

SDS 940 OLDS DIAGNOSTIC SYSTEM

UNIT 0 CPU TEST LISTING

SDS 870030-51A

February 1969

SDS

SCIENTIFIC DATA SYSTEMS • 701 South Aviation Boulevard • El Segundo, Calif., 90245 • 213/772-4511



CPU0 TAP=3.C 01/15 03101 PAGE 1

```
00010 OCTAL
*
0 01 00000 ONE OPD 0100000,1
0 02 00000 TWO OPD 0200000,1
0 03 00000 THREE OPD 0300000,1
0 04 00000 FOUR OPD 0400000,1
0 05 00000 FIVE OPD 0500000,1
0 06 00000 SIX OPD 0600000,1
0 07 00000 SEVEN OPD 0700000,1
0 10 00000 EIGHT OPD 01000000,1
*
00000242 INT31 EQU 242
00000243 I31 EQU 243
00000246 INT33 EQU 246
00000247 I33 EQU 247
00000332 FLAGS EQU 332
00000400 UA* EQU 400
00000401 STATUS EQU 401
00000402 LOCKS EQU 402
00000403 RADSIZ EQU 403
00000404 DSCSIZ EQU 404
00000405 SYSIZE EQU 405
00000406 SEED EQU 406
00000407 TIME EQU 407
00000410 AREG EQU 410
00000411 BREG EQU 411
00000412 XREG EQU 412
00000413 AVRFL0 EQU 413
00000414 ERRORS EQU 414
00000415 RL1 EQU 415
00000416 RL2 EQU 416
00000417 RL4 EQU 417
00000420 UNIT EQU 420
00000424 FUNCTN EQU 424
00000430 SUBJECT EQU 430
00000434 END EQU 434
```

CPU0 TAP=3.C 01/15 03101 PAGE 2

```
00000440 RETURN EQU 440
00000450 DIVERT EQU 450
00000452 DONE EQU 452
00000454 REPORT EQU 454
00000456 FDBNE EQU 456
00000460 ERROR EQU 460
```

```

      * 940 CPU DIAGNOSTIC
      00010 0CTAL
      CPU0 IDENT
      1 00 00000 PBP 0PD 10000000,1
      0 46 00000 RNC 0PD 04600000,2
      00000331 174 EQU 331
      00000261 T40 EQU 261
      00000263 T41 EQU 263
      00000267 T43 EQU 267
      00000271 T44 EQU 271
      00000 04000 ZERO BSS 4000
  
```

```

      * PRETEST
      04000 0 20 00000 NBP
      04001 0 20 20000 NBP JPT
      04002 0 40 20040 BPT4
      04003 0 01 06065 BRU SET940
      04004 0 51 04005 BRR **1 SET 0V IF 940 MODE
      04005 1 20 04005 NBP **1
      04006 0 43 04007 BRM **1
      04007 0 00 00000 PZE 0 BIT 2 WILL BE SET IF 940 MODE
      04010 0 76 04007 LDA **1
      04011 0 72 23445 SKA #10000000 IS IT 940 MODE
      04012 0 01 06065 BRU SET940 YES, SKIP PRETEST
      04013 4 40 00000 SKS1 SKS 0,4 SHOULD NOT SKIP
      04014 0 01 04020 BRU ***
      04015 0 40 20200 SKS 20200
      04016 0 01 04020 BRU **2
      04017 0 00 00000 HLT
      04020 0 40 20400 SKS 20400
      04021 0 01 04013 BRU SKS1
      04022 0 76 23446 SKS1 LDA #11111111
      04023 0 75 23447 LDB #0
      04024 4 50 23446 SKS #11111111,4 SHOULD SKIP
      04025 0 40 20200 SKS 20200
      04026 0 01 04030 BRU **2
      04027 0 00 00000 HLT
      04030 0 40 20400 SKS 20400
      04031 0 01 04022 BRU SKS1
  
```

CPUO	TAP=3.C	01/15	03101	PAGE 5	
04032	0 76 23450	SKE2	LDA	#22222222	
04033	0 75 23447		LDB	#0	
04034	4 50 23450		SKE	#22222222,4	SHOULD SKIP
04035	0 40 20200		SKS	20200	
04036	0 01 04040		BRU	**2	
04037	0 00 00000		HLT		
04040	0 40 20400		SKS	20400	
04041	0 01 04032		BRU	SKE2	
04042	0 76 23451	SKE3	LDA	#44444444	
04043	0 75 23447		LDB	#0	
04044	4 50 23451		SKE	#44444444,4	SHOULD SKIP
04045	0 40 20200		SKS	20200	
04046	0 01 04050		BRU	**2	
04047	0 00 00000		HLT		
04050	0 40 20400		SKS	20400	
04051	0 01 04042		BRU	SKE3	

CPUO	TAP=3.C	01/15	03101	PAGE 6	
04052	0 76 23452	SKE4	LDA	#1	
04053	0 75 23447		LDB	#0	
04054	4 50 23447		SKE	#0,4	SHOULD NOT SKIP
04055	0 01 04061		BRU	**4	
04056	0 40 20200		SKS	20200	
04057	0 01 04061		BRU	**2	
04060	0 00 00000		HLT		
04061	0 40 20400		SKS	20400	
04062	0 01 04052		BRU	SKE4	
04063	0 76 23453	SKE5	LDA	#2	
04064	0 75 23447		LDB	#0	
04065	4 50 23447		SKE	#0,4	SHOULD NOT SKIP
04066	0 01 04072		BRU	**4	
04067	0 40 20200		SKS	20200	
04070	0 01 04072		BRU	**2	
04071	0 00 00000		HLT		
04072	0 40 20400		SKS	20400	
04073	0 01 04063		BRU	SKE5	

CPU0 TAP=3.C 01/15 03101 PAGE 7

04074	0 76 23454	SKE6	LDA	#4
04075	0 75 23447		LDB	#0
04076	4 50 23447		SKE	#0,4
04077	0 01 04103		BRU	##4
04100	0 40 20200		SKS	20200
04101	0 01 04103		BRU	##2
04102	0 00 00000		HLT	
04103	0 40 20400		SKS	20400
04104	0 01 04074		BRU	SKE6
04105	0 76 23447	SKE7	LDA	#0
04106	0 75 23447		LDB	#0
04107	4 50 23452		SKE	#1,4
04110	0 01 04114		BRU	##4
04111	0 40 20200		SKS	20200
04112	0 01 04114		BRU	##2
04113	0 00 00000		HLT	
04114	0 40 20400		SKS	20400
04115	0 01 04105		BRU	SKE7

SHOULD NOT SKIP

SHOULD NOT SKIP

CPU0 TAP=3.C 01/15 03101 PAGE 8

04116	0 76 23447	SKE8	LDA	#0
04117	0 75 23447		LDB	#0
04120	4 50 23453		SKE	#2,4
04121	0 01 04125		BRU	##4
04122	0 40 20200		SKS	20200
04123	0 01 04125		BRU	##2
04124	0 00 00000		HLT	
04125	0 40 20400		SKS	20400
04126	0 01 04116		BRU	SKE8
04127	0 76 23447	SKE9	LDA	#0
04130	0 75 23447		LDB	#0
04131	4 50 23454		SKE	#4,4
04132	0 01 04136		BRU	##4
04133	0 40 20200		SKS	20200
04134	0 01 04136		BRU	##2
04135	0 00 00000		HLT	
04136	0 40 20400		SKS	20400
04137	0 01 04127		BRU	SKE9

SHOULD NOT SKIP

SHOULD NOT SKIP

CPUO	TAP=3.C	01/15	03101	PAGE 9	
04140	0 76 23447	SKE10	LDA	#0	
04141	0 75 23447		LDB	#0	
04142	4 50 23447		SKE	#014	SHOULD SKIP
04143	0 40 20200		SKS	20200	
04144	0 01 04166		BRU	**2	
04145	0 00 00000		HLT		
04146	0 40 20400		SKS	20400	
04147	0 01 04140		BRU	SKE10	

CPUO	TAP=3.C	01/15	03101	PAGE 10	
04150	0 76 23455	SKE11	LDA	#07070707	
04151	0 75 23456		LDB	#00770077	
04152	0 71 23457		LDX	#00777700	
04153	4 50 23455		SKE	#07070707,4	SHOULD SKIP
04154	0 40 20200		SKS	20200	
04155	0 01 04157		BRU	**2	
04156	0 00 00000		HLT		
04157	0 35 23441		STA	TEMPA	
04160	0 36 23442		STB	TEMPB	
04161	0 37 23440		STX	TEMPX	
04162	0 50 23455		SKE	#07070707	
04163	0 40 20200		SKS	20200	
04164	0 01 04166		BRU	**2	
04165	0 00 00000		HLT	0	A WRONG
04166	0 76 23442		LDA	TEMPB	
04167	0 50 23456		SKE	#00770077	
04170	0 40 20200		SKS	20200	
04171	0 01 04173		BRU	**2	
04172	0 00 00000		HLT	0	B WRONG
04173	0 76 23440		LDA	TEMPX	
04174	0 50 23457		SKE	#00777700	
04175	0 40 20200		SKS	20200	
04176	0 01 04200		BRU	**2	
04177	0 00 00000		HLT	0	X WRONG
04200	0 40 20400		SKS	20400	
04201	0 01 04150		BRU	SKE11	

CPU0	TAP=3.0	01/15	03101	PAGE 11	
04202	0 76 23447	SKA1	LDA	#0	
04203	0 75 23460		LDB	#77777777	
04204	0 71 23461		LDX	#01234567	
04205	4 72 23460		SKA	#77777777,4	SHOULD SKIP
04206	0 40 20200		SKS	20200	
04207	0 01 04211		BRU	**2	
04210	0 00 00000		HLT	0	
04211	0 35 23441		STA	TEMPA	
04212	0 36 23442		STB	TEMPB	
04213	0 37 23440		STX	TEMPX	
04214	0 50 23447		SKE	#0	
04215	0 40 20200		SKS	20200	
04216	0 01 04220		BRU	**2	
04217	0 00 00000		HLT	0	A WRONG
04220	0 76 23442		LDA	TEMPB	
04221	0 50 23460		SKE	#77777777	
04222	0 40 20200		SKS	20200	
04223	0 01 04225		BRU	**2	
04224	0 00 00000		HLT	0	B WRONG
04225	0 76 23440		LDA	TEMPX	
04226	0 50 23461		SKE	#01234567	
04227	0 40 20200		SKS	20200	
04230	0 C1 04232		BRU	**2	
04231	0 00 00000		HLT	0	X WRONG
04232	0 40 20400		SKS	20400	
04233	0 C1 04202		BRU	SKA1	

CPU0	TAP=3.0	01/15	03101	PAGE 12	
04234	0 76 23460	SKA2	LDA	#77777777	
04235	0 75 23455		LDB	#7070707	
04236	0 71 23456		LDX	#770077	
04237	4 72 23447		SKA	#0,4	SHOULD SKIP
04240	0 40 20200		SKS	20200	
04241	0 01 04243		BRU	**2	
04242	0 00 00000		HLT	0	
04243	0 35 23441		STA	TEMPA	
04244	0 36 23442		STB	TEMPB	
04245	0 37 23440		STX	TEMPX	
04246	0 50 23460		SKE	#77777777	
04247	0 40 20200		SKS	20200	
04250	0 C1 04252		BRU	**2	
04251	0 00 00000		HLT	0	A WRONG
04252	0 76 23442		LDA	TEMPB	
04253	0 50 23455		SKE	#7070707	
04254	0 40 20200		SKS	20200	
04255	0 01 04257		BRU	**2	
04256	0 00 00000		HLT	0	B WRONG
04257	0 76 23440		LDA	TEMPX	
04260	0 50 23456		SKE	#770077	
04261	0 40 20200		SKS	20200	
04262	0 01 04264		BRU	**2	
04263	0 00 00000		HLT	0	X WRONG
04264	0 40 20400		SKS	20400	
04265	0 01 04234		BRU	SKA2	

CPU0	TAP=3.C	01/15	03101	PAGE 13	
04266	0 76 23452	SKA3	LDA	#1	
04267	0 75 23453		LDB	#2	
04270	0 71 23454		LDX	#4	
04271	4 72 23452		SKA	#1,4	SHOULD NOT SKIP
04272	0 01 04276		BRU	**4	
04273	0 40 20200		SKS	20200	
04274	0 01 04276		BRU	**2	
04275	0 00 00000		HLT		
04276	0 35 23441		STA	TEMPA	
04277	0 36 23442		STB	TEMPB	
04300	0 37 23440		STX	TEMPX	
04301	0 50 23452		SKE	#1	
04302	0 40 20200		SKS	20200	
04303	0 01 04305		BRU	**2	
04304	0 00 00000		HLT	0	A WRONG
04305	0 76 23442		LDA	TEMPB	
04306	0 50 23453		SKE	#2	
04307	0 40 20200		SKS	20200	
04310	0 01 04312		BRU	**2	
04311	0 00 00000		HLT	0	B WRONG
04312	0 76 23440		LDA	TEMPX	
04313	0 50 23454		SKE	#4	
04314	0 40 20200		SKS	20200	
04315	0 01 04317		BRU	**2	
04316	0 00 00000		HLT	0	X WRONG
04317	0 40 20400		SKS	20400	
04320	0 01 04266		BRU	SKA3	

CPU0	TAP=3.C	01/15	03101	PAGE 14	
04321	0 76 23453	SKA4	LDA	#2	
04322	0 75 23454		LDB	#4	
04323	0 71 23452		LDX	#1	
04324	4 72 23453		SKA	#2,4	SHOULD NOT SKIP
04325	0 01 04331		BRU	**4	
04326	0 40 20200		SKS	20200	
04327	0 01 04331		BRU	**2	
04330	0 00 00000		HLT		
04331	0 35 23441		STA	TEMPA	
04332	0 36 23442		STB	TEMPB	
04333	0 37 23440		STX	TEMPX	
04334	0 50 23453		SKE	#2	
04335	0 40 20200		SKS	20200	
04336	0 01 04340		BRU	**2	
04337	0 00 00000		HLT	0	A WRONG
04340	0 76 23442		LDA	TEMPB	
04341	0 50 23454		SKE	#4	
04342	0 40 20200		SKS	20200	
04343	0 01 04345		BRU	**2	
04344	0 00 00000		HLT	0	B WRONG
04345	0 76 23440		LDA	TEMPX	
04346	0 50 23452		SKE	#1	
04347	0 40 20200		SKS	20200	
04350	0 01 04352		BRU	**2	
04351	0 00 00000		HLT	0	X WRONG
04352	0 40 20400		SKS	20400	
04353	0 01 04321		BRU	SKA4	

CPU0	TAP=3.C	01/15	03101	PAGE 15	
04354	0 76 23454	SKA5	LDA	#4	
04355	0 75 23452		LDB	#1	
04356	0 71 23453		LDX	#2	
04357	4 72 23454		SKA	#4,4	SHOULD NOT SKIP
04360	0 01 04364		BRU	**4	
04361	0 40 20200		SKS	20200	
04362	0 01 04364		BRU	**2	
04363	0 00 00000		HLT		
04364	0 35 23441		STA	TEMPA	
04365	0 36 23442		STB	TEMPB	
04366	0 37 23440		STX	TEMPX	
04367	0 50 23454		SKE	#4	
04370	0 40 20200		SKS	20200	
04371	0 01 04373		BRU	**2	
04372	0 00 00000		HLT	0	A WRONG
04373	0 76 23442		LDA	TEMPB	
04374	0 50 23452		SKE	#1	
04375	0 40 20200		SKS	20200	
04376	0 01 04400		BRU	**2	
04377	0 00 00000		HLT	0	B WRONG
04400	0 76 23440		LDA	TEMPX	
04401	0 50 23453		SKE	#2	
04402	0 40 20200		SKS	20200	
04403	0 01 04405		BRU	**2	
04404	0 00 00000		HLT	0	X WRONG
04405	0 40 20400		SKS	20400	
04406	0 01 04354		BRU	SKA5	

CPU0	TAP=3.C	01/15	03101	PAGE 16	
04407	0 76 23460	SKM1	LDA	#77777777	
04410	0 75 23447		LDB	#0	
04411	0 71 23447		LDX	#0	
04412	4 70 23460		SKM	#77777777,4	SHOULD SKIP
04413	0 40 20200		SKS	20200	
04414	0 01 04416		BRU	**2	
04415	0 00 00000		HLT		
04416	0 35 23441		STA	TEMPA	
04417	0 36 23442		STB	TEMPB	
04420	0 37 23440		STX	TEMPX	
04421	0 50 23460		SKE	#77777777	
04422	0 40 20200		SKS	20200	
04423	0 01 04425		BRU	**2	
04424	0 00 00000		HLT	0	A WRONG
04425	0 76 23442		LDA	TEMPB	
04426	0 50 23447		SKE	#0	
04427	0 40 20200		SKS	20200	
04430	0 01 04432		BRU	**2	
04431	0 00 00000		HLT	0	B WRONG
04432	0 76 23440		LDA	TEMPX	
04433	0 50 23447		SKE	#0	
04434	0 40 20200		SKS	20200	
04435	0 01 04437		BRU	**2	
04436	0 00 00000		HLT	0	X WRONG
04437	0 40 20400		SKS	20400	
04440	0 01 04407		BRU	SKM1	

CPU0	TAP=3.C	01/15	03101	PAGE 17	
04441	0 76 23460	SKM2	LDA	#77777777	
04442	0 75 23447		LDB	#0	
04443	0 71 23447		LDX	#0	
04444	4 70 23447		SKM	#0,4	SHOULD SKIP
04445	0 40 20200		SKS	20200	
04446	0 01 04450		BRU	**2	
04447	0 00 00000		HLT		
04450	0 35 23441		STA	TEMPA	
04451	0 36 23442		STB	TEMPB	
04452	0 37 23440		STX	TEMPX	
04453	0 50 23460		SKE	#77777777	
04454	0 40 20200		SKS	20200	
04455	0 01 04457		BRU	**2	
04456	0 00 00000		HLT	0	A WRONG
04457	0 76 23442		LDA	TEMPB	
04460	0 50 23447		SKE	#0	
04461	0 40 20200		SKS	20200	
04462	0 01 04464		BRU	**2	
04463	0 00 00000		HLT	0	B WRONG
04464	0 76 23440		LDA	TEMPX	
04465	0 50 23447		SKE	#0	
04466	0 40 20200		SKS	20200	
04467	0 01 04471		BRU	**2	
04470	0 00 00000		HLT	0	X WRONG
04471	0 40 20400		SKS	20400	
04472	0 01 04441		BRU	SKM2	

CPU0	TAP=3.C	01/15	03101	PAGE 18	
04473	0 76 23447	SKM3	LDA	#0	
04474	0 75 23452		LDB	#1	
04475	0 71 23462		LDX	#52525252	SHOULD NOT SKIP
04476	4 70 23452		SKM	#1,4	
04477	0 01 04503		BRU	**4	
04500	0 40 20200		SKS	20200	
04501	0 01 04503		BRU	**2	
04502	0 00 00000		HLT		
04503	0 35 23441		STA	TEMPA	
04504	0 36 23442		STB	TEMPB	
04505	0 37 23440		STX	TEMPX	
04506	0 50 23447		SKE	#0	
04507	0 40 20200		SKS	20200	
04510	0 01 04512		BRU	**2	
04511	0 00 00000		HLT	0	A WRONG
04512	0 76 23442		LDA	TEMPB	
04513	0 50 23452		SKE	#1	
04514	0 40 20200		SKS	20200	
04515	0 01 04517		BRU	**2	
04516	0 00 00000		HLT	0	B WRONG
04517	0 76 23440		LDA	TEMPX	
04520	0 50 23462		SKE	#52525252	
04521	0 40 20200		SKS	20200	
04522	0 01 04524		BRU	**2	
04523	0 00 00000		HLT	0	X WRONG
04524	0 40 20400		SKS	20400	
04525	0 01 04473		BRU	SKM3	

```

CPU0  TAP=3.0  01/15  03101  PAGE 19
04526  0 76 23447  SKM4  LDA  #0
04527  0 75 23453          LDB  #2
04530  0 71 23463          LDX  #25252525
04531  4 70 23453          SKM  #274          SHOULD NOT SKIP
04532  0 01 04536          BRU  #44
04533  0 40 20200          SKS  20200
04534  0 01 04536          BRU  **2
04535  0 00 00000          HLT
04536  0 35 23441          STA  TEMPA
04537  0 36 23442          STB  TEMPB
04540  0 37 23440          STX  TEMPX
04541  0 50 23447          SKE  #0
04542  0 40 20200          SKS  20200
04543  0 01 04543          BRU  **2
04544  0 00 00000          HLT  0          A WRONG
04545  0 76 23442          LDA  TEMPB
04546  0 50 23453          SKE  #2
04547  0 40 20200          SKS  20200
04550  0 01 04552          BRU  **2
04551  0 00 00000          HLT  0          B WRONG
04552  0 76 23440          LDA  TEMPX
04553  0 50 23463          SKE  #25252525
04554  0 40 20200          SKS  20200
04555  0 01 04557          BRU  **2
04556  0 00 00000          HLT  0          X WRONG
04557  0 40 20400          SKS  20400
04560  0 01 04526          BRU  SKM4

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 20
04561  0 76 23447  SKM5  LDA  #0
04562  0 75 23454          LDB  #4
04563  0 71 23447          LDX  #0
04564  0 70 23454          SKM  #670          SHOULD NOT SKIP
04565  0 01 04571          BRU  #44
04566  0 40 20200          SKS  20200
04567  0 01 04571          BRU  **2
04570  0 00 00000          HLT
04571  0 35 23441          STA  TEMPA
04572  0 36 23442          STB  TEMPB
04573  0 37 23440          STX  TEMPX
04574  0 50 23447          SKE  #0
04575  0 40 20200          SKS  20200
04576  0 01 04600          BRU  **2
04577  0 00 00000          HLT  0          A WRONG
04600  0 76 23442          LDA  TEMPB
04601  0 50 23454          SKE  #4
04602  0 40 20200          SKS  20200
04603  0 01 04605          BRU  **2
04604  0 00 00000          HLT  0          B WRONG
04605  0 76 23440          LDA  TEMPX
04606  0 50 23447          SKE  #0
04607  0 40 20200          SKS  20200
04610  0 01 04612          BRU  **2
04611  0 00 00000          HLT  0          X WRONG
04612  0 40 20400          SKS  20400
04613  0 01 04561          BRU  SKM5

```

CPUO	TAP=3.C	01/15	03101	PAGE 21	
04614	0 76 23461	SKN1	LDA	#01234567	
04615	0 75 23464		LDB	#76543210	
04616	0 71 23465		LDX	#25255252	
04617	4 53 23466		SKN	#457,4	SHOULD SKIP
04620	0 40 20200		SKS	20200	
04621	0 01 04623		BRU	**2	
04622	0 00 00000		HLT		
04623	0 35 23441		STA	TEMPA	
04624	0 36 23442		STB	TEMPB	
04625	0 37 23440		STX	TEMPX	
04626	0 50 23461		SKE	#01234567	
04627	0 40 20200		SKS	20200	
04630	0 01 04632		BRU	**2	
04631	0 00 00000		HLT	0	A WRONG
04632	0 76 23442		LDA	TEMPB	
04633	0 50 23464		SKE	#76543210	
04634	0 40 20200		SKS	20200	
04635	0 01 04637		BRU	**2	
04636	0 00 00000		HLT	0	B WRONG
04637	0 76 23440		LDA	TEMPX	
04640	0 50 23465		SKE	#25255252	
04641	0 40 20200		SKS	20200	
04642	0 01 04644		BRU	**2	
04643	0 00 00000		HLT	0	X WRONG
04644	0 40 20400		SKS	20400	
04645	0 01 04614		BRU	SKN1	

CPUO	TAP=3.C	01/15	03101	PAGE 22	
04646	0 76 23455	SKN2	LDA	#7070707	
04647	0 75 23467		LDB	#70707070	
04650	0 71 23460		LDX	#77777777	
04651	4 53 23470		SKN	#37777777,4	SHOULD NOT SKIP
04652	0 01 04656		BRU	**4	
04653	0 40 20200		SKS	20200	
04654	0 01 04656		BRU	**2	
04655	0 00 00000		HLT		
04656	0 35 23441		STA	TEMPA	
04657	0 36 23442		STB	TEMPB	
04660	0 37 23440		STX	TEMPX	
04661	0 50 23455		SKE	#7070707	
04662	0 40 20200		SKS	20200	
04663	0 01 04665		BRU	**2	
04664	0 00 00000		HLT	0	A WRONG
04665	0 76 23442		LDA	TEMPB	
04666	0 50 23467		SKE	#70707070	
04667	0 40 20200		SKS	20200	
04670	0 01 04672		BRU	**2	
04671	0 00 00000		HLT	0	B WRONG
04672	0 76 23440		LDA	TEMPX	
04673	0 50 23460		SKE	#77777777	
04674	0 40 20200		SKS	20200	
04675	0 01 04677		BRU	**2	
04676	0 00 00000		HLT	0	X WRONG
04677	0 40 20400		SKS	20400	
04700	0 01 04646		BRU	SKN2	

CPU0	TAP=3.0	01/15	03101	PAGE 23	
04701	0 76 23460	SKB1	LDA	#77777777	
04702	0 75 23447		LDB	#0	
04703	0 71 23447		LDX	#0	
04704	4 52 23460		SKB	#77777777,4	SHOULD SKIP
04705	0 40 20200		SKS	20200	
04706	0 01 04710		BRU	**2	
04707	0 00 00000		HLT		
04710	0 35 23441		STA	TEMPA	
04711	0 36 23442		STB	TEMPB	
04712	0 37 23440		STX	TEMPX	
04713	0 50 23460		SKE	#77777777	
04714	0 40 20200		SKS	20200	
04715	0 01 04717		BRU	**2	
04716	0 00 00000		HLT	0	A WRONG
04717	0 76 23442		LDA	TEMPB	
04720	0 50 23447		SKE	#0	
04721	0 40 20200		SKS	20200	
04722	0 01 04724		BRU	**2	
04723	0 00 00000		HLT	0	B WRONG
04724	0 76 23440		LDA	TEMPX	
04725	0 50 23447		SKE	#0	
04726	0 40 20200		SKS	20200	
04727	0 01 04731		BRU	**2	
04730	0 00 00000		HLT	0	X WRONG
04731	0 40 20400		SKS	20400	
04732	0 01 04701		BRU	SKB1	

CPU0	TAP=3.0	01/15	03101	PAGE 24	
04733	0 76 23447	SKB2	LDA	#0	
04734	0 75 23460		LDB	#77777777	
04735	0 71 23447		LDX	#0	
04736	4 52 23447		SKB	#0,4	SHOULD SKIP
04737	0 40 20200		SKS	20200	
04740	0 01 04742		BRU	**2	
04741	0 00 00000		HLT		
04742	0 35 23441		STA	TEMPA	
04743	0 36 23442		STB	TEMPB	
04744	0 37 23440		STX	TEMPX	
04745	0 50 23447		SKE	#0	
04746	0 40 20200		SKS	20200	
04747	0 01 04751		BRU	**2	
04750	0 00 00000		HLT	0	A WRONG
04751	0 76 23442		LDA	TEMPB	
04752	0 50 23460		SKE	#77777777	
04753	0 40 20200		SKS	20200	
04754	0 01 04756		BRU	**2	
04755	0 00 00000		HLT	0	B WRONG
04756	0 76 23440		LDA	TEMPX	
04757	0 50 23447		SKE	#0	
04760	0 40 20200		SKS	20200	
04761	0 01 04763		BRU	**2	
04762	0 00 00000		HLT	0	X WRONG
04763	0 40 20400		SKS	20400	
04764	0 01 04733		BRU	SKB2	

CPU0	TAP=3.0	01/15	03101	PAGE 25	
04765	0 76 23452	SKB3	LDA	#1	
04766	0 75 23452		LDB	#1	
04767	0 71 23452		LDX	#1	
04770	4 52 23452		SKB	#1,4	SHOULD NOT SKIP
04771	0 01 04775		BRU	##4	
04772	0 40 20200		SKS	20200	
04773	0 01 04775		BRU	##2	
04774	0 00 00000		HLT	0	
04775	0 35 23441		STA	TEMPA	
04776	0 36 23442		STB	TEMPB	
04777	0 37 23440		STX	TEMPX	
05000	0 50 23452		SKE	#1	
05001	0 40 20200		SKS	20200	
05002	0 01 05004		BRU	##2	
05003	0 00 00000		HLT	0	A WRONG
05004	0 76 23442		LDA	TEMPB	
05005	0 50 23452		SKE	#1	
05006	0 40 20200		SKS	20200	
05007	0 01 05011		BRU	##2	
05010	0 00 00000		HLT	0	B WRONG
05011	0 76 23440		LDA	TEMPX	
05012	0 50 23452		SKE	#1	
05013	0 40 20200		SKS	20200	
05014	0 01 05016		BRU	##2	
05015	0 00 00000		HLT	0	X WRONG
05016	0 40 20400		SKS	20400	
05017	0 01 04765		BRU	SKB3	

CPU0	TAP=3.0	01/15	03101	PAGE 26	
05020	0 76 23453	SKB4	LDA	#2	
05021	0 75 23453		LDB	#2	
05022	0 71 23453		LDX	#2	
05023	4 52 23453		SKB	#2,4	SHOULD NOT SKIP
05024	0 01 05030		BRU	##4	
05025	0 40 20200		SKS	20200	
05026	0 01 05030		BRU	##2	
05027	0 00 00000		HLT	0	
05030	0 35 23441		STA	TEMPA	
05031	0 36 23442		STB	TEMPB	
05032	0 37 23440		STX	TEMPX	
05033	0 50 23453		SKE	#2	
05034	0 40 20200		SKS	20200	
05035	0 01 05037		BRU	##2	
05036	0 00 00000		HLT	0	A WRONG
05037	0 76 23442		LDA	TEMPB	
05040	0 50 23453		SKE	#2	
05041	0 40 20200		SKS	20200	
05042	0 01 05044		BRU	##2	
05043	0 00 00000		HLT	0	B WRONG
05044	0 76 23440		LDA	TEMPX	
05045	0 50 23453		SKE	#2	
05046	0 40 20200		SKS	20200	
05047	0 01 05051		BRU	##2	
05050	0 00 00000		HLT	0	X WRONG
05051	0 40 20400		SKS	20400	
05052	0 01 05020		BRU	SKB4	

CPU0 TAP=3.0 01/15 03101 PAGE 27

05053	0 76 23454	SKB5	LDA	#4	
05054	0 75 23454		LDB	#4	
05055	0 71 23454		LDX	#4	
05056	4 52 23454		SKB	#4,4	SHOULD NOT SKIP
05057	0 01 05063		BRU	##4	
05060	0 40 20200		SKS	20200	
05061	0 01 05063		BRU	##2	
05062	0 00 00000		HLT		
05063	0 35 23441		STA	TEMPA	
05064	0 36 23442		STB	TEMPB	
05065	0 37 23440		STX	TEMPX	
05066	0 50 23454		SKE	#4	
05067	0 40 20200		SKS	20200	
05070	0 01 05072		BRU	##2	
05071	0 00 00000		HLT	0	A WRONG
05072	0 76 23442		LDA	TEMPB	
05073	0 50 23454		SKE	#4	
05074	0 40 20200		SKS	20200	
05075	0 01 05077		BRU	##2	
05076	0 00 00000		HLT	0	B WRONG
05077	0 76 23440		LDA	TEMPX	
05100	0 50 23454		SKE	#4	
05101	0 40 20200		SKS	20200	
05102	0 01 05104		BRU	##2	
05103	0 00 00000		HLT	0	X WRONG
05104	0 40 20400		SKS	20400	
05105	0 01 05053		BRU	SKB5	

CPU0 TAP=3.0 01/15 03101 PAGE 28

05106	0 76 23471	ETR	LDA	#77	
05107	0 75 23461		LDB	#01234567	
05110	0 71 23460		LDX	#=1	
05111	4 14 23472		ETR	#707,4	
05112	0 35 23441		STA	TEMPA	
05113	0 36 23442		STB	TEMPB	
05114	0 37 23440		STX	TEMPX	
05115	0 50 23473		SKE	#7	
05116	0 40 20200		SKS	20200	
05117	0 01 05121		BRU	##2	
05120	0 00 00000		HLT	0	A WRONG
05121	0 76 23442		LDA	TEMPB	
05122	0 50 23461		SKE	#01234567	
05123	0 40 20200		SKS	20200	
05124	0 01 05126		BRU	##2	
05125	0 00 00000		HLT	0	B WRONG
05126	0 76 23440		LDA	TEMPX	
05127	0 50 23460		SKE	#=1	
05130	0 40 20200		SKS	20200	
05131	0 01 05133		BRU	##2	
05132	0 00 00000		HLT	0	X WRONG
05133	0 40 20400		SKS	20400	
05134	0 01 05106		BRU	ETR	

CPU0	TAP=3.0	01/15	03101	PAGE 29
05135	0 76 23471	EOR	LDA	#77
05136	0 75 23461		LDB	#01234567
05137	0 71 23464		LDX	#76543210
05140	4 17 23472		EOR	#707,4
05141	0 35 23441		STA	TEMPA
05142	0 36 23442		STB	TEMPB
05143	0 37 23440		STX	TEMPX
05144	0 50 23474		SKE	#770
05145	0 40 20200		SKS	20200
05146	0 01 05150		BRU	**2
05147	0 00 00000		HLT	0
05150	0 76 23442		LDA	TEMPB
05151	0 50 23461		SKE	#01234567
05152	0 40 20200		SKS	20200
05153	0 01 05155		BRU	**2
05154	0 00 00000		HLT	0
05155	0 76 23440		LDA	TEMPX
05156	0 50 23464		SKE	#76543210
05157	0 40 20200		SKS	20200
05160	0 01 05162		BRU	**2
05161	0 00 00000		HLT	0
05162	0 40 20400		SKS	20400
05163	0 01 05135		BRU	EOR

A WRONG

B WRONG

X WRONG

CPU0	TAP=3.0	01/15	03101	PAGE 30
05164	0 76 23471	MRG	LDA	#77
05165	0 75 23460		LDB	#=1
05166	0 71 23447		LDX	#0
05167	4 16 23472		MRG	#707,4
05170	0 35 23441		STA	TEMPA
05171	0 36 23442		STB	TEMPB
05172	0 37 23440		STX	TEMPX
05173	0 50 23475		SKE	#777
05174	0 40 20200		SKS	20200
05175	0 01 05177		BRU	**2
05176	0 00 00000		HLT	0
05177	0 76 23442		LDA	TEMPB
05200	0 50 23460		SKE	#=1
05201	0 40 20200		SKS	20200
05202	0 01 05204		BRU	**2
05203	0 00 00000		HLT	0
05204	0 76 23440		LDA	TEMPX
05205	0 50 23447		SKE	#0
05206	0 40 20200		SKS	20200
05207	0 01 05211		BRU	**2
05210	0 00 00000		HLT	0
05211	0 40 20400		SKS	20400
05212	0 01 05164		BRU	MRG

A WRONG

B WRONG

X WRONG

```

CPU0  TAP=3.C  01/15  03101  PAGE 31
05213  0 76 23470  MIN1  LDA  #37777777
05214  0 35 23443  STA  TEMPC
05215  0 76 23476  LDA  #2552
05216  0 75 23477  LDB  #5225
05217  0 71 23500  LDX  #7777
05220  4 61 23443  MIN  TEMPC,4
05221  0 35 23444  STA  TEMPD
05222  0 76 23443  LDA  TEMPC
05223  0 50 23466  SKE  #487
05224  0 40 20200  SKS  20200
05225  0 01 05227  BRU  **2
05226  0 00 00000  HLT
05227  0 76 23444  LDA  TEMPD
05230  0 35 23441  STA  TEMPA
05231  0 36 23442  STB  TEMPB
05232  0 37 23440  STX  TEMPX
05233  0 50 23476  SKE  #2552
05234  0 40 20200  SKS  20200
05235  0 01 05237  BRU  **2
05236  0 00 00000  HLT  A WRONG
05237  0 76 23442  LDA  TEMPB
05240  0 50 23477  SKE  #5225
05241  0 40 20200  SKS  20200
05242  0 01 05244  BRU  **2
05243  0 00 00000  HLT  B WRONG
05244  0 76 23440  LDA  TEMPX
05245  0 50 23500  SKE  #7777
05246  0 40 20200  SKS  20200
05247  0 01 05251  BRU  **2
05250  0 00 00000  HLT  X WRONG
05251  0 40 20400  SKS  20400
05252  0 01 05213  BRU  MIN1

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 32
05253  0 76 23460  MIN2  LDA  #1
05254  0 35 23443  STA  TEMPC
05255  0 76 23446  LDA  #11111111
05256  0 75 23450  LDB  #22222222
05257  0 71 23451  LDX  #44444444
05260  4 61 23443  MIN  TEMPC,4
05261  0 35 23444  STA  TEMPD
05262  0 76 23443  LDA  TEMPC
05263  0 72 23460  SKA  #77777777
05264  0 40 20200  SKS  20200
05265  0 01 05267  BRU  **2
05266  0 00 00000  HLT
05267  0 76 23444  LDA  TEMPD
05270  0 35 23441  STA  TEMPA
05271  0 36 23442  STB  TEMPB
05272  0 37 23440  STX  TEMPX
05273  0 50 23446  SKE  #11111111
05274  0 40 20200  SKS  20200
05275  0 01 05277  BRU  **2
05276  0 00 00000  HLT  A WRONG
05277  0 76 23442  LDA  TEMPB
05300  0 50 23450  SKE  #22222222
05301  0 40 20200  SKS  20200
05302  0 01 05304  BRU  **2
05303  0 00 00000  HLT  B WRONG
05304  0 76 23440  LDA  TEMPX
05305  0 50 23451  SKE  #44444444
05306  0 40 20200  SKS  20200
05307  0 01 05311  BRU  **2
05310  0 00 00000  HLT  X WRONG
05311  0 40 20400  SKS  20400
05312  0 01 05253  BRU  MIN2

```

CPUO	TAP=3.0	01/15	03101	PAGE 33
05313	0 76 23447	MIN3	LDA	#0
05314	0 35 23443		STA	TEMPC
05315	0 76 23450		LDA	#22222222
05316	0 75 23451		LDB	#44444444
05317	0 71 23446		LDX	#11111111
05320	4 61 23443		MIN	TEMPC,4
05321	0 35 23444		STA	TEMPD
05322	0 76 23443		LDA	TEMPC
05323	0 50 23452		SKE	#1
05324	0 40 20200		SKS	20200
05325	0 01 05327		BRU	**2
05326	0 00 00000		HLT	
05327	0 76 23444		LDA	TEMPD
05330	0 35 23441		STA	TEMPA
05331	0 36 23442		STB	TEMPB
05332	0 37 23440		STX	TEMPX
05333	0 50 23450		SKE	#22222222
05334	0 40 20200		SKS	20200
05335	0 01 05337		BRU	**2
05336	0 00 00000		HLT	0
				A WRONG
05337	0 76 23442		LDA	TEMPB
05340	0 50 23451		SKE	#44444444
05341	0 40 20200		SKS	20200
05342	0 01 05344		BRU	**2
05343	0 00 00000		HLT	0
				B WRONG
05344	0 76 23440		LDA	TEMPX
05345	0 50 23446		SKE	#11111111
05346	0 40 20200		SKS	20200
05347	0 01 05351		BRU	**2
05350	0 00 00000		HLT	0
				X WRONG
05351	0 40 20400		SKS	20400
05352	0 01 05313		BRU	MIN3

CPUO	TAP=3.0	01/15	03101	PAGE 34
05353	0 76 23501	MIN4	LDA	#2
05354	0 35 23443		STA	TEMPC
05355	0 76 23451		LDA	#44444444
05356	0 75 23446		LDB	#11111111
05357	0 71 23450		LDX	#22222222
05360	4 61 23443		MIN	TEMPC,4
05361	0 35 23444		STA	TEMPD
05362	0 76 23443		LDA	TEMPC
05363	0 50 23460		SKE	#1
05364	0 40 20200		SKS	20200
05365	0 01 05367		BRU	**2
05366	0 00 00000		HLT	
05367	0 76 23444		LDA	TEMPD
05370	0 35 23441		STA	TEMPA
05371	0 36 23442		STB	TEMPB
05372	0 37 23440		STX	TEMPX
05373	0 50 23451		SKE	#44444444
05374	0 40 20200		SKS	20200
05375	0 01 05377		BRU	**2
05376	0 00 00000		HLT	0
				A WRONG
05377	0 76 23442		LDA	TEMPB
05400	0 50 23446		SKE	#11111111
05401	0 40 20200		SKS	20200
05402	0 01 05404		BRU	**2
05403	0 00 00000		HLT	0
				B WRONG
05404	0 76 23440		LDA	TEMPX
05405	0 50 23450		SKE	#22222222
05406	0 40 20200		SKS	20200
05407	0 01 05411		BRU	**2
05410	0 00 00000		HLT	0
				X WRONG
05411	0 40 20400		SKS	20400
05412	0 01 05353		BRU	MIN4

CPU0	TAP=3.0	01/15	03101	PAGE 35
05413	0 76 23451	RCY1	LDA	#####
05414	0 75 23451		LDB	#####
05415	0 71 23460		LDX	#=1
05416	+ 66 20001		RCY	1/4
05417	0 35 23441		STA	TEMPA
05420	0 36 23442		STB	TEMPB
05421	0 37 23440		STX	TEMPX
05422	0 50 23450		SKE	#22222222
05423	0 40 20200		SKS	20200
05424	0 01 05426		BRU	**2
05425	0 00 00000		HLT	0
				A WRONG
05426	0 76 23442		LDA	TEMPB
05427	0 50 23450		SKE	#22222222
05430	0 40 20200		SKS	20200
05431	0 01 05433		BRU	**2
05432	0 00 00000		HLT	0
				B WRONG
05433	0 76 23440		LDA	TEMPX
05434	0 50 23460		SKE	#=1
05435	0 40 20200		SKS	20200
05436	0 01 05440		BRU	**2
05437	0 00 00000		HLT	0
				X WRONG
05440	0 40 20400		SKS	20400
05441	0 01 05413		BRU	RCY1

CPU0	TAP=3.0	01/15	03101	PAGE 36
05442	0 76 23450	RCY2	LDA	#22222222
05443	0 75 23450		LDB	#22222222
05444	0 71 23460		LDX	#=1
05445	+ 66 20001		RCY	1/4
05446	0 35 23441		STA	TEMPA
05447	0 36 23442		STB	TEMPB
05450	0 37 23440		STX	TEMPX
05451	0 50 23446		SKE	#11111111
05452	0 40 20200		SKS	20200
05453	0 01 05455		BRU	**2
05454	0 00 00000		HLT	0
				A WRONG
05455	0 76 23442		LDA	TEMPB
05456	0 50 23446		SKE	#11111111
05457	0 40 20200		SKS	20200
05460	0 01 05462		BRU	**2
05461	0 00 00000		HLT	0
				B WRONG
05462	0 76 23440		LDA	TEMPX
05463	0 50 23460		SKE	#=1
05464	0 40 20200		SKS	20200
05465	0 01 05467		BRU	**2
05466	0 00 00000		HLT	0
				X WRONG
05467	0 40 20400		SKS	20400
05470	0 01 05442		BRU	RCY2

CPUO	TAP#3.0	01/15	03101	PAGE 37
05471	0 76 23446	RCY3	LDA	#11111111
05472	0 75 23446		LDB	#11111111
05473	0 71 23447		LDX	#0
05474	* 66 20001		RCY	1,4
05475	0 35 23441		STA	TEMPA
05476	0 36 23442		STB	TEMPB
05477	0 37 23440		STX	TEMPX
05500	0 50 23451		SKE	#44444444
05501	0 40 20200		SKS	20200
05502	0 01 05504		BRU	**2
05503	0 00 00000		HLT	0
05504	0 76 23442		LDA	TEMPB
05505	0 50 23451		SKE	#44444444
05506	0 40 20200		SKS	20200
05507	0 01 05511		BRU	**2
05510	0 00 00000		HLT	0
05511	0 76 23440		LDA	TEMPX
05512	0 50 23447		SKE	#0
05513	0 40 20200		SKS	20200
05514	0 01 05516		BRU	**2
05515	0 00 00000		HLT	0
05516	0 40 20400		SKS	20400
05517	0 01 05471		BRU	RCY3

A WRONG

B WRONG

X WRONG

CPUO	TAP#3.0	01/15	03101	PAGE 38
05520	0 76 23461	RCY4	LDA	#01234567
05521	0 75 23464		LDB	#76543210
05522	0 71 23463		LDX	#25252525
05523	* 66 20001		RCY	1,4
05524	0 35 23441		STA	TEMPA
05525	0 36 23442		STB	TEMPB
05526	0 37 23440		STX	TEMPX
05527	0 50 23502		SKE	#00516273
05530	0 40 20200		SKS	20200
05531	0 01 05533		BRU	**2
05532	0 00 00000		HLT	0
05533	0 76 23442		LDA	TEMPB
05534	0 50 23503		SKE	#77261504
05535	0 40 20200		SKS	20200
05536	0 01 05540		BRU	**2
05537	0 00 00000		HLT	0
05540	0 76 23440		LDA	TEMPX
05541	0 50 23463		SKE	#25252525
05542	0 40 20200		SKS	20200
05543	0 01 05545		BRU	**2
05544	0 00 00000		HLT	0
05545	0 40 20400		SKS	20400
05546	0 01 05520		BRU	RCY4

A WRONG

B WRONG

X WRONG

CPU0	TAP=3.0	01/15	03101	PAGE 39
05547	0 76 23446	LCY1	LDA	#11111111
05550	0 75 23446		LDB	#11111111
05551	0 71 23460		LDX	#=1
05552	* 67 20002		LCY	2,4
05553	0 35 23441		STA	TEMPA
05554	0 36 23442		STB	TEMPB
05555	0 37 23440		STX	TEMPX
05556	0 50 23451		SKE	#44444444
05557	0 40 20200		SKS	20200
05560	0 01 05562		BRU	**2
05561	0 00 00000		HLT	0
05562	0 76 23442		LDA	TEMPB
05563	0 50 23451		SKE	#44444444
05564	0 40 20200		SKS	20200
05565	0 01 05567		BRU	**2
05566	0 00 00000		HLT	0
05567	0 76 23440		LDA	TEMPX
05570	0 50 23460		SKE	#=1
05571	0 40 20200		SKS	20200
05572	0 01 05574		BRU	**2
05573	0 00 00000		HLT	0
05574	0 40 20400		SKS	20400
05575	0 01 05547		BRU	LCY1

A WRONG

B WRONG

X WRONG

CPU0	TAP=3.0	01/15	03101	PAGE 40
05576	0 76 23450	LCY2	LDA	#22222222
05577	0 75 23450		LDB	#22222222
05600	0 71 23460		LDX	#=1
05601	* 67 20002		LCY	2,4
05602	0 35 23441		STA	TEMPA
05603	0 36 23442		STB	TEMPB
05604	0 37 23440		STX	TEMPX
05605	0 50 23446		SKE	#11111111
05606	0 40 20200		SKS	20200
05607	0 01 05611		BRU	**2
05610	0 00 00000		HLT	0
05611	0 76 23442		LDA	TEMPB
05612	0 50 23446		SKE	#11111111
05613	0 40 20200		SKS	20200
05614	0 01 05616		BRU	**2
05615	0 00 00000		HLT	0
05616	0 76 23440		LDA	TEMPX
05617	0 50 23460		SKE	#=1
05620	0 40 20200		SKS	20200
05621	0 01 05623		BRU	**2
05622	0 00 00000		HLT	0
05623	0 40 20400		SKS	20400
05624	0 01 05576		BRU	LCY2

A WRONG

B WRONG

X WRONG

CPUO	TAP=3.0	01/15	03101	PAGE 41
05625	0 76 23451	LCY3	LDA	*****
05626	0 75 23451		LDB	*****
05627	0 71 23447		LDX	#0
05630	4 67 20002		LCY	2,4
05631	0 35 23441		STA	TEMPA
05632	0 36 23442		STB	TEMPB
05633	0 37 23440		STX	TEMPX
05634	0 50 23450		SKE	#22222222
05635	0 40 20200		SKS	20200
05636	0 01 05640		BRU	**2
05637	0 00 00000		HLT	0
				A WRONG
05640	0 76 23442		LDA	TEMPB
05641	0 50 23450		SKE	#22222222
05642	0 40 20200		SKS	20200
05643	0 01 05645		BRU	**2
05644	0 00 00000		HLT	0
				B WRONG
05645	0 76 23440		LDA	TEMPX
05646	0 50 23447		SKE	#0
05647	0 40 20200		SKS	20200
05650	0 01 05652		BRU	**2
05651	0 00 00000		HLT	0
				X WRONG
05652	0 40 20400		SKS	20400
05653	0 01 05625		BRU	LCY3

CPUO	TAP=3.0	01/15	03101	PAGE 42
05654	0 76 23461	LCY4	LDA	#01234567
05655	0 75 23464		LDB	#76543210
05656	0 71 23463		LDX	#25252525
05657	4 67 20002		LCY	2,4
05660	0 35 23441		STA	TEMPA
05661	0 36 23442		STB	TEMPB
05662	0 37 23440		STX	TEMPX
05663	0 50 23504		SKE	#05162737
05664	0 40 20200		SKS	20200
05665	0 01 05667		BRU	**2
05666	0 00 00000		HLT	0
				A WRONG
05667	0 76 23442		LDA	TEMPB
05670	0 50 23505		SKE	#72615040
05671	0 40 20200		SKS	20200
05672	0 01 05674		BRU	**2
05673	0 00 00000		HLT	0
				B WRONG
05674	0 76 23440		LDA	TEMPX
05675	0 50 23463		SKE	#25252525
05676	0 40 20200		SKS	20200
05677	0 01 05701		BRU	**2
05700	0 00 00000		HLT	0
				X WRONG
05701	0 40 20400		SKS	20400
05702	0 01 05654		BRU	LCY4

CPU0	TAP=3.C	01/15	03101	PAGE 43	
05703	0 76 23463	BRM1	LDA	#25252525	
05704	0 75 23462		LDB	#52525252	
05705	0 71 23457		LDX	#00777700	
05706	* 43 05710		BRM	BRM2,*4	
05707	0 00 00000		HLT	0	
05710	0 00 00000	BRM2	PZE		
05711	0 35 23444		STA	TEMPD	
05712	0 76 05710		LDA	BRM2	
05713	0 14 23506		ETR	#37777	
05714	0 50 23507		SKE	#BRM1*3	
05715	0 40 20200		SKS	20200	
05716	0 01 05720		BRU	**2	
05717	0 00 00000		HLT	0	
05720	0 76 23444		LDA	TEMPD	
05721	0 35 23441		STA	TEMPA	
05722	0 36 23442		STB	TEMPB	
05723	0 37 23440		STX	TEMPX	
05724	0 50 23463		SKE	#25252525	
05725	0 40 20200		SKS	20200	
05726	0 01 05730		BRU	**2	
05727	0 00 00000		HLT	0	A WRONG
05730	0 76 23442		LDA	TEMPB	
05731	0 50 23462		SKE	#52525252	
05732	0 40 20200		SKS	20200	
05733	0 01 05735		BRU	**2	
05734	0 00 00000		HLT	0	B WRONG
05735	0 76 23440		LDA	TEMPX	
05736	0 50 23457		SKE	#00777700	
05737	0 40 20200		SKS	20200	
05740	0 01 05742		BRU	**2	
05741	0 00 00000		HLT	0	X WRONG
05742	0 40 20400		SKS	20400	
05743	0 01 05703		BRU	BRM1	

CPU0	TAP=3.C	01/15	03101	PAGE 44	
05744	0 76 23455	BRR1	LDA	#07070707	
05745	0 75 23457		LDB	#777700	
05746	0 71 23456		LDX	#770077	
05747	* 51 05751		BRR	BRR2,*4	
05750	0 00 00000		HLT	0	
05751	0 32 05752	BRR2	WIM	BRR2*1	
05752	0 00 00000		PZE		
05753	0 35 23444		STA	TEMPD	
05754	0 76 05751		LDA	BRR2	
05755	0 50 23510		SKE	#3285*BRR2*1	
05756	0 40 20200		SKS	20200	
05757	0 01 05761		BRU	**2	
05760	0 00 00000		HLT	0	
05761	0 76 23444		LDA	TEMPD	
05762	0 35 23441		STA	TEMPA	
05763	0 36 23442		STB	TEMPB	
05764	0 37 23440		STX	TEMPX	
05765	0 50 23455		SKE	#7070707	
05766	0 40 20200		SKS	20200	
05767	0 01 05771		BRU	**2	
05770	0 00 00000		HLT	0	A WRONG
05771	0 76 23442		LDA	TEMPB	
05772	0 50 23457		SKE	#777700	
05773	0 40 20200		SKS	20200	
05774	0 01 05776		BRU	**2	
05775	0 00 00000		HLT	0	B WRONG
05776	0 76 23440		LDA	TEMPX	
05777	0 50 23456		SKE	#770077	
06000	0 40 20200		SKS	20200	
06001	0 01 06003		BRU	**2	
06002	0 00 00000		HLT	0	X WRONG
06003	0 40 20400		SKS	20400	
06004	0 01 05744		BRU	BRR1	

CPU0	TAP=3,C	01/15	03101	PAGE 45	
06005	0 40 20100	MIW1	SKS	20100	
06006	0 01 04013		BRU	SK#1	
06007	0 76 23455		LDA	#07070707	
06010	0 75 23456		LDB	#770077	
06011	0 71 23463		LDX	#25252525	
06012	0 40 21000		SKS	21000	
06013	0 01 06012		BRU	**1	
06014	0 02 03441		EQM	3441	
06015	0 12 20662		MIW	MSG	
06016	0 12 20663		MIW	MSG#1	
06017	0 02 14000		EQM	14000	
06020	0 40 21000		SKS	21000	
06021	0 01 06020		BRU	**1	
06022	0 35 23441		STA	TEMPA	
06023	0 36 23442		STB	TEMPB	
06024	0 37 23440		STX	TEMPX	
06025	0 50 23455		SKE	#07070707	
06026	0 40 20200		SKS	20200	
06027	0 01 06031		BRU	**2	
06030	0 00 00000		HLT	0	A WRONG
06031	0 76 23442		LDA	TEMPB	
06032	0 50 23456		SKE	#770077	
06033	0 40 20200		SKS	20200	
06034	0 01 06036		BRU	**2	
06035	0 00 00000		HLT	0	B WRONG
06036	0 76 23440		LDA	TEMPX	
06037	0 50 23463		SKE	#25252525	
06040	0 40 20200		SKS	20200	
06041	0 01 06043		BRU	**2	
06042	0 00 00000		HLT	0	X WRONG
06043	0 40 20400		SKS	20400	
06044	0 01 06005		BRU	MIW1	

CPU0	TAP=3,C	01/15	03101	PAGE 46	
06045	0 02 22000	CKWPB	EQM	22000	TO 940 MODE
06046	0 76 00401		LDA	STATUS	
06047	0 72 23511		SKA	#40000	
06050	0 43 00454		BRM	REPRT	
06051	0 20 20611		NOP	DSCWP	DISC IS WRITE PROTECTED
06052	0 72 23511		SKA	#40000	
06053	0 01 06055		BRU	**2	
06054	0 43 00454		BRM	REPRT	
06055	0 20 20622		NOP	DSCNWP	DISC NOT W.P.
06056	0 72 23512		SKA	#4000	
06057	0 43 00454		BRM	REPRT	
06060	0 20 20636		NOP	RADWP	RAD IS W.P.
06061	0 72 23512		SKA	#4000	
06062	0 01 06064		BRU	**2	
06063	0 43 00454		BRM	REPRT	
06064	0 20 20647		NOP	RADNWP	RAD IS NOT W.P.
06065	0 02 22000	SET940	EQM	22000	TO 940 MODE
06066	0 40 20001		SKS	20001	RESET OVERFLOW
06067	0 20 00000		NOP	0	
06070	0 51 06071		BRR	**1	SET OV IF 940
06071	1 20 06071		NOP	**1	
06072	0 76 00401		LDA	STATUS	
06073	0 14 23513		ETR	#77777773	940 BIT
06074	0 40 20001		SKS	20001	SKIP IF OVERFLOW OFF
06075	0 16 23454		MRG	#4	
06076	0 35 00401		STA	STATUS	
06077	0 43 00420	UNIT0	BRM	UNIT	
06100	0 20 20000		NOP	UPT	
06101	0 76 00401		LDA	STATUS	
06102	0 72 23454		SKA	#4	SKIP IF NOT 940
06103	0 01 06105		BRU	**2	
06104	0 43 00452		BRM	DBNE	
06105	0 43 00424	FUNCO	BRM	FUNCTN	
06106	0 20 20006		NOP	FPTO	

```

CPU0    TAP=3.C    01/15  03101  PAGE 47

06107  0 43 0C430  01  REM    23D22=P31
06110  0 75 23460  BRM    OBJECT    START OBJECT TEST
06111  0 76 23447  LDB    #77777777
06112  0 46 0C000  LDA    #0
06113  0 50 23460  RNC
06114  0 C1 06116  SKE    #77777777
06115  0 43 0C460  BRU    #+2      OK, SKIP
06116  0 20 2C664  BRM    ERROR    NO,ERROR
06117  0 43 0C434  NSP    M1
          BRM    END
          REM    23D23=P31
          BRM    OBJECT    START OBJECT TEST
          LDA    #77777777
          LDX    #0
          RNC
          SKE    #0
          BRU    #+2      OK, SKIP
          BRM    ERROR    NO,ERROR
          NSP    M2
          BRM    END      LOOP IF BPI SET

```

```

CPU0    TAP=3.C    01/15  03101  PAGE 48

06131  0 43 0C430  03  REM    23D26=P36
06132  0 75 23460  BRM    OBJECT    START OBJECT TEST
06133  0 46 0C000  LDB    #77777777
06134  0 36 23437  RNC
06135  0 76 23437  STB    TEMP
06136  0 50 23447  LDA    TEMP
06137  0 C1 06141  SKE    #0
06140  0 43 0C460  BRU    #+2      OK, SKIP
06141  0 20 2C672  BRM    ERROR    NO,ERROR
06142  0 43 0C434  NSP    M3
          BRM    END      LOOP IF BPI SET
          REM    30D19=P36
          BRM    OBJECT    START OBJECT TEST
          LDA    #77777777
          RNC
          STB    TEMP
          LDA    TEMP
          SKA    #7
          BRU    #+2      OK, SKIP
          BRM    ERROR    NO,ERROR
          NSP    M4
          BRM    END      LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 49

06155  0 43 00430  55  REM      31C24=P36
06156  0 76 23460  BRM      OBJECT      START OBJECT TEST
06157  0 75 23447  LDA      #77777777
06160  0 46 00004  LDB      #0
06161  0 36 23437  CAB      TEMP
06162  0 76 23437  STB      TEMP
06163  0 50 23447  SKE      #0
06164  0 01 06166  BRU      **2      OK, SKIP
06165  0 43 00460  BRM      ERROR      NO,ERROR
06166  0 20 20700  NOP      M5
06167  0 43 00434  BRM      END      LOOP IF BP1 SET
REM      31C23=P36
06170  0 43 00430  56  BRM      OBJECT      START OBJECT TEST
06171  0 71 23460  LDX      #77777777
06172  0 75 23447  LDB      #0
06173  0 46 00040  CXB      TEMP
06174  0 36 23437  STB      TEMP
06175  0 76 23437  LDA      #0
06176  0 50 23447  SKE      #0
06177  0 01 06201  BRU      **2      OK, SKIP
06200  0 43 00460  BRM      ERROR      NO,ERROR
06201  0 20 20703  NOP      M6
06202  0 43 00434  BRM      END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 50

06203  0 43 00430  57  REM      23D14=P31
06204  0 75 23460  BRM      OBJECT      START OBJECT TEST
06205  0 76 23447  LDA      #77777777
06206  0 46 00010  CBA      #0
06207  0 50 23447  SKE      #0
06210  0 01 06212  BRU      **2      OK, SKIP
06211  0 43 00460  BRM      ERROR      NO,ERROR
06212  0 20 20706  NOP      M7
06213  0 43 00434  BRM      END      LOOP IF BP1 SET
REM      23D20,24D42=P31
06214  0 43 00430  58  BRM      OBJECT      START OBJECT TEST
06215  0 71 23460  LDX      #77777777
06216  0 76 23446  LDA      #11111111
06217  0 46 00200  CXA      #0
06220  0 50 23447  SKE      #0
06221  0 01 06223  BRU      **2      OK, SKIP
06222  0 43 00460  BRM      ERROR      NO,ERROR
06223  0 20 20711  NOP      M8
06224  0 43 00434  BRM      END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 51

06225  0 43 0C430  09  REM 25B28=P31
06226  0 76 23514  BRM OBJECT START OBJECT TEST
06227  0 71 23447  LDA #66666666
06230  0 46 0C200  LDX #0
06231  0 50 23460  CXA
06232  0 01 06234  SKE #77777777
06233  0 43 0C460  BRU #+2 OK, SKIP
06234  0 20 20716  BRM ERROR NO,ERROR
06235  0 43 00434  NOP #9
                                END LOOP IF BP1 SET
06236  0 43 00430  010 REM 25B35=P31
06237  0 71 23460  BRM OBJECT START OBJECT TEST
06240  0 76 23446  LDX #77777777
06241  0 46 0C200  LDA #11111111
06242  0 50 23514  CXA
06243  0 01 06243  SKE #66666666
06244  0 43 0C460  BRU #+2 OK, SKIP
06245  0 20 20721  BRM ERROR NO,ERROR
06246  0 43 00434  NOP #10
                                END LOOP IF BP1 SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 52

06247  0 43 0C430  011 REM 21C11=P31
06250  0 71 23515  BRM OBJECT START OBJECT TEST
06251  0 76 23516  LDX #50505050
06252  0 46 00200  LDA #20202020
06253  0 50 23460  CXA
06254  0 01 06256  SKE #77777777
06255  0 43 0C460  BRU #+2 OK, SKIP
06256  0 20 20724  BRM ERROR NO,ERROR
06257  0 43 00434  NOP #11
                                END LOOP IF BP1 SET
06260  0 43 0C430  012 REM 21C8=P31
06261  0 71 23460  BRM OBJECT START OBJECT TEST
06262  0 76 23516  LDX #77777777
06263  0 46 00200  LDA #20202020
06264  0 50 23515  CXA
06265  0 01 06267  SKE #50505050
06266  0 43 0C460  BRU #+2 OK, SKIP
06267  0 20 20727  BRM ERROR NO,ERROR
06270  0 43 00434  NOP #12
                                END LOOP IF BP1 SET

```

CPU0	TAP=3.0	01/15	03101	PAGE 53	
				REM	21812=P31
06271	0 43 00430	013		BRM	OBJECT
06272	0 71 23517			LDX	#33333333
06273	0 76 23451			LDA	#44444444
06274	0 46 00200			CXA	
06275	0 50 23460			SKE	#77777777
06276	0 01 06300			BRU	##2
06277	0 43 00460			BRM	ERROR
06300	0 20 20732			NOP	M13
06301	0 43 00434			BRM	END
				REM	21808=P31
06302	0 43 00430	014		BRM	OBJECT
06303	0 71 23514			LDX	#66666666
06304	0 76 23446			LDA	#11111111
06305	0 46 00200			CXA	
06306	0 50 23450			SKE	#22222222
06307	0 01 06311			BRU	##2
06310	0 43 00460			BRM	ERROR
06311	0 20 20735			NOP	M14
06312	0 43 00434			BRM	END
					START OBJECT TEST
					OK, SKIP
					NO,ERROR
					LOOP IF BP1 SET
					START OBJECT TEST
					OK, SKIP
					NO,ERROR
					LOOP IF BP1 SET

CPU0	TAP=3.0	01/15	03101	PAGE 54	
				REM	21831=P36
06313	0 43 00430	015		BRM	OBJECT
06314	0 76 23446			LDA	#11111111
06315	0 75 23447			LDB	#0
06316	0 46 00004			CAB	
06317	0 36 23437			STB	TEMP
06320	0 76 23437			LDA	TEMP
06321	0 50 23520			SKE	#55555555
06322	0 01 06324			BRU	##2
06323	0 43 00460			BRM	ERROR
06324	0 20 20740			NOP	M15
06325	0 43 00434			BRM	END
				REM	21832=P36
06326	0 43 00430	016		BRM	OBJECT
06327	0 76 23520			LDA	#55555555
06330	0 75 23447			LDB	#0
06331	0 46 00004			CAB	
06332	0 36 23437			STB	TEMP
06333	0 76 23437			LDA	TEMP
06334	0 50 23446			SKE	#11111111
06335	0 01 06337			BRU	##2
06336	0 43 00460			BRM	ERROR
06337	0 20 20743			NOP	M16
06340	0 43 00434			BRM	END
					START OBJECT TEST
					OK, SKIP
					NO,ERROR
					LOOP IF BP1 SET
					START OBJECT TEST
					OK, SKIP
					NO,ERROR
					LOOP IF BP1 SET

```

CPU0  TAP=3.C  01/15  03101  PAGE 55

06341 0 43 00430  017  REM      21D12=P36
06342 0 71 23446  BRM      OBJECT      START OBJECT TEST
06343 0 75 23447  LDX      #11111111
06344 0 46 00740  LDB      #0
06345 0 36 23437  STB      TEMP
06346 0 76 23437  LDA      TEMP
06347 0 50 23520  SKE      #55555555
06350 0 01 06352  BRU      **2      OK, SKIP
06351 0 43 00460  BRM      ERROR      NO,ERROR
06352 0 20 20746  NOP      M17
06353 0 43 00434  BRM      END      LOOP IF BP1 SET

06354 0 43 00430  018  REM      21D8=P36
06355 0 71 23520  BRM      OBJECT      START OBJECT TEST
06356 0 75 23447  LDX      #55555555
06357 0 46 00740  LDB      #0
06360 0 36 23437  STB      TEMP
06361 0 76 23437  LDA      TEMP
06362 0 50 23446  SKE      #11111111
06363 0 01 06365  BRU      **2      OK, SKIP
06364 0 43 00460  BRM      ERROR      NO,ERROR
06365 0 20 20751  NOP      M18
06366 0 43 00434  BRM      END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 56

06367 0 43 00430  019  REM      21C3=P36
06370 0 76 23520  BRM      OBJECT      START OBJECT TEST
06371 0 75 23447  LDA      #55555555
06372 0 46 00004  LDB      #0
06373 0 36 23437  CAB      TEMP
06374 0 76 23437  STB      TEMP
06375 0 50 23460  LDA      #77777777
06376 0 01 06400  SKE      #77777777
06377 0 43 00460  BRU      **2      OK, SKIP
06400 0 20 20754  BRM      ERROR      NO,ERROR
06401 0 43 00434  NOP      M19
06402 0 43 00430  BRM      END      LOOP IF BP1 SET

06402 0 43 00430  020  REM      25C2=P36
06403 0 76 23460  BRM      OBJECT      START OBJECT TEST
06404 0 75 23447  LDA      #77777777
06405 0 46 00004  LDB      #0
06406 0 36 23437  CAB      TEMP
06407 0 76 23437  STB      TEMP
06410 0 50 23520  LDA      #55555555
06411 0 01 06413  SKE      #55555555
06412 0 43 00460  BRU      **2      OK, SKIP
06413 0 20 20757  BRM      ERROR      NO,ERROR
06414 0 43 00434  NOP      M20
06414 0 43 00434  BRM      END      LOOP IF BP1 SET

```

CPUO	TAP=3.0	01/15	03101	PAGE 57		
06415	0 43 00430	021	REM	25C38=P36		
06416	0 71 23520		BRM	OBJECT	START OBJECT TEST	
06417	0 75 23447		LDX	#55555555		
06420	0 46 00040		LDB	#0		
06421	0 36 23437		CXB			
06422	0 76 23437		STB	TEMP		
06423	0 50 23460		LDA	TEMP		
06424	0 50 23460		SKE	#77777777		
06424	0 01 06426		BRU	**2		
06425	0 43 00460		BRM	ERROR	NO,ERROR	
06426	0 2C 20762		NBP	M21		
06427	0 43 00434		BRM	END	LOOP IF BP1 SET	
06430	0 43 00430		022	REM	25C36=P36	
06431	0 71 23460			BRM	OBJECT	START OBJECT TEST
06432	0 75 23447	LDX		#77777777		
06433	0 46 00040	LDB		#0		
06434	0 36 23437	CXB				
06434	0 76 23437	STB		TEMP		
06435	0 76 23437	LDA		TEMP		
06436	0 50 23520	SKE		#55555555		
06437	0 01 06441	BRU		**2	OK, SKIP	
06440	0 43 00460	BRM		ERROR	NO,ERROR	
06441	0 20 20765	NBP		M22		
06442	0 43 00434	BRM		END	LOOP IF BP1 SET	

CPUO	TAP=3.0	01/15	03101	PAGE 58		
06443	0 43 00430	023	REM	25C14=P36		
06444	0 76 23514		BRM	OBJECT	START OBJECT TEST	
06445	0 75 23447		LDA	#66666666		
06446	0 46 00004		LDB	#0		
06447	0 36 23437		CAB			
06450	0 76 23437		STB	TEMP		
06451	0 76 23437		LDA	TEMP		
06452	0 50 23460		SKE	#77777777		
06452	0 01 06454		BRU	**2	OK, SKIP	
06453	0 43 00460		BRM	ERROR	NO,ERROR	
06454	0 20 20770		NBP	M23		
06455	0 43 00434		BRM	END	LOOP IF BP1 SET	
06456	0 43 00430		023A	REM	25C18=P36	
06457	0 76 23460			BRM	OBJECT	
06460	0 75 23447	LDA		#77777777		
06461	0 46 00004	LDB		#0		
06462	0 36 23437	CAB				
06462	0 76 23437	STB		TEMP		
06463	0 76 23437	LDA		TEMP		
06464	0 50 23514	SKE		#66666666		
06465	0 01 06467	BRU		**2		
06466	0 43 00460	BRM		ERROR		
06467	0 20 20773	NBP		M23A		
06470	0 43 00434	BRM		END		

```

CPU0  TAP=3.0  01/15  03101  PAGE 59

06471  0 43 00430  024  REM 25C28=P36
06472  0 71 23514  BRM OBJECT START OBJECT TEST
06473  0 75 23447  LDX #66666666
06474  0 46 00040  LDB #0
06475  0 36 23437  CXB
06476  0 76 23437  STB TEMP
06477  0 50 23460  LDA TEMP
06500  0 01 06402  SKE #77777777
06501  0 43 00460  BRU #+2 OK, SKIP
06502  0 20 20776  BRM ERROR NO,ERROR
06503  0 43 00434  NOP M24
06504  0 43 00434  BRM END LOOP IF BP1 SET
06505  0 76 23460  REM 31C22=P36
06506  0 75 23447  BRM OBJECT START OBJECT TEST
06507  0 46 00004  LDA #77777777
06510  0 50 23447  LDB #0
06511  0 01 06513  BRU #+2 OK, SKIP
06512  0 43 00460  BRM ERROR NO,ERROR
06513  0 20 21001  NOP M25
06514  0 43 00434  BRM END LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 60

06515  0 43 00430  026  REM 29D30=P36
06516  0 76 23446  BRM OBJECT START OBJECT TEST
06517  0 75 23514  LDA #11111111
06520  0 46 00004  LDB #66666666
06521  0 36 23437  CAB
06522  0 76 23437  STB TEMP
06523  0 50 23460  LDA TEMP
06524  0 01 06426  SKE #77777777
06525  0 43 00460  BRU #+2 OK, SKIP
06526  0 20 21004  BRM ERROR NO,ERROR
06527  0 43 00434  NOP M26
06530  0 43 00430  027  REM 21D39=P36
06531  0 75 23450  BRM OBJECT START OBJECT TEST
06532  0 71 23520  LDB #22222222
06533  0 46 00040  LDX #55555555
06534  0 36 23437  CXB
06535  0 76 23437  STB TEMP
06536  0 50 23447  LDA TEMP
06537  0 01 06541  SKE #0
06540  0 43 00460  BRU #+2 OK, SKIP
06541  0 20 21007  BRM ERROR NO,ERROR
06542  0 43 00434  BRM END LOOP IF BP1 SET

```



```

CPU0  TAP=3.C  01/15  03101  PAGE 61

06543  0 43 00430  028  REM 29032=P36
06544  0 75 23450  BRM OBJECT START OBJECT TEST
06545  0 71 23446  LDB #22222222
06546  0 46 00040  LDX #11111111
06547  0 36 23437  CXB
06550  0 76 23437  STB TEMP
06551  0 50 23517  LDA TEMP
06552  0 01 06554  SKE #33333333
06553  0 43 00460  BRU ++2 OK, SKIP
06554  0 20 21012  BRM ERROR NO,ERROR
06555  0 43 00434  NOP #28
BRM END LOOP IF BPI SET

06556  0 43 00430  029  REM 2409=P36
06557  0 76 23460  BRM OBJECT START OBJECT TEST
06560  0 75 23450  LDA #77777777
06561  0 46 00004  LDB #22222222
06562  0 36 23437  CAB
06563  0 76 23437  STB TEMP
06564  0 50 23447  LDA TEMP
06565  0 01 06567  SKE #0
06566  0 43 00460  BRU ++2 OK, SKIP
06567  0 20 21015  BRM ERROR NO,ERROR
06570  0 43 00434  NOP #29
BRM END LOOP IF BPI SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 62

06571  0 43 00430  030  REM 24834=P46
06572  0 76 23452  BRM OBJECT START OBJECT TEST
06573  0 35 23437  LDA #00000001
06574  0 75 23462  STA TEMP
06575  0 60 23437  LDB #52525252
06576  0 76 23437  SKR TEMP
06577  0 50 23462  LDA TEMP
06600  0 01 06602  SKE #52525252
06601  0 43 00460  BRU ++2 OK, SKIP
06602  0 20 21020  BRM ERROR NO,ERROR
06603  0 43 00434  NOP #30
BRM END LOOP IF BPI SET

06604  0 43 00430  031  REM 24838=P46
06605  0 76 23450  BRM OBJECT START OBJECT TEST
06606  0 35 23437  LDA #22222222
06607  0 75 23520  STA TEMP
06610  0 60 23437  LDB #55555555
06611  0 76 23437  SKR TEMP
06612  0 50 23460  LDA TEMP
06613  0 01 06615  SKE #77777777
06614  0 43 00460  BRU ++2 OK, SKIP
06615  0 20 21023  BRM ERROR NO,ERROR
06616  0 43 00434  NOP #31
BRM END LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 63

06617  0 43 00430  #32  REM 30010=P36
06620  0 75 23450  BRM OBJECT START OBJECT TEST
06621  0 60 23437  LDB #22222222
06622  0 36 23437  SKR TEMP
06623  0 76 23437  STB TEMP
06624  0 50 23447  LDA TEMP
06625  0 01 06627  SKE #0
06626  0 43 00460  BRU **2 OK, SKIP
06627  0 20 21026  BRM ERROR NO,ERROR
06630  0 43 00434  NBP M32
BRM END LOOP IF BP1 SET

06631  0 43 00430  #33  REM 39027=P31
06632  0 76 23460  BRM OBJECT START OBJECT TEST
06633  0 35 23437  LDA #77777777
06634  0 76 23446  STA TEMP
06635  0 62 23437  LDA #11111111
06636  0 50 23447  XMA TEMP
06637  0 01 06641  SKE #0
06640  0 43 00460  BRU **2 OK, SKIP
06641  0 20 21031  BRM ERROR NO,ERROR
06642  0 43 00434  NBP M33
BRM END LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 64

06643  0 43 00430  #34  REM 2905=P46
06644  0 76 23517  BRM OBJECT START OBJECT TEST
06645  0 35 23437  LDA #33333333
06646  0 76 23446  STA TEMP
06647  0 62 23437  LDA #11111111
06650  0 76 23437  XMA TEMP
06651  0 50 23451  LDA TEMP
06652  0 01 06654  SKE #44444444
06653  0 43 00460  BRU **2 OK, SKIP
06654  0 20 21034  BRM ERROR NO,ERROR
06655  0 43 00434  NBP M34
BRM END LOOP IF BP1 SET

```

```

CPUO  TAP=3.0  01/15  03101  PAGE 65

06656  0 43 00430  035  REM  ADDR
06657  0 76 23521  BRM  OBJECT  START OBJECT TEST
06660  0 55 23522  LDA  #01010101
06661  0 50 23523  ADD  #07172737
06662  0 43 00460  SKE  #10203040
06663  0 20 22320  BRM  ERROR  NO,ERROR
06664  0 43 00434  NOP  MADDR  LOOP IF BPI SET
06665  0 43 00430  BRM  END
06666  0 76 23521  REM  ADDR  START OBJECT TEST
06667  0 55 23522  BRM  OBJECT
06670  0 50 23523  LDA  #01010101
06671  0 43 00460  ADD  #47576777
06672  0 20 22320  SKE  #50607100  NO,ERROR
06673  0 43 00434  BRM  ERROR  LOOP IF BPI SET
06674  0 43 00430  NOP  MADDR
06675  0 76 23446  BRM  END  START OBJECT TEST
06676  0 55 23522  REM  ADDR
06677  0 50 23523  BRM  OBJECT
06700  0 43 00460  LDA  #11111111
06701  0 20 22320  ADD  #07172737
06702  0 43 00434  SKE  #20304050  NO,ERROR
06703  0 43 00430  BRM  ERROR  LOOP IF BPI SET
06704  0 76 23446  NOP  MADDR
06705  0 55 23522  BRM  END
06706  0 50 23523  SKE  #60710110
06707  0 43 00460  BRM  ERROR
06710  0 20 22320  NOP  MADDR
06711  0 43 00434  BRM  END
06712  0 43 00430  REM  ADDR  START OBJECT TEST
06713  0 76 23530  BRM  OBJECT
06714  0 55 23522  LDA  #21212121
06715  0 50 23531  ADD  #07172737
06716  0 43 00460  SKE  #30405060  NO,ERROR
06717  0 20 22320  BRM  ERROR  LOOP IF BPI SET
06720  0 43 00434  NOP  MADDR
06721  0 43 00430  BRM  END  START OBJECT TEST
06722  0 76 23530  REM  ADDR
06723  0 55 23522  BRM  OBJECT
06724  0 50 23532  LDA  #21212121
06725  0 43 00460  ADD  #47576777
06726  0 20 22320  SKE  #71011120  NO,ERROR
06727  0 43 00434  BRM  ERROR  LOOP IF BPI SET
06728  0 43 00434  NOP  MADDR
06729  0 43 00434  BRM  END

```

```

CPUO  TAP=3.0  01/15  03101  PAGE 66

06703  0 43 00430  038  REM  ADDR  START OBJECT TEST
06704  0 76 23446  BRM  OBJECT
06705  0 55 23524  LDA  #11111111
06706  0 50 23527  ADD  #47576777
06707  0 43 00460  SKE  #60710110  NO,ERROR
06710  0 20 22320  BRM  ERROR  LOOP IF BPI SET
06711  0 43 00434  NOP  MADDR
06712  0 43 00430  BRM  END
06713  0 76 23530  REM  ADDR  START OBJECT TEST
06714  0 55 23522  BRM  OBJECT
06715  0 50 23531  LDA  #21212121
06716  0 43 00460  ADD  #07172737
06717  0 20 22320  SKE  #30405060  NO,ERROR
06720  0 43 00434  BRM  ERROR  LOOP IF BPI SET
06721  0 43 00430  NOP  MADDR
06722  0 76 23530  BRM  END  START OBJECT TEST
06723  0 55 23524  REM  ADDR
06724  0 50 23532  BRM  OBJECT
06725  0 43 00460  LDA  #21212121
06726  0 20 22320  ADD  #47576777
06727  0 43 00434  SKE  #71011120  NO,ERROR
06728  0 43 00434  BRM  ERROR  LOOP IF BPI SET
06729  0 43 00434  NOP  MADDR
06730  0 43 00434  BRM  END

```

```

CPUO  TAP=3.0  01/15  03101  PAGE 67

06730  0 43 00430  041  REM  ADDR
06731  0 76 23533  BRM  OBJECT  START OBJECT TEST
06732  0 55 23522  LDA  #31313131
06733  0 50 23534  ADD  #07172737
06734  0 43 00460  SKE  #40506070
06735  0 20 22320  BRM  ERROR  NO,ERROR
06736  0 43 00434  NOP  MADDR
06737  0 43 00430  BRM  END  LOOP IF BP1 SET
06738  0 43 00434  REM  ADDR
06739  0 43 00430  BRM  OBJECT  START OBJECT TEST
06740  0 76 23533  LDA  #31313131
06741  0 55 23524  ADD  #47576777
06742  0 50 23535  SKE  #01112130
06743  0 43 00460  BRM  ERROR  NO,ERROR
06744  0 20 22320  NOP  MADDR
06745  0 43 00434  BRM  END  LOOP IF BP1 SET
06746  0 43 00430  REM  ADDR
06747  0 43 00430  BRM  OBJECT  START OBJECT TEST
06748  0 76 23536  LDA  #41414141
06749  0 55 23522  ADD  #07172737
06750  0 50 23525  SKE  #50607100
06751  0 43 00460  BRM  ERROR  NO,ERROR
06752  0 20 22320  NOP  MADDR
06753  0 43 00434  BRM  END  LOOP IF BP1 SET
06754  0 43 00434  BRM  END

```

```

CPUO  TAP=3.0  01/15  03101  PAGE 68

06755  0 43 00430  044  REM  ADDR
06756  0 76 23536  BRM  OBJECT  START OBJECT TEST
06757  0 55 23524  LDA  #41414141
06758  0 50 23537  ADD  #47576777
06759  0 43 00460  SKE  #11213140
06760  0 43 00460  BRM  ERROR  NO,ERROR
06761  0 20 22320  NOP  MADDR
06762  0 43 00434  BRM  END  LOOP IF BP1 SET
06763  0 43 00434  REM  ADDR
06764  0 43 00430  BRM  OBJECT  START OBJECT TEST
06765  0 76 23540  LDA  #51515151
06766  0 55 23522  ADD  #07172737
06767  0 50 23527  SKE  #60710110
06768  0 43 00460  BRM  ERROR  NO,ERROR
06769  0 20 22320  NOP  MADDR
06770  0 43 00434  BRM  END  LOOP IF BP1 SET
06771  0 43 00430  REM  ADDR
06772  0 43 00430  BRM  OBJECT  START OBJECT TEST
06773  0 76 23540  LDA  #51515151
06774  0 55 23524  ADD  #47576777
06775  0 50 23541  SKE  #21314150
06776  0 43 00460  BRM  ERROR  NO,ERROR
07000  0 20 22320  NOP  MADDR
07001  0 43 00434  BRM  END  LOOP IF BP1 SET

```


CPU0 TAP=3.0 01/15 03101 PAGE 71

07054	0	43	00430	953	REM	ADDR		
07055	0	76	23516		BRM	OBJECT		START OBJECT TEST
07056	0	55	23547		LDA	#20202020		
07057	0	50	23553		ADD	#00112233		
07060	0	43	00460		SKE	#20314253		
07061	0	20	22320		BRM	ERRR		NO,ERROR
07062	0	43	00434		NOP	MADDR		
					BRM	END		LOOP IF BP1 SET
					REM	ADDR		
07063	0	43	00430	954	BRM	OBJECT		START OBJECT TEST
07064	0	76	23516		LDA	#20202020		
07065	0	55	23551		ADD	#44556677		
07066	0	50	23554		SKE	#64760717		
07067	0	43	00460		BRM	ERRR		NO,ERROR
07070	0	20	22320		NOP	MADDR		
07071	0	43	00434		BRM	END		LOOP IF BP1 SET
					REM	ADDR		
07072	0	43	00430	955	BRM	OBJECT		START OBJECT TEST
07073	0	76	23555		LDA	#30303030		
07074	0	55	23547		ADD	#00112233		
07075	0	50	23556		SKE	#30415263		
07076	0	43	00460		BRM	ERRR		NO,ERROR
07077	0	20	22320		NOP	MADDR		
07100	0	43	00434		BRM	END		LOOP IF BP1 SET

CPU0 TAP=3.0 01/15 03101 PAGE 72

07101	0	43	00430	956	REM	ADDR		
07102	0	76	23555		BRM	OBJECT		START OBJECT TEST
07103	0	55	23551		LDA	#30303030		
07104	0	50	23557		ADD	#44556677		
07105	0	43	00460		SKE	#75061727		
07106	0	20	22320		BRM	ERRR		NO,ERROR
07107	0	43	00434		NOP	MADDR		
					BRM	END		LOOP IF BP1 SET
					REM	ADDR		
07110	0	43	00430	957	BRM	OBJECT		START OBJECT TEST
07111	0	76	23560		LDA	#40404040		
07112	0	55	23547		ADD	#00112233		
07113	0	50	23561		SKE	#40516273		
07114	0	43	00460		BRM	ERRR		NO,ERROR
07115	0	20	22320		NOP	MADDR		
07116	0	43	00434		BRM	END		LOOP IF BP1 SET
					REM	ADDR		
07117	0	43	00430	958	BRM	OBJECT		START OBJECT TEST
07120	0	76	23560		LDA	#40404040		
07121	0	55	23551		ADD	#44556677		
07122	0	50	23504		SKE	#05162737		
07123	0	43	00460		BRM	ERRR		NO,ERROR
07124	0	20	22320		NOP	MADDR		
07125	0	43	00434		BRM	END		LOOP IF BP1 SET

```

CPU0  TAP=3.0  01/15  03101  PAGE 73

07126  0 43 00430  059  REM      ADDR
07127  0 76 23515  BRM     OBJECT      START OBJECT TEST
07130  0 55 23547  LDA     #50505050
07131  0 50 23562  ADD     #00112233
07132  0 43 00460  SKE     #60417303
07133  0 20 22320  BRM     ERROR      NO,ERROR
07134  0 43 00434  NOP     MADDR
07134  0 43 00434  BRM     END        LOOP IF BP1 SET
07135  0 43 00430  060  REM      ADDR
07136  0 76 23515  BRM     OBJECT      START OBJECT TEST
07137  0 55 23551  LDA     #50505050
07140  0 50 23563  ADD     #44556677
07141  0 43 00460  SKE     #15263747
07142  0 20 22320  BRM     ERROR      NO,ERROR
07143  0 43 00434  NOP     MADDR
07143  0 43 00434  BRM     END        LOOP IF BP1 SET
07144  0 43 00430  061  REM      ADDR
07145  0 76 23564  BRM     OBJECT      START OBJECT TEST
07146  0 55 23547  LDA     #60606060
07147  0 50 23565  ADD     #00112233
07150  0 43 00460  SKE     #60720313
07151  0 20 22320  BRM     ERROR      NO,ERROR
07152  0 43 00434  NOP     MADDR
07152  0 43 00434  BRM     END        LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 74

07153  0 43 00430  062  REM      ADDR
07154  0 76 23564  BRM     OBJECT      START OBJECT TEST
07155  0 55 23551  LDA     #60606060
07156  0 50 23566  ADD     #44556677
07157  0 43 00460  SKE     #25364757
07160  0 20 22320  BRM     ERROR      NO,ERROR
07161  0 43 00434  NOP     MADDR
07161  0 43 00434  BRM     END        LOOP IF BP1 SET
07162  0 43 00430  063  REM      ADDR
07163  0 76 23467  BRM     OBJECT      START OBJECT TEST
07164  0 55 23547  LDA     #70707070
07165  0 50 23567  ADD     #00112233
07166  0 43 00460  SKE     #71021323
07167  0 20 22320  BRM     ERROR      NO,ERROR
07170  0 43 00434  NOP     MADDR
07170  0 43 00434  BRM     END        LOOP IF BP1 SET
07171  0 43 00430  064  REM      ADDR
07172  0 76 23467  BRM     OBJECT      START OBJECT TEST
07173  0 55 23551  LDA     #70707070
07174  0 50 23570  ADD     #44556677
07175  0 43 00460  SKE     #35465767
07176  0 20 22320  BRM     ERROR      NO,ERROR
07177  0 43 00434  NOP     MADDR
07177  0 43 00434  BRM     END        LOOP IF BP1 SET

```

```

CPUO   TAP=3.C   01/15  03101  PAGE 75

07200  0 43 00430  *65  REM      31842,24013=P31
07201  0 76 23467  BRM      OBJECT      START OBJECT TEST
07202  0 55 23521  LDA      #70707070
07203  0 50 23447  ADD      #01010101
07204  0 C1 07206  SKE      #0
07205  0 43 00460  BRU      **2          OK, SKIP
07206  0 20 21137  BRM      ERROR       NO,ERROR
07207  0 43 00434  NOP
07207  0 43 00434  BRM      END          LOOP IF BPI SET
07210  0 43 00430  *66  REM      2582=P31
07211  0 76 23514  BRM      OBJECT      START OBJECT TEST
07212  0 55 23446  LDA      #66666666
07213  0 50 23514  ADD      #11111111
07214  0 C1 07216  SKE      #66666666
07215  0 43 00460  BRU      **2          OK, SKIP
07216  0 20 21144  BRM      ERROR       NO,ERROR
07217  0 43 00434  NOP
07217  0 43 00434  BRM      END          LOOP IF BPI SET

```

```

CPUO   TAP=3.C   01/15  03101  PAGE 76

07220  0 43 00430  *67  REM      25820=P31
07221  0 76 23520  BRM      OBJECT      START OBJECT TEST
07222  0 55 23446  LDA      #55555555
07223  0 50 23460  ADD      #11111111
07224  0 C1 07226  SKE      #77777777
07225  0 43 00460  BRU      **2          OK, SKIP
07226  0 20 21047  BRM      ERROR       NO,ERROR
07227  0 43 00434  NOP
07227  0 43 00434  BRM      END          LOOP IF BPI SET
07230  0 43 00430  *68  REM      23016=P31
07231  0 71 23447  BRM      OBJECT      START OBJECT TEST
07232  0 76 23546  LDX      #0
07233  0 57 23555  LDA      #10101010
07234  0 50 23564  ADC      #30303030
07235  0 C1 07237  SKE      #60606060
07236  0 43 00460  BRU      **2          OK, SKIP
07237  0 20 21052  BRM      ERROR       NO,ERROR
07240  0 43 00434  NOP
07240  0 43 00434  BRM      END          LOOP IF BPI SET

```


CPUO	TAP=3.C	01/15	03101	PAGE 77	
07241	0 43 00430	069	REM	21829=P31	
07242	0 76 23460		BRM	OBJECT	START OBJECT TEST
07243	0 55 23452		LDA	#77777777	
07244	0 50 23451		ADD	#1	
07245	0 01 07247		SKE	#44444444	OK, SKIP
07246	0 43 00460		BRU	#*2	NO,ERROR
07247	0 20 21055		BRM	ERROR	
07250	0 43 00434		NOP	M39	LOOP IF BP1 SET
			BRM	END	
07251	0 43 00430	070	REM	21828=P31	
07252	0 76 23447		BRM	OBJECT	START OBJECT TEST
07253	0 55 23460		LDA	#00000000	
07254	0 50 23517		ADD	#1	
07255	0 01 07257		SKE	#33333333	OK, SKIP
07256	0 43 00460		BRU	#*2	NO,ERROR
07257	0 20 21060		BRM	ERROR	
07260	0 43 00434		NOP	M40	LOOP IF BP1 SET
			BRM	END	

CPUO	TAP=3.C	01/15	03101	PAGE 78	
07261	0 43 00430	071	REM	31842=P31	
07262	0 76 23517		BRM	OBJECT	START OBJECT TEST
07263	0 55 23451		LDA	#33333333	
07264	0 50 23447		ADD	#44444444	
07265	0 01 07267		SKE	#00000000	OK, SKIP
07266	0 43 00460		BRU	#*2	NO,ERROR
07267	0 20 21063		BRM	ERROR	
07270	0 43 00434		NOP	M41	LOOP IF BP1 SET
			BRM	END	
07271	0 43 00430	072	REM	39C27=P31	
07272	0 76 23517		BRM	OBJECT	START OBJECT TEST
07273	0 35 23437		LDA	#33333333	
07274	0 76 23451		STA	TEMP	
07275	0 43 23437		LDA	#44444444	
07276	0 50 23460		ADM	TEMP	
07277	0 01 07301		SKE	#77777777	OK, SKIP
07300	0 43 00460		BRU	#*2	NO,ERROR
07301	0 20 21066		BRM	ERROR	
07302	0 43 00434		NOP	M42	LOOP IF BP1 SET
			BRM	END	

CPU0	TAP=3.C	01/15	03101	PAGE 79	
07303	0 43 00430	073	REM	31B42=P31	
07304	0 76 23517		BRM	0BJECT	START OBJECT TEST
07305	0 55 23446		LDA	#33333333	
07306	0 50 23447		ADD	#11111111	
07307	0 01 07311		SKE	#00000000	
07310	0 43 00460		BRU	**2	OK, SKIP
07311	0 20 21071		BRM	ERROR	NO,ERROR
07312	0 43 00434		NOP	M43	
			BRM	END	LOOP IF BP1 SET
07313	0 43 00430	074	REM	23D16=P31	
07314	0 76 23517		BRM	0BJECT	START OBJECT TEST
07315	0 71 23447		LDA	#33333333	
07316	0 57 23446		LDX	#0	
07317	0 50 23514		ADC	#11111111	
07320	0 01 07322		SKE	#66666666	
07321	0 43 00460		BRU	**2	OK, SKIP
07322	0 20 21074		BRM	ERROR	NO,ERROR
07323	0 43 00434		NOP	M44	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.C	01/15	03101	PAGE 80	
07324	0 43 00430	075	REM	21C28=P31	
07325	0 76 23447		BRM	0BJECT	START OBJECT TEST
07326	0 55 23460		LDA	#00000000	
07327	0 50 23520		ADD	#=1	
07330	0 01 07332		SKE	#55555555	
07331	0 43 00460		BRU	**2	OK, SKIP
07332	0 20 21077		BRM	ERROR	NO,ERROR
07333	0 43 00434		NOP	M45	
			BRM	END	LOOP IF BP1 SET
07334	0 43 00430	076	REM	29C15=P46	
07335	0 76 23520		BRM	0BJECT	START OBJECT TEST
07336	0 35 23437		LDA	#55555555	
07337	0 76 23446		STA	TEMP	
07340	0 63 23437		LDA	#11111111	
07341	0 76 23437		ADM	TEMP	
07342	0 50 23447		LDA	TEMP	
07343	0 01 07345		SKE	#0	
07344	0 43 00460		BRU	**2	OK, SKIP
07345	0 20 21102		BRM	ERROR	NO,ERROR
07346	0 43 00434		NOP	M46	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.C	01/15	03101	PAGE 81	
07347	0 43 00430	877	REM	2409=P4	
07350	0 76 23452		BRM	OBJECT	START OBJECT TEST
07351	0 35 23437		LDA	#00000001	
07352	0 76 23571		STA	TEMP	
07353	0 54 23437		LDA	#37777776	
07354	0 50 23466		SUB	TEMP	
07355	0 01 07357		SKE	#40000000	
07356	0 43 00460		BRU	++2	OK, SKIP
07357	0 20 21105		BRM	ERROR	NO,ERROR
07360	0 43 00434		NOP	M47	
			BRM	END	LOOP IF BP1 SET
07361	0 43 00430	878	REM	24021=P49	
07362	0 76 23452		BRM	OBJECT	START OBJECT TEST
07363	0 35 23437		LDA	#00000001	
07364	0 76 23572		STA	TEMP	
07365	0 54 23437		LDA	#30000001	
07366	0 50 23573		SUB	TEMP	
07367	0 01 07371		SKE	#27777777	
07370	0 43 00460		BRU	++2	OK, SKIP
07371	0 20 21110		BRM	ERROR	NO,ERROR
07372	0 43 00434		NOP	M48	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.C	01/15	03101	PAGE 82	
07373	0 43 00430	879	REM	30B16=P31	
07374	0 76 23451		BRM	OBJECT	START OBJECT TEST
07375	0 54 23517		LDA	#44444444	
07376	0 50 23517		SUB	#33333333	
07377	0 01 07401		SKE	#33333333	
07400	0 43 00460		BRU	++2	OK, SKIP
07401	0 20 21113		BRM	ERROR	NO,ERROR
07402	0 43 00434		NOP	M49	
			BRM	END	LOOP IF BP1 SET
07403	0 43 00430	880	REM	25D12=P31	
07404	0 76 23450		BRM	OBJECT	START OBJECT TEST
07405	0 46 01000		LDA	#22222222	
07406	0 50 23447		CNA	#0	
07407	0 01 07411		SKE	#0	
07410	0 43 00460		BRU	++2	OK, SKIP
07411	0 20 21116		BRM	ERROR	NO,ERROR
07412	0 43 00434		NOP	M50	
			BRM	END	LOOP IF BP1 SET

```

CPU0  TAP=3.0  01/15  03101  PAGE 83
07413  0 43 00430  881  REM 22C43=P31
07414  0 76 23460  BRM OBJECT START OBJECT TEST
07415  0 46 01000  LDA #77777777
07416  0 50 23447  CNA
07417  0 01 07421  SKE #0
07420  0 43 00460  BRU **2 OK, SKIP
07421  0 20 21121  BRM ERROR NO,ERROR
07422  0 43 00434  NOP M51
BRM END LOOP IF BP1 SET
07423  0 43 00430  882  REM 25B30=P31
07424  0 76 23574  BRM OBJECT START OBJECT TEST
07425  0 46 01000  LDA #11111110
07426  0 50 23575  CNA
07427  0 01 07431  SKE #77777771
07430  0 43 00460  BRU **2 OK, SKIP
07431  0 20 21124  BRM ERROR NO,ERROR
07432  0 43 00434  NOP M52
BRM END LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 84
07433  0 43 00430  883  REM 25B32=P31
07434  0 76 23446  BRM OBJECT START OBJECT TEST
07435  0 46 01000  LDA #11111111
07436  0 50 23514  CNA
07437  0 01 07441  SKE #66666666
07440  0 43 00460  BRU **2 OK, SKIP
07441  0 20 21127  BRM ERROR NO,ERROR
07442  0 43 00434  NOP M53
BRM END LOOP IF BP1 SET
07443  0 43 00430  884  REM 21C21=P31
07444  0 76 23517  BRM OBJECT START OBJECT TEST
07445  0 46 01000  LDA #33333333
07446  0 50 23576  CNA
07447  0 01 07451  SKE #66666667
07450  0 43 00460  BRU **2 OK, SKIP
07451  0 20 21132  BRM ERROR NO,ERROR
07452  0 43 00434  NOP M54
BRM END LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 85
07453  0 43 00430  885  REM      21C23=P31
07454  0 76 23520  BRM      OBJECT
07455  0 46 01000  LDA      #55555555  START OBJECT TEST
07456  0 50 23452  CNA
07457  0 01 07461  SKE      #00000001
07460  0 43 00460  BRU      **2
07461  0 20 21135  BRM      ERROR    OK, SKIP
07462  0 43 00434  NOP      M55      NO,ERROR
07462  0 43 00434  BRM      END      LOOP IF BP1 SET
07463  0 43 00430  886  REM      21C22=P31
07464  0 76 23517  BRM      OBJECT
07465  0 46 01000  LDA      #33333333  START OBJECT TEST
07466  0 50 23452  CNA
07467  0 01 07471  SKE      #1
07470  0 43 00460  BRU      **2
07471  0 20 21140  BRM      ERROR    NO,ERROR
07472  0 43 00434  NOP      M56
07472  0 43 00434  BRM      END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 86
07473  0 43 00430  887  REM      21C26=P31
07474  0 76 23514  BRM      OBJECT
07475  0 46 01000  LDA      #66666666  START OBJECT TEST
07476  0 50 23577  CNA
07477  0 01 07501  SKE      #55555556
07500  0 43 00460  BRU      **2
07501  0 20 21143  BRM      ERROR    OK, SKIP
07502  0 43 00434  NOP      M57      NO,ERROR
07503  0 01 10000  BRM      END      LOOP IF BP1 SET
07503  0 01 10000  BRU      888
07504  77770274  DUMMY  EQU      ZERO**
07504  00274  BSS      DUMMY(AND)3777
10000  0 43 00430  888  REM      20D=P46
10001  0 76 23447  BRM      OBJECT
10002  0 71 23447  LDA      #0  START OBJECT TEST
10003  0 56 23447  LDX      #0
10004  0 72 23600  SUC      #0
10005  0 01 10007  SKA      #60000000
10006  0 43 00460  BRU      **2
10007  0 20 21146  BRM      ERROR    OK, SKIP
10010  0 43 00434  NOP      M58      NO,ERROR
10010  0 43 00434  BRM      END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 87

10011  0 43 00430  889  REM 260=P46
10012  0 76 23447  BRM OBJECT START OBJECT TEST
10013  0 71 23447  LDA #0
10014  0 56 23447  LDX #0
10015  0 72 23445  SUC #0
10016  0 01 10020  SKA #10000000
10017  0 43 00460  BRU **2 OK, SKIP
10020  0 20 21151  BRM ERROR NO,ERROR
10021  0 43 00434  NOP M59
10022  0 43 00430  BRM END LOOP IF BP1 SET
10023  0 76 23447  REM 13DP47
10024  0 71 23447  BRM OBJECT START OBJECT TEST
10025  0 56 23447  LDA #0
10026  0 72 23601  LDX #0
10027  0 01 10031  SUC #0
10028  0 43 00460  SKA #06000000
10030  0 43 00460  BRU **2 OK, SKIP
10031  0 20 21154  BRM ERROR NO,ERROR
10032  0 43 00434  NOP M60
10033  0 43 00434  BRM END LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 88

10033  0 43 00430  891  REM 140=P47
10034  0 76 23447  BRM OBJECT START OBJECT TEST
10035  0 71 23447  LDA #0
10036  0 56 23447  LDX #0
10037  0 72 23602  SUC #0
10040  0 01 10042  SKA #01000000
10041  0 43 00460  BRU **2 OK, SKIP
10042  0 20 21156  BRM ERROR NO,ERROR
10043  0 43 00434  NOP M61
10044  0 43 00430  BRM END LOOP IF BP1 SET
10045  0 43 00430  REM 70=P47
10046  0 76 23447  BRM OBJECT START OBJECT TEST
10047  0 71 23447  LDA #0
10048  0 56 23447  LDX #0
10050  0 72 23603  SUC #0
10051  0 01 10053  SKA #00600000
10052  0 43 00460  BRU **2 OK, SKIP
10053  0 20 21161  BRM ERROR NO,ERROR
10054  0 43 00434  NOP M62
10055  0 43 00434  BRM END LOOP IF BP1 SET

```

CPU0	TAP=3.0	01/15	03101	PAGE 89	
10055	0 43 00430	893	REM	100=P47	
10056	0 76 23447		BRM	OBJECT	START OBJECT TEST
10057	0 71 23447		LDA	#0	
10060	0 56 23447		LDX	#0	
10061	0 72 23604		SUC	#0	
10062	0 01 10064		SKA	#00100000	
10063	0 43 00460		BRU	##2	OK, SKIP
10064	0 20 21163		BRM	ERROR	NO,ERROR
10065	0 43 00434		NOP	M63	
			BRM	END	LOOP IF BP1 SET
10066	0 43 00430	894	REM	100=P47	
10067	0 76 23447		BRM	OBJECT	START OBJECT TEST
10070	0 71 23447		LDA	#0	
10071	0 56 23447		LDX	#0	
10072	0 72 23605		SUC	#0	
10073	0 01 10075		SKA	#00060000	
10074	0 43 00460		BRU	##2	OK, SKIP
10075	0 20 21166		BRM	ERROR	NO,ERROR
10076	0 43 00434		NOP	M64	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.0	01/15	03101	PAGE 90	
10077	0 43 00430	895	REM	40=P47,P48	
10100	0 76 23447		BRM	OBJECT	START OBJECT TEST
10101	0 71 23447		LDA	#0	
10102	0 56 23447		LDX	#0	
10103	0 72 23606		SUC	#0	
10104	0 01 10106		SKA	#00014000	
10105	0 43 00460		BRU	##2	OK, SKIP
10106	0 20 21170		BRM	ERROR	NO,ERROR
10107	0 43 00434		NOP	M65	
			BRM	END	LOOP IF BP1 SET
10110	0 43 00430	896	REM	60=P48	
10111	0 76 23447		BRM	OBJECT	START OBJECT TEST
10112	0 71 23447		LDA	#0	
10113	0 56 23447		LDX	#0	
10114	0 72 23607		SUC	#0	
10115	0 01 10117		SKA	#00003000	
10116	0 43 00460		BRU	##2	OK, SKIP
10117	0 20 21173		BRM	ERROR	NO,ERROR
10120	0 43 00434		NOP	M66	
			BRM	END	LOOP IF BP1 SET

```

CPU0  TAP=3.0  01/15  03101  PAGE 91

10121 0 43 00430 997  REM 10D=P48
10122 0 76 23447  BRM OBJECT START OBJECT TEST
10123 0 71 23447  LDA #0
10124 0 56 23447  LDX #0
10125 0 72 23610  SUC #0
10126 0 01 10130  SKA #00000400
10127 0 43 00460  BRU ++2 OK, SKIP
10130 0 20 21175  BRM ERROR NO,ERROR
10131 0 43 00434  NOP M67
10131 0 43 00434  BRM END LOOP IF BP1 SET
10131 0 43 00434  REM
10132 0 43 00430 998  REM 12D=P48
10133 0 76 23447  BRM OBJECT START OBJECT TEST
10134 0 71 23447  LDA #0
10135 0 56 23447  LDX #0
10136 0 72 23411  SUC #0
10136 0 72 23411  SKA #00000300
10137 0 01 10141  BRU ++2 OK, SKIP
10140 0 43 00460  BRM ERROR NO,ERROR
10141 0 20 21200  NOP M68
10142 0 43 00434  BRM END LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 92

10143 0 43 00430 999  REM 16D=P48
10144 0 76 23447  BRM OBJECT START OBJECT TEST
10145 0 71 23447  LDA #0
10146 0 56 23447  LDX #0
10147 0 72 23612  SUC #0
10150 0 01 10152  SKA #00000040
10151 0 43 00460  BRU ++2 OK, SKIP
10152 0 20 21203  BRM ERROR NO,ERROR
10153 0 43 00434  BRM END LOOP IF BP1 SET
10153 0 43 00434  REM
10154 0 43 00430 0100  REM 18D=P48
10155 0 76 23447  BRM OBJECT START OBJECT TEST
10156 0 71 23447  LDA #0
10157 0 56 23447  LDX #0
10160 0 72 23613  SUC #0
10161 0 01 10163  SKA #00000030
10162 0 43 00460  BRU ++2 OK, SKIP
10163 0 20 21206  BRM ERROR NO,ERROR
10164 0 43 00434  NOP M70
10164 0 43 00434  BRM END LOOP IF BP1 SET

```



```

CPU0  TAP=3.0  01/15  03101  PAGE 93

10165 0 43 00430 0101  REM 260=P49
10166 0 76 23447 BRM OBJECT START OBJECT TEST
10167 0 71 23447 LDA #0
10170 0 56 23447 LDX #0
10171 0 72 23454 SUC #0
10172 0 01 10174 SKA #00000004
10173 0 43 00460 BRU #+2 OK, SKIP
10174 0 20 21211 BRM ERROR NO,ERROR
10175 0 43 00434 NBP M71
BRM END LOOP IF BPI SET
REM 310=P49
10176 0 43 00430 0102 BRM OBJECT START OBJECT TEST
10177 0 76 23447 LDA #0
10200 0 71 23447 LDX #0
10201 0 56 23447 SUC #0
10202 0 72 23614 SKA #00000003
10203 0 01 10205 BRU #+2 OK, SKIP
10204 0 43 00460 BRM ERROR NO,ERROR
10205 0 20 21214 NBP M72
10206 0 43 00434 BRM END LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 94

10207 0 43 00430 0103  REM 200=P46
10210 0 76 23447 BRM OBJECT START OBJECT TEST
10211 0 71 23447 LDA #0
10212 0 56 23460 LDX #0
10213 0 20 00000 SUC #=1
10214 0 72 23600 NBP 0
10215 0 43 00460 SKA #60000000
10216 0 20 21217 BRM ERROR NO,ERROR
10217 0 43 00434 NBP M73
BRM END LOOP IF BPI SET
REM 260=P46
10220 0 43 00430 0104 BRM OBJECT START OBJECT TEST
10221 0 76 23447 LDA #0
10222 0 71 23447 LDX #0
10223 0 56 23460 SUC #=1
10224 0 20 00000 NBP 0
10225 0 72 23445 SKA #10000000
10226 0 43 00460 BRM ERROR NO,ERROR
10227 0 20 21222 NBP M74
10230 0 43 00434 BRM END LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 95

10231 0 43 00430 0105  REM 13DP47
10232 0 76 23447  BRM 0BJECT START OBJECT TEST
10233 0 71 23447  LDA #0
10234 0 56 23460  LDX #0
10235 0 20 00000  SUC #=1
10236 0 72 23601  NBP 0
10237 0 43 00460  SKA #06000000
10240 0 20 21225  BRM ERROR NO,ERROR
10241 0 43 00434  NBP M75
10242 0 43 00430  BRM END LOOP IF BP1 SET
10243 0 76 23447  BRM 16D=P47
10244 0 71 23447  LDA 0BJECT START OBJECT TEST
10245 0 56 23460  LDX #0
10246 0 20 00000  SUC #=1
10247 0 72 23602  NBP 0
10250 0 43 00460  SKA #01000000
10251 0 20 21227  BRM ERROR NO,ERROR
10252 0 43 00434  NBP M76
10252 0 43 00434  BRM END LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 96

10253 0 43 00430 0107  REM 7D=P47
10254 0 76 23447  BRM 0BJECT START OBJECT TEST
10255 0 71 23447  LDA #0
10256 0 56 23460  LDX #0
10257 0 20 00000  SUC #=1
10260 0 72 23603  NBP 0
10261 0 43 00460  SKA #00600000
10262 0 20 21232  BRM ERROR NO,ERROR
10263 0 43 00434  NBP M77
10264 0 43 00430  BRM END LOOP IF BP1 SET
10265 0 76 23447  REM 10D=P47
10266 0 71 23447  BRM 0BJECT START OBJECT TEST
10267 0 56 23460  LDA #0
10270 0 20 00000  LDX #0
10271 0 72 23604  SUC #=1
10272 0 43 00460  NBP 0
10273 0 20 21234  SKA #00100000
10274 0 43 00434  BRM ERROR NO,ERROR
10274 0 43 00434  NBP M78
10274 0 43 00434  BRM END LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 97
10275  0 43 00430  0109  REM 10=P47
10276  0 76 23447  BRM OBJECT START OBJECT TEST
10277  0 71 23447  LDA #0
10300  0 56 23460  LDX #0
10301  0 20 00000  SUC #=1
10302  0 72 23605  NOP 0
10303  0 43 00460  SKA #00060000 NO,ERROR
10304  0 20 21237  BRM ERROR
10305  0 43 00434  BRM M79 LOOP IF BP1 SET
10306  0 43 00430  0110  REM #D=P47,P48
10307  0 76 23447  BRM OBJECT START OBJECT TEST
10310  0 71 23447  LDA #0
10311  0 56 23460  LDX #0
10312  0 20 00000  SUC #=1
10313  0 72 23606  NOP 0
10314  0 43 00460  SKA #00014000 NO,ERROR
10315  0 20 21241  BRM ERROR
10316  0 43 00434  BRM M80 LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 98
10317  0 43 00430  0111  REM 60=P48
10320  0 76 23447  BRM OBJECT START OBJECT TEST
10321  0 71 23447  LDA #0
10322  0 56 23460  LDX #0
10323  0 20 00000  SUC #=1
10324  0 72 23607  NOP 0
10325  0 43 00460  SKA #00003000 NO,ERROR
10326  0 20 21244  BRM ERROR
10327  0 43 00434  BRM M81 LOOP IF BP1 SET
10330  0 43 00430  0112  REM 100=P48
10331  0 76 23447  BRM OBJECT START OBJECT TEST
10332  0 71 23447  LDA #0
10333  0 56 23460  LDX #0
10334  0 20 00000  SUC #=1
10335  0 72 23610  NOP 0
10336  0 43 00460  SKA #00000400 NO,ERROR
10337  0 20 21246  BRM ERROR
10340  0 43 00434  BRM M82 LOOP IF BP1 SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 99

10341  0 43 00430  *113  REM 120=P48
10342  0 76 23447  BRM OBJECT START OBJECT TEST
10343  0 71 23447  LDA #0
10344  0 56 23460  LDX #0
10345  0 20 00000  SUC #=1
10346  0 72 23611  NOP 0
10347  0 43 00460  SKA #00000300
10350  0 20 21251  BRM ERROR NO,ERROR
10351  0 43 00434  BRM M83 LOOP IF BPI SET
10352  0 43 00430  *114  REM 160=P48
10353  0 76 23447  BRM OBJECT START OBJECT TEST
10354  0 71 23447  LDA #0
10355  0 56 23460  LDX #0
10356  0 20 00000  SUC #=1
10357  0 72 23612  NOP 0
10360  0 43 00460  SKA #00000040
10361  0 20 21254  BRM ERROR NO,ERROR
10362  0 43 00434  BRM M84 LOOP IF BPI SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 100

10363  0 43 00430  *115  REM 180=P48
10364  0 76 23447  BRM OBJECT START OBJECT TEST
10365  0 71 23447  LDA #0
10366  0 56 23460  LDX #0
10367  0 20 00000  SUC #=1
10370  0 72 23613  NOP 0
10371  0 43 00460  SKA #00000030
10372  0 20 21257  BRM ERROR NO,ERROR
10373  0 43 00434  BRM M85 LOOP IF BPI SET
10374  0 43 00430  *116  REM 260=P49
10375  0 76 23447  BRM OBJECT START OBJECT TEST
10376  0 71 23447  LDA #0
10377  0 56 23460  LDX #0
10400  0 20 00000  SUC #=1
10401  0 72 23454  NOP 0
10402  0 43 00460  SKA #00000004
10403  0 20 21262  BRM ERROR NO,ERROR
10404  0 43 00434  BRM M86 LOOP IF BPI SET

```

CPUO	TAP=3.C	01/15	03101	PAGE 101	
10405	0 43 00430	0117	REM	310=P49	
10406	0 76 23447		BRM	OBJECT	START OBJECT TEST
10407	0 71 23447		LDA	#0	
10410	0 56 23460		LDX	#0	
10411	0 20 00000		SUC	#=1	
10412	0 72 23614		NOP	0	
10413	0 43 00460		SKA	#00000003	
10414	0 20 21265		BRM	ERROR	NO,ERROR
10415	0 43 00434		NOP	M87	LOOP IF BP1 SET
			BRM	END	
10416	0 43 00430	0118	REM	20B=P31	
10417	0 76 23466		BRM	OBJECT	START OBJECT TEST
10420	0 66 00001		LDA	#40000000	
10421	0 72 23615		RSH	1	
10422	0 01 10424		SKA	#20000000	
10423	0 43 00460		BRU	#+2	OK, SKIP
10424	0 20 21270		BRM	ERROR	NO,ERROR
10425	0 43 00434		NOP	M88	LOOP IF BP1 SET
			BRM	END	

CPUO	TAP=3.C	01/15	03101	PAGE 102	
10426	0 43 00430	0119	REM	20B=P31	
10427	0 76 23470		BRM	OBJECT	START OBJECT TEST
10430	0 66 00001		LDA	#37777777	
10431	0 72 23615		RSH	1	
10432	0 43 00460		SKA	#20000000	
10433	0 20 21273		BRM	ERROR	NO,ERROR
10434	0 43 00434		NOP	M89	LOOP IF BP1 SET
			BRM	END	
10435	0 43 00430	0120	REM	20B=P31	
10436	0 76 23615		BRM	OBJECT	START OBJECT TEST
10437	0 66 00001		LDA	#20000000	
10440	0 72 23445		RSH	1	
10441	0 01 10443		SKA	#10000000	
10442	0 43 00460		BRU	#+2	OK, SKIP
10443	0 20 21276		BRM	ERROR	NO,ERROR
10444	0 43 00434		NOP	M90	LOOP IF BP1 SET
			BRM	END	

```

CPU0  TAP=3.0  01/15  03101  PAGE 103

10445 0 43 00430 0121  REM      208=P31
10446 0 76 23616  BRM      OBJECT          START OBJECT TEST
10447 0 66 00001  LDA      #87777777
10450 0 72 23445  RSH      1
10451 0 43 00460  SKA      #10000000
10452 0 20 21301  BRM      ERROR          NO,ERROR
10453 0 43 00434  NOP      M91
10454 0 43 00430  BRM      END          LOOP IF BPI SET
10455 0 76 23445  REM      268=P31
10456 0 66 00001  BRM      OBJECT          START OBJECT TEST
10457 0 72 23617  LDA      #10000000
10460 0 01 10462  RSH      1
10461 0 43 00460  SKA      #04000000
10462 0 20 21304  BRU      #2          OK, SKIP
10463 0 43 00434  BRM      ERROR          NO,ERROR
10463 0 43 00434  NOP      M92
10463 0 43 00434  BRM      END          LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 104

10464 0 43 00430 0123  REM      268P31
10465 0 76 23620  BRM      OBJECT          START OBJECT TEST
10466 0 66 00001  LDA      #67777777
10467 0 72 23617  RSH      1
10470 0 43 00460  SKA      #04000000
10471 0 20 21307  BRM      ERROR          NO,ERROR
10472 0 43 00434  NOP      M93
10472 0 43 00434  BRM      END          LOOP IF BPI SET
10473 0 43 00430  REM      138=P32
10474 0 76 23617  BRM      OBJECT          START OBJECT TEST
10475 0 66 00001  LDA      #04000000
10476 0 72 23621  RSH      1
10477 0 01 10501  SKA      #02000000
10500 0 43 00460  BRU      #2          OK, SKIP
10501 0 20 21311  BRM      ERROR          NO,ERROR
10502 0 43 00434  NOP      M94
10502 0 43 00434  BRM      END          LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 105
10503  0 43 00430  *125  REM      13B=P32
10504  0 76 23622  BRM      OBJECT      START OBJECT TEST
10505  0 66 00001  LDA      #73777777
10506  0 72 23621  RSH      1
10507  0 43 00460  SKA      #02000000
10510  0 20 21314  BRM      ERROR      NO,ERROR
10511  0 43 00434  NBP      M95
10511  0 43 00434  BRM      END        LOOP IF BP1 SET
10512  0 43 00430  REM      13B=P32
10513  0 76 23621  BRM      OBJECT      START OBJECT TEST
10514  0 66 00001  LDA      #02000000
10515  0 72 23602  RSH      1
10516  0 01 10620  SKA      #01000000
10517  0 43 00460  BRU      **2        OK, SKIP
10520  0 20 21317  BRM      ERROR      NO,ERROR
10521  0 43 00434  NBP      M96
10521  0 43 00434  BRM      END        LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 106
10522  0 43 00430  *127  REM      13B=P32
10523  0 76 23622  BRM      OBJECT      START OBJECT TEST
10524  0 66 00001  LDA      #75777777
10525  0 72 23602  RSH      1
10526  0 43 00460  SKA      #01000000
10527  0 20 21322  BRM      ERROR      NO,ERROR
10530  0 43 00434  NBP      M97
10530  0 43 00434  BRM      END        LOOP IF BP1 SET
10531  0 43 00430  REM      16B=P32
10532  0 76 23602  BRM      OBJECT      START OBJECT TEST
10533  0 66 00001  LDA      #01000000
10534  0 72 23624  RSH      1
10535  0 01 10537  SKA      #00400000
10536  0 43 00460  BRU      **2        OK, SKIP
10537  0 20 21325  BRM      ERROR      NO,ERROR
10540  0 43 00434  NBP      M98
10540  0 43 00434  BRM      END        LOOP IF BP1 SET

```

CPU0	TAP=3.0	01/15	03101	PAGE 107	
10541	0 43 00430	*129	REM	168=P32	
10542	0 76 23625		BRM	OBJECT	START OBJECT TEST
10543	0 66 00001		LDA	#76777777	
10544	0 72 23624		RSH	1	
10545	0 43 00460		SKA	#00400000	
10546	0 20 21330		BRM	ERROR	NO,ERROR
10547	0 43 00434		NBP	M99	LOOP IF BPI SET
			BRM	END	
			REM	78=P32	
10550	0 43 00430	*130	BRM	OBJECT	START OBJECT TEST
10551	0 76 23624		LDA	#00400000	
10552	0 66 00001		RSH	1	
10553	0 72 23626		SKA	#00200000	
10554	0 01 10556		BRU	**2	OK, SKIP
10555	0 43 00460		BRM	ERROR	NO,ERROR
10556	0 20 21333		NBP	M100	
10557	0 43 00434	BRM	END	LOOP IF BPI SET	

CPU0	TAP=3.0	01/15	03101	PAGE 108	
			REM	78=P32	
10560	0 43 00430	*131	BRM	OBJECT	START OBJECT TEST
10561	0 76 23627		LDA	#77377777	
10562	0 66 00001		RSH	1	
10563	0 72 23626		SKA	#00200000	
10564	0 43 00460		BRM	ERROR	NO,ERROR
10565	0 20 21335		NBP	M101	LOOP IF BPI SET
10566	0 43 00434		BRM	END	
			REM	78=P32	
10567	0 43 00430	*132	BRM	OBJECT	START OBJECT TEST
10570	0 76 23626		LDA	#00200000	
10571	0 66 00001		RSH	1	
10572	0 72 23604		SKA	#00100000	
10573	0 01 10575		BRU	**2	OK, SKIP
10574	0 43 00460		BRM	ERROR	NO,ERROR
10575	0 20 21337		NBP	M102	LOOP IF BPI SET
10576	0 43 00434	BRM	END		


```

CPU0  TAP=3.0  01/15  03101  PAGE 109

10577  0 43 00430  0133  REM 78=P32
10600  0 76 23630  BRM OBJECT          START OBJECT TEST
10601  0 66 00001  LDA #77577777
10602  0 72 23604  RSH 1
10603  0 43 00460  SKA #00100000
10604  0 20 21341  BRM ERROR          NO,ERROR
10605  0 43 00434  NOP M103
BRM END          LOOP IF BPI SET
REM 108=P32
10606  0 43 00430  0134  BRM OBJECT          START OBJECT TEST
10607  0 76 23604  LDA #00100000
10610  0 66 00001  RSH 1
10611  0 72 23511  SKA #00040000
10612  0 01 10614  BRU **2          OK, SKIP
10613  0 43 00460  BRM ERROR          NO,ERROR
10614  0 20 21343  NOP M104
10615  0 43 00434  BRM END          LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 110

10616  0 43 00430  0135  REM 108=P32
10617  0 76 23631  BRM OBJECT          START OBJECT TEST
10620  0 66 00001  LDA #77677777
10621  0 72 23511  RSH 1
10622  0 43 00460  SKA #00040000
10623  0 20 21346  BRM ERROR          NO,ERROR
10624  0 43 00434  NOP M105
BRM END          LOOP IF BPI SET
REM 18=P32
10625  0 43 00430  0136  BRM OBJECT          START OBJECT TEST
10626  0 76 23511  LDA #00040000
10627  0 66 00001  RSH 1
10630  0 72 23632  SKA #00020000
10631  0 01 10633  BRU **2          OK, SKIP
10632  0 43 00460  BRM ERROR          NO,ERROR
10633  0 20 21351  NOP M106
10634  0 43 00434  BRM END          LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 111
10635  0 43 00430  0137  REM 1B=P32
10636  0 76 23633  BRM OBJECT START OBJECT TEST
10637  0 66 00001  LDA #77737777
10640  0 72 23632  RSH 1
10641  0 43 00460  SKA #00020000 NO,ERROR
10642  0 20 21353  BRM ERROR
10643  0 43 00434  NBP M107 LOOP IF BP1 SET
BRM END
10644  0 43 00430  0138  REM 1B=P32
10645  0 76 23632  BRM OBJECT START OBJECT TEST
10646  0 66 00001  LDA #00020000
10647  0 72 23634  RSH 1
10650  0 01 10652  SKA #00010000
10651  0 43 00460  BRU #+2 OK, SKIP
10652  0 20 21355  BRM ERROR NO,ERROR
10653  0 43 00434  NBP M108 LOOP IF BP1 SET
BRM END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 112
10654  0 43 00430  0139  REM 1B=P32
10655  0 76 23635  BRM OBJECT START OBJECT TEST
10656  0 66 00001  LDA #77757777
10657  0 72 23634  RSH 1
10660  0 43 00460  SKA #00010000 NO,ERROR
10661  0 20 21357  BRM ERROR
10662  0 43 00434  NBP M109 LOOP IF BP1 SET
BRM END
10663  0 43 00430  0140  REM 1B=P32
10664  0 76 23634  BRM OBJECT START OBJECT TEST
10665  0 66 00001  LDA #00010000
10666  0 72 23512  RSH 1
10667  0 01 10671  SKA #00004000
10670  0 43 00460  BRU #+2 OK, SKIP
10671  0 20 21361  BRM ERROR NO,ERROR
10672  0 43 00434  NBP M110 LOOP IF BP1 SET
BRM END

```

```

CPUO  TAP=3.C  01/15  03101  PAGE 113
10673  0 43 00430  0141  REM  9B=P32
10674  0 76 23636  BRM  OBJECT          START OBJECT TEST
10675  0 66 00001  LDA  #77767777
10676  0 72 23512  RSH  1
10677  0 43 00460  SKA  #00004000      NO,ERROR
10700  0 20 21363  BRM  ERROR
10701  0 43 00434  NBP  M111          LOOP IF BP1 SET
                                BRM  END
                                REM  4B=P33
                                BRM  OBJECT          START OBJECT TEST
10702  0 43 00430  0142  LDA  #00004000
10703  0 76 23512  RSH  1
10704  0 66 00001  SKA  #00002000
10705  0 72 23637  BRU  #42          OK, SKIP
10706  0 01 10710  BRM  ERROR        NO,ERROR
10707  0 43 00460  NBP  M112
10710  0 20 21365  BRM  END          LOOP IF BP1 SET
10711  0 43 00434

```

```

CPUO  TAP=3.C  01/15  03101  PAGE 114
10712  0 43 00430  0143  REM  4B=P33
10713  0 76 23640  BRM  OBJECT          START OBJECT TEST
10714  0 66 00001  LDA  #77773777
10715  0 72 23637  RSH  1
10716  0 43 00460  SKA  #00002000      NO,ERROR
10717  0 20 21367  BRM  ERROR
10720  0 43 00434  NBP  M113          LOOP IF BP1 SET
                                BRM  END
                                REM  6B=P33
                                BRM  OBJECT          START OBJECT TEST
10721  0 43 00430  0144  LDA  #00002000
10722  0 76 23637  RSH  1
10723  0 66 00001  SKA  #00001000
10724  0 72 23641  BRU  #42          OK, SKIP
10725  0 01 10727  BRM  ERROR        NO,ERROR
10726  0 43 00460  NBP  M114
10727  0 20 21371  BRM  END          LOOP IF BP1 SET
10730  0 43 00434

```

CPU0 TAP-3.0 01/15 03101 PAGE 115

10731	0	43	00430	8145	REM	68-P33	
10732	0	76	23642		BRM	OBJECT	START OBJECT TEST
10733	0	66	00001		LDA	#7777B777	
10734	0	72	23641		RSH	1	
10735	0	43	00460		SKA	#00001000	NO,ERROR
10736	0	20	21373		BRM	ERROR	
10737	0	43	00434		NOP	M115	LOOP IF BPI SET
					BRM	END	

CPU0 TAP-3.0 01/15 03101 PAGE 116

10740	0	43	00430	8146	REM	68-P33	
10741	0	76	23641		BRM	OBJECT	START OBJECT TEST
10742	0	66	00001		LDA	#00001000	
10743	0	72	23610		RSH	1	
10744	0	01	10746		SKA	#00000400	OK, SKIP
10745	0	43	00460		BRU	#=2	NO,ERROR
10746	0	20	21375		BRM	ERROR	
10747	0	43	00434		NOP	M116	LOOP IF BPI SET
					BRM	END	

CPU0	TAP-3.C	01/15	03101	PAGE 117	
10750	0 43 00430	0147	REM	68=P33	
10751	0 76 23643		BRM	OBJECT	START OBJECT TEST
10752	0 66 00001		LDA	#77776777	
10753	0 72 23610		RSH	1	
10754	0 43 00460		SKA	#00000400	
10755	0 20 21377		BRM	ERROR	NO,ERROR
10756	0 43 00434		NOP	M117	
			BRM	END	LOOP IF BPI SET

CPU0	TAP-3.C	01/15	03101	PAGE 118	
10757	0 43 00430	0148	REM	108=P33	
10760	0 76 23610		BRM	OBJECT	START OBJECT TEST
10761	0 66 00001		LDA	#00000400	
10762	0 72 23644		RSH	1	
10763	0 01 10765		SKA	#00000200	
10764	0 43 00460		BRU	*+2	OK, SKIP
10765	0 20 21401		BRM	ERROR	NO,ERROR
10766	0 43 00434		NOP	M118	
			BRM	END	LOOP IF BPI SET

CPU0	TAP=3.0	01/15	03101	PAGE 119	
10767	0 43 00430	0149	REM	108=P33	
10770	0 76 23645		BRM	OBJECT	START OBJECT TEST
10771	0 66 00001		LDA	#77777377	
10772	0 72 23644		RSH	1	
10773	0 43 00460		SKA	#00000200	
10774	0 20 21404		BRM	ERROR	NO,ERROR
10775	0 43 00434		NBP	M119	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.0	01/15	03101	PAGE 120	
10776	0 43 00430	0150	REM	128=P33	
10777	0 76 23644		BRM	OBJECT	START OBJECT TEST
11000	0 66 00001		LDA	#00000200	
11001	0 72 23644		RSH	1	
11002	0 01 11004		SKA	#00000100	
11003	0 43 00460		BRU	++2	OK, SKIP
11004	0 20 21407		BRM	ERROR	NO,ERROR
11005	0 43 00434		NBP	M120	
			BRM	END	LOOP IF BP1 SET

CPUO TAP-3.0 01/15 03101 PAGE 123

11025	0	43	00430	0153	REM	125=P33	
11026	0	76	23650		BRM	OBJECT	START OBJECT TEST
11027	0	66	00001		LDA	#77777677	
11030	0	72	23612		RSH	1	
11031	0	43	00460		SKA	#00000040	
11032	0	20	21420		BRM	ERROR	NO,ERROR
11033	0	43	00434		NOP	#123	
					BRM	END	LOOP IF BPI SET

CPUO TAP-3.0 01/15 03101 PAGE 124

11034	0	43	00430	0154	REM	168=P33	
11035	0	76	23612		BRM	OBJECT	START OBJECT TEST
11036	0	66	00001		LDA	#00000040	
11037	0	72	23651		RSH	1	
11040	0	01	11042		SKA	#00000020	
11041	0	43	00460		BRU	#2	OK, SKIP
11042	0	20	21423		BRM	ERROR	NO,ERROR
11043	0	43	00434		NOP	#124	
					BRM	END	LOOP IF BPI SET


```

CPU0   TAP=3.0   01/15  03101  PAGE 125
11044  0 43 00430  0155  REM      168=P33
11045  0 76 23652  BRM      OBJECT      START OBJECT TEST
11046  0 66 00001  LDA      077777737
11047  0 72 23651  RSH      1
11050  0 43 00460  SKA      000000020
11051  0 20 21426  BRM      ERROR      NO,ERROR
11052  0 43 00434  NOP      M125      LOOP IF BP1 SET
BRM      END

```

```

CPU0   TAP=3.0   01/15  03101  PAGE 126
11053  0 43 00430  0156  REM      188=P33
11054  0 76 23651  BRM      OBJECT      START OBJECT TEST
11055  0 66 00001  LDA      000000020
11056  0 72 23653  RSH      1
11057  0 01 11061  SKA      000000010
11060  0 43 00460  BRU      *+2      SK, SKIP
11061  0 20 21431  BRM      ERROR      NO,ERROR
11062  0 43 00434  NOP      M126      LOOP IF BP1 SET
BRM      END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 127
11063 0 43 00430 0157  REM      188=P33
11064 0 76 23454  BRM      OBJECT      START OBJECT TEST
11065 0 66 00001  LDA      @77777787
11066 0 72 23653  RSH      1
11067 0 43 00460  SKA      @00000010
11070 0 20 21434  BRM      ERROR      NO,ERROR
11071 0 43 00434  NOP      M127
                                LOOP IF BP1 SET
                                END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 128
11072 0 43 00430 0158  REM      188=P33
11073 0 76 23653  BRM      OBJECT      START OBJECT TEST
11074 0 66 00001  LDA      @00000010
11075 0 72 23454  RSH      1
11076 0 01 11100  SKA      @00000004
11077 0 43 00460  BRU      ++2      SK, SKIP
11100 0 20 21437  BRM      ERROR      NO,ERROR
11101 0 43 00434  NOP      M128
                                LOOP IF BP1 SET
                                END

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 129
11102  0 43 00430  0159  REM      188=P33
11103  0 76 23655  BRM      OBJECT      START OBJECT TEST
11104  0 66 00001  LDA      #77777767
11105  0 72 23454  RSH      1
11106  0 43 00460  SKA      #00000004
11107  0 20 21442  BRM      ERROR      NO,ERROR
11110  0 43 00434  NOP      M129      LOOP IF BP1 SET
          BRM      END

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 130
11111  0 43 00430  0160  REM      268=P34
11112  0 76 23454  BRM      OBJECT      START OBJECT TEST
11113  0 66 00001  LDA      #00000004
11114  0 72 23453  RSH      1
11115  0 01 11117  SKA      #00000002
11116  0 43 00460  BRU      **2      SK, SKIP
11117  0 20 21445  BRM      ERROR      NO,ERROR
11120  0 43 00434  NOP      M130      LOOP IF BP1 SET
          BRM      END

```

CPU0	TAP=3.C	01/15	03101	PAGE 131	
11121	0 43 00430	0161	REM	268=P34	
11122	0 76 23513		BRM	OBJECT	START OBJECT TEST
11123	0 66 00001		LDA	#77777773	
11124	0 72 23453		RSH	1	
11125	0 43 00460		SKA	#00000002	NO,ERROR
11126	0 20 21450		BRM	ERROR	
11127	0 43 00434		NOP	M131	LOOP IF BP1 SET
			BRM	END	

CPU0	TAP=3.C	01/15	03101	PAGE 132	
11130	0 43 00430	0162	REM	328=P34	
11131	0 76 23453		BRM	OBJECT	START OBJECT TEST
11132	0 66 00001		LDA	#00000002	
11133	0 72 23452		RSH	1	
11134	0 01 11136		SKA	#00000001	OK, SKIP
11135	0 43 00460		BRU	**2	NO,ERROR
11136	0 20 21453		BRM	ERROR	
11137	0 43 00434		NOP	M132	LOOP IF BP1 SET
			BRM	END	

```

CPU0  TAP=3.0  01/15  03101  PAGE 133
11140  0 43 00430  0163  REM      328=P34
11141  0 76 23656  BRM      OBJECT      START OBJECT TEST
11142  0 66 00001  LDA      #77777778
11143  0 72 23452  RSH      1
11144  0 43 00460  SKA      #00000001
11145  0 20 21456  BRM      ERROR      NO,ERROR
11146  0 43 00434  NOP      M133
11146  0 43 00434  BRM      END        LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 134
11147  0 43 00430  0164  REM      20C=P36
11150  0 76 23452  BRM      OBJECT      START OBJECT TEST
11151  0 75 23447  LDA      #00000001
11152  0 66 00001  LDB      #0
11153  0 36 23437  RSH      1
11154  0 76 23437  STB      TEMP
11155  0 72 23466  LDA      TEMP
11156  0 01 11160  SKA      #40000000
11157  0 43 00460  BRU      #+2      OK, SKIP
11160  0 20 21461  BRM      ERROR      NO,ERROR
11161  0 43 00434  NOP      M134
11161  0 43 00434  BRM      END        LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 135
11162  0 43 00430  1165  REM      20C=P36
11163  0 76 23501  BRM      OBJECT      START OBJECT TEST
11164  0 75 23460  LDA      #77777776
11165  0 66 00001  LDB      #77777777
11166  0 36 23437  RSH      1
11167  0 76 23437  STB      TEMP
11170  0 72 23466  LDA      TEMP
11171  0 43 00460  SKA      #40000000
11172  0 20 21464  BRM      ERROR      NO,ERROR
11173  0 43 00434  NBP      M135
BRM      END          LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 136
11174  0 43 00430  1166  REM      20C=P36
11175  0 75 23466  BRM      OBJECT      START OBJECT TEST
11176  0 66 00001  LDB      #40000000
11177  0 36 23437  RSH      1
11200  0 76 23437  STB      TEMP
11201  0 72 23615  LDA      TEMP
11202  0 01 11204  SKA      #20000000
11203  0 43 00460  BRU      #+2      OK, SKIP
11204  0 20 21467  BRM      ERROR      NO,ERROR
11205  0 43 00434  NBP      M136
BRM      END          LOOP IF BPI SET

```

CPU0	TAP=3.0	01/15	02101	PAGE 137	
				REM	20C=P36
11206	0 43 00430	0167	BRM	OBJECT	START OBJECT TEST
11207	0 75 23470		LDB	#37777777	
11210	0 66 00001		RSH	1	
11211	0 36 23437		STB	TEMP	
11212	0 76 23437		LDA	TEMP	
11213	0 72 23615		SKA	#20000000	
11214	0 43 00460		BRM	ERROR	NO,ERROR
11215	0 20 21472		NBP	M137	
11216	0 43 00434		BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.0	01/15	02101	PAGE 138	
				REM	26C=P36
11217	0 43 00430	0168	BRM	OBJECT	START OBJECT TEST
11220	0 75 23615		LDB	#20000000	
11221	0 66 00001		RSH	1	
11222	0 36 23437		STB	TEMP	
11223	0 76 23437		LDA	TEMP	
11224	0 72 23445		SKA	#10000000	
11225	0 01 11227		BRU	++2	OK, SKIP
11226	0 43 00460		BRM	ERROR	NO,ERROR
11227	0 20 21475		NBP	M138	
11230	0 43 00434		BRM	END	LOOP IF BP1 SET

```

CPUO   TAP=3.0   01/15  03101  PAGE 139
11231  0 43 00430  0169  REM      26C-P36
11232  0 75 23616  BRM      OBJECT      START OBJECT TEST
11233  0 66 00001  LDB      #87777777
11234  0 36 23437  RSH      1
11235  0 76 23437  STB      TEMP
11236  0 72 23445  LDA      TEMP
11237  0 43 00460  SKA      #10000000
11240  0 20 21500  BRM      ERROR      NO,ERROR
11241  0 43 00434  NBP      M139
BRM      END          LOOP IF BPI SET

```

```

CPUO   TAP=3.0   01/15  03101  PAGE 140
11242  0 43 00430  0170  REM      26C-P36
11243  0 75 23445  BRM      OBJECT      START OBJECT TEST
11244  0 66 00001  LDB      #10000000
11245  0 36 23437  RSH      1
11246  0 76 23437  STB      TEMP
11247  0 72 23617  LDA      TEMP
11250  0 01 11252  SKA      #04000000
11251  0 43 00460  BRU      **2          OK, SKIP
11252  0 20 21503  BRM      ERROR      NO,ERROR
11253  0 43 00434  NBP      M140
BRM      END          LOOP IF BPI SET

```



```

CPU0  TAP=3.0  01/15  03101  PAGE 141
11254 0 43 00430 0171 REM 26C=P36
11255 0 75 23620 BRM OBJECT START OBJECT TEST
11256 0 66 00001 LDB #67777777
11257 0 36 23437 RSH 1
11260 0 76 23437 STB TEMP
11261 0 72 23617 LDA TEMP
11262 0 43 00460 SKA #0*000000 NO,ERROR
11263 0 20 21506 BRM ERROR
11264 0 43 00434 NSP M141 LOOP IF BP1 SET
BRM END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 142
11265 0 43 00430 0172 REM 13C=P37
11266 0 75 23617 BRM OBJECT START OBJECT TEST
11267 0 66 00001 LDB #0*000000
11270 0 36 23437 RSH 1
11271 0 76 23437 STB TEMP
11272 0 72 23621 LDA TEMP
11273 0 01 11275 BRU **2 SK, SKIP
11274 0 43 00460 BRM ERROR NO,ERROR
11275 0 20 21511 NSP M142 LOOP IF BP1 SET
11276 0 43 00434 BRM END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 143
11277 0 43 00430 0173  REM 13C=P37
11300 0 75 23622 BRM OBJECT START OBJECT TEST
11301 0 66 00001 LDB #73777777
11302 0 36 23437 RSH 1
11303 0 76 23437 STB TEMP
11304 0 72 23621 LDA TEMP
11305 0 43 00460 SKA #02000000 NO,ERROR
11306 0 20 21514 BRM ERROR
11307 0 43 00434 NOP M143
END LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 144
11310 0 43 00430 0174  REM 13C=P37
11311 0 75 23621 BRM OBJECT START OBJECT TEST
11312 0 66 00001 LDB #02000000
11313 0 36 23437 RSH 1
11314 0 76 23437 STB TEMP
11315 0 72 23602 LDA TEMP
11316 0 01 11320 SKA #01000000
11317 0 43 00460 BRU #+2 OK, SKIP
11320 0 20 21517 BRM ERROR NO,ERROR
11321 0 43 00434 NOP M144
END LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 145
      REM      15C=P37
11322 0 43 00430 0175 BRM  OBJECT      START OBJECT TEST
11323 0 75 23623 LDB  #75777777
11324 0 66 00001 RSH  1
11325 0 36 23437 STB  TEMP
11326 0 76 23437 LDA  TEMP
11327 0 72 23602 SKA  #01000000
11330 0 43 00460 BRM  ERROR      NO,ERROR
11331 0 20 21522 NOP  M145
11332 0 43 00434 BRM  END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 146
      REM      15C=P37
11333 0 43 00430 0176 BRM  OBJECT      START OBJECT TEST
11334 0 75 23602 LDB  #01000000
11335 0 66 00001 RSH  1
11336 0 36 23437 STB  TEMP
11337 0 76 23437 LDA  TEMP
11340 0 72 23624 SKA  #00*00000
11341 0 01 11343 BRU  **2      SK, SKIP
11342 0 43 00460 BRM  ERROR      NO,ERROR
11343 0 20 21525 NOP  M146
11344 0 43 00434 BRM  END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 147
11345  0 43 00430  0177  REM      15C-P37
11346  0 75 23625  BRM      OBJECT      START OBJECT TEST
11347  0 66 00001  LDB      76777777
11350  0 36 23437  RSH      1
11351  0 76 23437  STB      TEMP
11352  0 72 23624  LDA      TEMP
11353  0 43 00460  SKA      00400000
11354  0 20 21530  BRM      ERROR      NO,ERROR
11355  0 43 00434  NBP      M147      LOOP IF BPI SET
          BRM      END

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 148
11356  0 43 00430  0178  REM      7C-P38
11357  0 75 23624  BRM      OBJECT      START OBJECT TEST
11360  0 66 00001  LDB      00400000
11361  0 36 23437  RSH      1
11362  0 76 23437  STB      TEMP
11363  0 72 23626  LDA      TEMP
11364  0 01 11366  SKA      00200000
11365  0 43 00460  BRM      **2      OK, SKIP
11366  0 20 21533  BRM      ERROR      NO,ERROR
11367  0 43 00434  NBP      M148      LOOP IF BPI SET
          BRM      END

```

CPU0	TAP=3.0	01/15	03101	PAGE 149	
11370	0 43 00430	0179	REM	7C=P38	
11371	0 75 23627		BRM	OBJECT	START OBJECT TEST
11372	0 66 00001		LDB	#77377777	
11373	0 36 23437		RSH	1	
11374	0 76 23437		STB	TEMP	
11375	0 72 23626		LDA	TEMP	
11376	0 43 00460		SKA	#00200000	
11377	0 20 21535		BRM	ERROR	NO,ERROR
11400	0 43 00434		NOP	M149	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.0	01/15	03101	PAGE 150	
11401	0 43 00430	0180	REM	9C=P38	
11402	0 75 23626		BRM	OBJECT	START OBJECT TEST
11403	0 66 00001		LDB	#00200000	
11404	0 36 23437		RSH	1	
11405	0 76 23437		STB	TEMP	
11406	0 72 23604		LDA	TEMP	
11407	0 01 11411		SKA	#00100000	
11410	0 43 00460		BRU	#+2	OK, SKIP
11411	0 20 21537		BRM	ERROR	NO,ERROR
11412	0 43 00434		NOP	M150	
			BRM	END	LOOP IF BP1 SET

```

CPUO  TAP=3.0  01/15  03101  PAGE 181
11413 0 43 00430 0181  REM 9C=P38
11414 0 75 23630 BRM OBJECT START OBJECT TEST
11415 0 66 00001 LDB #77577777
11416 0 36 23437 RSH 1
11417 0 76 23437 STB TEMP
11420 0 72 23604 LDA TEMP
11421 0 43 00460 SKA #00100000
11422 0 20 21541 BRM ERROR NO,ERROR
11423 0 43 00434 BRM M181 LOOP IF BP1 SET
END

```

```

CPUO  TAP=3.0  01/15  03101  PAGE 182
11424 0 43 00430 0182  REM 9C=P38
11425 0 75 23604 BRM OBJECT START OBJECT TEST
11426 0 66 00001 LDB #00100000
11427 0 36 23437 RSH 1
11430 0 76 23437 STB TEMP
11431 0 72 23511 LDA TEMP
11432 0 01 11434 SKA #00040000
11433 0 43 00460 BRM #+2 NO,ERROR
11434 0 20 21543 BRM ERROR
11435 0 43 00434 BRM M182 LOOP IF BP1 SET
END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 153
11436 0 43 00430  5183  REM      9C=P38
11437 0 75 23631  BRM      OBJECT      START OBJECT TEST
11440 0 66 00001  RSH      #77&777777
11441 0 36 23437  STB      1
11442 0 76 23437  LDA      TEMP
11443 0 72 23511  SKA      #00040000
11444 0 43 00460  BRM      ERROR      NO,ERROR
11445 0 20 21545  NOP      #153
11446 0 43 00434  BRM      END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 154
11447 0 43 00430  5184  REM      1C=P39
11450 0 75 23511  BRM      OBJECT      START OBJECT TEST
11451 0 66 00001  RSH      #00040000
11452 0 36 23437  STB      1
11453 0 76 23437  LDA      TEMP
11454 0 72 23632  SKA      #00020000
11455 0 01 11457  BRM      #+2      OK, SKIP
11456 0 43 00460  BRM      ERROR      NO,ERROR
11457 0 20 21547  NOP      #154
11460 0 43 00434  BRM      END      LOOP IF BP1 SET

```

```

CPUO  TAP-3.0  01/15  03101  PAGE 155
11461  0 43 00430  0185  REM      1C=P39
11462  0 75 23633  BRM      0BJECT      START OBJECT TEST
11463  0 66 00001  LDB      #77737777
11464  0 36 23437  RSH      1
11465  0 76 23437  STB      TEMP
11466  0 72 23632  LDA      TEMP
11466  0 72 23632  SKA      #00020000
11467  0 43 00460  BRM      ERROR
11470  0 20 21547  NBP      M154
11471  0 43 00434  BRM      END      LOOP IF BPI SET

```

```

CPUO  TAP-3.0  01/15  03101  PAGE 156
11472  0 43 00430  0186  REM      3C=P39
11473  0 75 23632  BRM      0BJECT      START OBJECT TEST
11474  0 66 00001  LDB      #00020000
11475  0 36 23437  RSH      1
11476  0 76 23437  STB      TEMP
11476  0 76 23437  LDA      TEMP
11477  0 72 23634  SKA      #00010000
11500  0 01 11502  BRU      *+2      OK, SKIP
11501  0 43 00460  BRM      ERROR      NO,ERROR
11502  0 20 21556  NBP      M156
11503  0 43 00434  BRM      END      LOOP IF BPI SET

```



```

CPU0  TAP=3.0  01/15  03101  PAGE 157
11504  0 43 00430  0187  REM      3C-P39
11505  0 75 23635  BRM      OBJECT      START OBJECT TEST
11506  0 66 00001  LDB      #77757777
11507  0 36 23437  RSH      1
11510  0 76 23437  STB      TEMP
11511  0 72 23634  LDA      TEMP
11512  0 43 00460  SKA      #00010000
11513  0 20 21560  BRM      ERROR      NO,ERROR
11514  0 43 00434  NOP      #157
11514  0 43 00434  BRM      END        LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 158
11515  0 43 00430  0188  REM      3C-P39
11516  0 75 23634  BRM      OBJECT      START OBJECT TEST
11517  0 66 00001  LDB      #00010000
11520  0 36 23437  RSH      1
11521  0 76 23437  STB      TEMP
11522  0 72 23512  LDA      TEMP
11523  0 01 11525  SKA      #00004000
11524  0 43 00460  BRU      #+2      OK, SKIP
11525  0 20 21562  BRM      ERROR      NO,ERROR
11526  0 43 00434  NOP      #158
11526  0 43 00434  BRM      END        LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 159
11527 0 43 00430 0189  REM 3C=P39
11530 0 75 23636  BRM OBJECT START OBJECT TEST
11531 0 66 00001  LDB #77767777
11532 0 36 23437  RSH 1
11533 0 76 23437  STB TEMP
11534 0 72 23512  LDA TEMP
11535 0 43 00460  SKA #00004000 NO,ERROR
11536 0 20 21564  BRM ERROR LOOP IF BP1 SET
11537 0 43 00434  NDP M159
11537 0 43 00434  BRM END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 160
11540 0 43 00430 0190  REM 4C=P40
11541 0 75 23512  BRM OBJECT START OBJECT TEST
11542 0 66 00001  LDB #00004000
11543 0 36 23437  RSH 1
11544 0 76 23437  STB TEMP
11545 0 72 23637  LDA TEMP
11546 0 01 11550  SKA #00002000 OK, SKIP
11547 0 43 00460  BRU #42 NO,ERROR
11550 0 20 21564  BRM ERROR
11551 0 43 00434  NDP M160 LOOP IF BP1 SET
11551 0 43 00434  BRM END

```

```

CPUO  TAP=3.0  01/15  03101  PAGE 161
11552  0 43 00430  R191  REM      4C=P40
11553  0 75 23640  BRM      OBJECT      START OBJECT TEST
11554  0 66 00001  LDB      #77773777
11555  0 36 23437  RSH      1
11556  0 76 23437  STB      TEMP
11557  0 72 23637  LDA      TEMP
11560  0 43 00460  SKA      #00002000  NO,ERROR
11561  0 20 21570  BRM      ERROR
11562  0 43 00434  NSP      M161
BRM      END      LOOP IF BP1 SET

```

```

CPUO  TAP=3.0  01/15  03101  PAGE 162
11563  0 43 00430  R192  REM      6C=P40
11564  0 75 23637  BRM      OBJECT      START OBJECT TEST
11565  0 66 00001  LDB      #00002000
11566  0 36 23437  RSH      1
11567  0 76 23437  STB      TEMP
11570  0 72 23641  LDA      TEMP
11571  0 01 11573  SKA      #00001000
11572  0 43 00460  BRU      #2      OK, SKIP
11573  0 20 21572  BRM      ERROR      NO,ERROR
11574  0 43 00434  NSP      M162
BRM      END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 163
11575 0 43 0C430 0193  REM 6C=P40
11576 0 75 23642  BRM 0BJECT  START OBJECT TEST
11577 0 66 00001  LDB #77775777
11600 0 36 23437  RSH 1
11601 0 76 23437  STB TEMP
11602 0 72 23641  LDA TEMP
11603 0 43 00460  SKA #00001000
11604 0 20 21574  BRM ERROR  NO,ERROR
11605 0 43 00434  NOP M163  LOOP IF BPI SET
          BRM  END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 164
11606 0 43 0C430 0194  REM 6C=P40
11607 0 75 23641  BRM 0BJECT  START OBJECT TEST
11610 0 66 00001  LDB #00001000
11611 0 36 23437  RSH 1
11612 0 76 23437  STB TEMP
11613 0 72 23610  LDA TEMP
11614 0 01 11616  SKA #00000400
11615 0 43 00460  BRU **2  OK, SKIP
11616 0 20 21576  BRM ERROR  NO,ERROR
11617 0 43 0C434  NOP M164  LOOP IF BPI SET
          BRM  END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 165
11620  0 43 00430  0195  REM      6C=P40
11621  0 75 23643  BRM      OBJECT      START OBJECT TEST
11622  0 66 00001  LDB      $77776777
11623  0 36 23437  RSH      1
11624  0 76 23437  STB      TEMP
11625  0 72 23610  LDA      TEMP
11626  0 43 00460  SKA      $00000400
11627  0 20 21602  BRM      ERROR      NO,ERROR
11630  0 43 00434  NBP      M166
BRM      END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 166
11631  0 43 00430  0196  REM      10C=P41
11632  0 75 23610  BRM      OBJECT      START OBJECT TEST
11633  0 66 00001  LDB      $00000400
11634  0 36 23437  RSH      1
11635  0 76 23437  STB      TEMP
11636  0 72 23644  LDA      TEMP
11637  0 01 11641  SKA      $00000200
11640  0 43 00460  BRU      **2
11641  0 20 21602  BRM      ERROR      OK, SKIP
11642  0 43 00434  NBP      M166      NO,ERROR
BRM      END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 167
11643  0 43 00430  0197  REM      10C=P41
11644  0 75 23645  BRM      OBJECT      START OBJECT TEST
11645  0 66 00001  LDB      #77777377
11646  0 36 23437  RSH      1
11647  0 76 23437  STB      TEMP
11650  0 72 23644  LDA      TEMP
11651  0 43 00460  SKA      #00000200
11652  0 20 21605  BRM      ERROR      NO,ERROR
11653  0 43 00434  NBP      M167      LOOP IF BP1 SET
          BRM      END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 168
11654  0 43 00430  0198  REM      12C=P41
11655  0 75 23644  BRM      OBJECT      START OBJECT TEST
11656  0 66 00001  LDB      #00000200
11657  0 36 23437  RSH      1
11660  0 76 23437  STB      TEMP
11661  0 72 23644  LDA      TEMP
11662  0 01 11664  SKA      #00000100
11663  0 43 00460  BRU      ++2      OK, SKIP
11664  0 20 21610  BRM      ERROR      NO,ERROR
11665  0 43 00434  NBP      M168      LOOP IF BP1 SET
          BRM      END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 169
11666 0 43 00430 0199 REM 12C=P41
11667 0 75 23647 BRM OBJECT START OBJECT TEST
11670 0 66 00001 LDB #77777877
11671 0 36 23437 RSH 1
11672 0 76 23437 STB TEMP
11673 0 72 23646 LDA TEMP
11674 0 43 00460 SKA #00000100 NO,ERROR
11675 0 20 21613 BRM ERROR
11676 C 43 00434 BRM #169 LOOP IF BP1 SET
END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 170
11677 0 43 00430 0200 REM 12C=P41
11700 0 75 23646 BRM OBJECT START OBJECT TEST
11701 0 66 00001 LDB #00000100
11702 0 36 23437 RSH 1
11703 0 76 23437 STB TEMP
11704 0 72 23612 LDA TEMP
11705 0 01 11707 SKA #00000040
11706 0 43 00460 BRU ##2 OK, SKIP
11707 0 20 21616 BRM ERROR NO,ERROR
11710 0 43 00434 BRM #170 LOOP IF BP1 SET
END

```

```

CPUO  TAP=3.0  01/15  03101  PAGE 171
11711  0 43 00430  0201  REM      12C=P41
11712  0 75 23650  BRM      00JECT      START OBJECT TEST
11713  0 66 00001  LDB      077777677
11714  0 36 23437  RSH      1
11715  0 76 23437  STB      TEMP
11716  0 72 23412  LDA      TEMP
11717  0 43 00460  SKA      000000040
11720  0 20 21421  BRM      ERROR      NO,ERROR
11721  0 43 00434  NOP      M171
BRM      END      LOOP IF BP1 SET

```

```

CPUO  TAP=3.0  01/15  03101  PAGE 172
11722  0 43 00430  0202  REM      16C=P42
11723  0 75 23612  BRM      00JECT      START OBJECT TEST
11724  0 66 00001  LDB      000000040
11725  0 36 23437  RSH      1
11726  0 76 23437  STB      TEMP
11727  0 72 23651  LDA      TEMP
11730  0 01 11732  SKA      000000020
11731  0 43 00460  BRU      0+2
11732  0 20 21624  BRM      ERROR      BK, SKIP
11733  0 43 00434  NOP      M172      NO,ERROR
BRM      END      LOOP IF BP1 SET

```


CPUO	TAP=3.0	01/15	03101	PAGE 173	
11734	0 43 00430	0203	REM	16C=P42	
11735	0 75 23652		BRM	OBJECT	START OBJECT TEST
11736	0 66 00001		LDB	#77777737	
11737	0 36 23437		RSH	1	
11740	0 76 23437		STB	TEMP	
11741	0 72 23651		LDA	TEMP	
11742	0 43 00460		SKA	#00000020	
11743	0 20 21627		BRM	ERROR	NO,ERROR
11744	0 43 00434		NOP	M173	
			BRM	END	LOOP IF BPI SET

CPUO	TAP=3.0	01/15	03101	PAGE 174	
11745	0 43 00430	0204	REM	16C=P42	
11746	0 75 23651		BRM	OBJECT	START OBJECT TEST
11747	0 66 00001		LDB	#00000020	
11750	0 36 23437		RSH	1	
11751	0 76 23437		STB	TEMP	
11752	0 72 23653		LDA	TEMP	
11753	0 01 11755		SKA	#00000010	
11754	0 43 00460		BRU	**2	OK, SKIP
11755	0 20 21632		BRM	ERROR	NO,ERROR
11756	0 43 00434		NOP	M174	
			BRM	END	LOOP IF BPI SET

CPUO	TAP=3.0	01/15	03101	PAGE 175		
11757	0 43 00430	0205	REM	18C=P42		
11760	0 75 23654		BRM	OBJECT	START OBJECT TEST	
11761	0 66 00001		LDB	#77777757		
11762	0 36 23437		RSH	1		
11763	0 76 23437		STB	TEMP		
11764	0 72 23653		LDA	TEMP		
11765	0 43 00460		SKA	#00000010	NO,ERROR	
11766	0 20 21635		BRM	ERROR		
11767	0 43 00434		NOP	M175	LOOP IF BPI SET	
			BRM	END		

CPUO	TAP=3.0	01/15	03101	PAGE 176		
11770	0 43 00430	0206	REM	30C=P43		
11771	0 75 23653		BRM	OBJECT	START OBJECT TEST	
11772	0 66 00001		LDB	#00000010		
11773	0 36 23437		RSH	1		
11774	0 76 23437		STB	TEMP		
11775	0 72 23454		LDA	TEMP		
11776	0 01 12000		SKA	#00000004	OK, SKIP	
11777	0 43 00460		BRM	++2	NO,ERROR	
12000	0 20 21640		BRM	ERROR		
12001	0 43 00434		NOP	M176	LOOP IF BPI SET	
			BRM	END		

```

CPU0  TAP-3.0  01/15  03101  PAGE 177
12002  0 43 00430  0207  REM      30C=R43
12003  0 75 23655  BRM      OBJECT      START OBJECT TEST
12004  0 66 00001  LDB      #77777767
12005  0 36 23437  RSH      1
12006  0 76 23437  STB      TEMP
12007  0 72 23454  LDA      TEMP
12010  0 43 00460  SKA      #00000004  NO,ERROR
12011  0 20 21643  BRM      ERROR
12012  0 43 00434  NOP      M177      LOOP IF BPI SET
12012  0 43 00434  BRM      END

```

```

CPU0  TAP-3.0  01/15  03101  PAGE 178
12013  0 43 00430  0208  REM      30C=R43
12014  0 75 23454  BRM      OBJECT      START OBJECT TEST
12015  0 66 00001  LDB      #00000004
12016  0 36 23437  RSH      1
12017  0 76 23437  STB      TEMP
12020  0 72 23453  LDA      TEMP
12021  0 01 12023  SKA      #00000002
12022  0 43 00460  BRU      ++2      OK, SKIP
12023  0 20 21646  BRM      ERROR      NO,ERROR
12024  0 43 00434  NOP      M178      LOOP IF BPI SET
12024  0 43 00434  BRM      END

```

CPU0	TAP=3.C	01/15	03101	PAGE 179	
12025	0 43 00430	0209	REM	30VC=P43	
12026	0 75 23513		BRM	OBJECT	START OBJECT TEST
12027	0 66 00001		LDB	#77777773	
12030	0 36 23437		RSH	1	
12031	0 76 23437		STB	TEMP	
12032	0 72 23453		LDA	TEMP	
12033	0 72 23453		SKA	#00000002	
12033	0 43 00460		BRM	ERROR	NO,ERROR
12034	0 20 21651		NOP	M179	
12035	0 43 00434		BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.C	01/15	03101	PAGE 180	
12036	0 43 00430	0210	REM	32C=P43	
12037	0 75 23453		BRM	OBJECT	START OBJECT TEST
12040	0 66 00001		LDB	#00000002	
12041	0 36 23437		RSH	1	
12042	0 76 23437		STB	TEMP	
12042	0 76 23437		LDA	TEMP	
12043	0 72 23452		SKA	#00000001	
12044	0 01 12046		BRU	*+2	OK, SKIP
12045	0 43 00460		BRM	ERROR	NO,ERROR
12046	0 20 21654		NOP	M180	
12047	0 43 00434		BRM	END	LOOP IF BP1 SET

```

CPU0  TAP=3.C  01/15  03101  PAGE 181
12050  0 43 00430  0211  REM      32C=P43
12051  0 75 23656  BRM      OBJECT      START OBJECT TEST
12052  0 66 00001  LDB      #77777775
12053  0 36 23437  RSH      1
12054  0 76 23437  STB      TEMP
12055  0 72 23452  LDA      TEMP
12056  0 43 00460  SKA      #00000001
12057  0 20 21657  BRM      ERROR      NO,ERROR
12060  0 43 00434  BRM      #181
                                LOOP IF BPI SET
                                END

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 182
12061  0 43 00430  0212  REM      20B=P31
12062  0 76 23620  BRM      OBJECT      START OBJECT TEST
12063  0 67 00002  LDA      #67777777
12064  0 72 23466  LSH      2
12065  0 43 00460  SKA      #40000000
12066  0 20 21662  BRM      ERROR      NO,ERROR
12067  0 43 00434  BRM      #182
                                LOOP IF BPI SET
                                END

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 183
12070  0 43 00430  0213  REM 208=P31
12071  0 76 23445  BRM OBJECT START OBJECT TEST
12072  0 67 00002  LDA #10000000
12073  0 72 23466  LSH 2
12074  0 01 12776  SKA #40000000
12075  0 43 00460  BRU #+2 OK, SKIP
12076  0 20 21665  BRM ERROR NO,ERROR
12077  0 43 00434  NOP M183
END LOOP IF BPI SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 184
12100  0 43 00430  0214  REM 208=P31
12101  0 76 23620  BRM OBJECT START OBJECT TEST
12102  0 67 00002  LDA #67777777
12103  0 72 23466  LSH 2
12104  0 43 00460  SKA #40000000
12105  0 20 21670  BRM ERROR NO,ERROR
12106  0 43 00434  NOP M184
END LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 185
12107  0 43 00430  0215  REM      208=P31
12110  0 76 23617  BRM      OBJECT      START OBJECT TEST
12111  0 67 00002  LDA      #04000000
12112  0 72 23615  LSH      2
12113  0 01 12115  SKA      #20000000
12114  0 43 00460  BRU      **2      BK, BKIP
12115  0 20 21673  BRM      ERROR    NO,ERROR
12116  0 43 00434  NOP      M185
12116  0 43 00434  BRM      END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 186
12117  0 43 00430  0216  REM      208=P31
12120  0 76 23622  BRM      OBJECT      START OBJECT TEST
12121  0 67 00002  LDA      #73777777
12122  0 72 23615  LSH      2
12123  0 43 00460  SKA      #20000000
12124  0 20 21676  BRM      ERROR    NO,ERROR
12125  0 43 00434  NOP      M186
12125  0 43 00434  BRM      END      LOOP IF BP1 SET

```

CPU0	TAP=3.0	01/15	03101	PAGE 187	
12126	0 43 00430	0217	REM	208=PS1	
12127	0 76 23621		BRM	OBJECT	START OBJECT TEST
12130	0 67 00002		LDA	#02000000	
12131	0 72 23445		LSH	2	
12132	0 C1 12134		SXA	#10000000	
12133	0 43 00460		BRU	##2	OK, SKIP
12134	0 20 21701		BRM	ERROR	NO,ERROR
12135	0 43 00434		NOP	M187	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.0	01/15	03101	PAGE 188	
12136	0 43 00430	0218	REM	208=PS1	
12137	0 76 23623		BRM	OBJECT	START OBJECT TEST
12140	0 67 00002		LDA	#75777777	
12141	0 72 23445		LSH	2	
12142	0 43 00460		SXA	#10000000	
12143	0 20 21704		BRM	ERROR	NO,ERROR
12144	0 43 00434		NOP	M188	
			BRM	END	LOOP IF BP1 SET


```

CPU0  TAP=3.0  01/15  03101  PAGE 189
12145 0 43 00430 0219  REM 268P31
12146 0 76 23602  BRM OBJECT          START OBJECT TEST
12147 0 67 00002  LDA #01000000
12150 0 72 23617  LSH 2
12151 0 01 12153  SKA #04000000
12152 0 43 00460  BRU *+2          BK, SKIP
12153 0 20 21707  BRM ERROR        NO,ERROR
12154 0 43 00434  NOP M189         LOOP IF BP1 SET
12154 0 43 00434  BRM END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 190
12155 0 43 00430 0220  REM 268P31
12156 0 76 23625  BRM OBJECT          START OBJECT TEST
12157 0 67 00002  LDA #76777777
12160 0 72 23617  LSH 2
12161 0 43 00460  SKA #04000000
12162 0 20 21712  BRM ERROR        NO,ERROR
12163 0 43 00434  BRM M190         LOOP IF BP1 SET
12163 0 43 00434  BRM END

```

CPU0	TAP=3.C	01/15	03101	PAGE 191	
12164	0 43 0C430	0221	REM	138=P32	
12165	0 76 23624		BRM	OBJECT	START OBJECT TEST
12166	0 67 0C002		LDA	#00400000	
12167	0 72 23621		LSH	2	
12170	0 01 12172		SKA	#02000000	
12171	0 43 0C460		BRU	#2	OK, SKIP
12172	0 20 21714		BRM	ERROR	NO,ERROR
12173	0 43 0C434		NOP	M191	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.C	01/15	03101	PAGE 192	
12174	0 43 0C430	0222	REM	138=P32	
12175	0 76 23627		BRM	OBJECT	START OBJECT TEST
12176	0 67 0C002		LDA	#77377777	
12177	0 72 23621		LSH	2	
12200	0 43 0C460		SKA	#02000000	
12201	0 20 21717		BRM	ERROR	NO,ERROR
12202	0 43 0C434		NOP	M192	
			BRM	END	LOOP IF BP1 SET

CPJ0	TAP=3.0	01/15	03101	PAGE 193	
12203	0 43 00430	0223	REM	13B=P32	
12204	0 76 23426		BRM	0BJECT	START OBJECT TEST
12205	0 67 00002		LDA	#00200000	
12206	0 72 23602		LSH	2	
12207	0 01 12211		SKA	#01000000	
12210	0 43 00460		BRU	**2	OK, SKIP
12211	0 20 21722		BRM	ERROR	NO,ERROR
12212	0 43 00434		NBP	M193	
			BRM	END	LOOP IF BP1 SET

CPJ0	TAP=3.0	01/15	03101	PAGE 194	
12213	0 43 00430	0224	REM	13B=P32	
12214	0 76 23430		BRM	0BJECT	START OBJECT TEST
12215	0 67 00002		LDA	#77577777	
12216	0 72 23602		LSH	2	
12217	0 43 00460		SKA	#01000000	
12220	0 20 21725		BRM	ERROR	NO,ERROR
12221	0 43 00434		NBP	M194	
			BRM	END	LOOP IF BP1 SET

```

CPU0  TAP=3.C  01/15  03101  PAGE 195
12222  0 43 00430  *225  REM      168=P32
12223  0 76 23634  BRM      OBJECT      START OBJECT TEST
12224  0 67 00002  LDA      #00010000
12225  0 72 23511  LSH      2
12226  0 01 12230  SKA      #000*0000
12227  0 43 00460  BRU      **2          OK, SKIP
12230  0 20 21730  BRM      ERROR       NO,ERROR
12231  0 43 00434  NOP      M195
12231  0 43 00434  BRM      END         LOOP IF BP1 SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 196
12232  0 43 00430  *226  REM      168=P32
12233  0 76 23631  BRM      OBJECT      START OBJECT TEST
12234  0 67 00002  LDA      #77677777
12235  0 72 23624  LSH      2
12236  0 43 00460  SKA      #00400000
12237  0 20 21733  BRM      ERROR       NO,ERROR
12240  0 43 00434  NOP      M196
12240  0 43 00434  BRM      END         LOOP IF BP1 SET

```

CPU0	TAP=3.C	01/15	03101	PAGE 197	
12241	0 43 00430	#227	REM	78=P32	
12242	0 76 23511		BRM	OBJECT	START OBJECT TEST
12243	0 67 00002		LDA	#00040000	
12244	0 72 23626		LSH	2	
12245	0 01 12247		SKA	#00200000	
12246	0 43 00460		BRU	**2	OK, SKIP
12247	0 20 21736		BRM	ERR0R	NO,ERR0R
12250	0 43 00434		NOP	M197	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.C	01/15	03101	PAGE 198	
12251	0 43 00430	#228	REM	78=P32	
12252	0 76 23633		BRM	OBJECT	START OBJECT TEST
12253	0 67 00002		LDA	#77737777	
12254	0 72 23626		LSH	2	
12255	0 43 00460		SKA	#00200000	
12256	0 20 21740		BRM	ERR0R	NO,ERR0R
12257	0 43 00434		NOP	M198	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP-3.0	01/15	03101	PAGE 199	
12260	0 43 00430	0229	REM	7B=P32	
12261	0 76 23632		BRM	OBJECT	START OBJECT TEST
12262	0 67 00002		LDA	#00020000	
12263	0 72 23604		LSH	2	
12264	0 01 12266		SKA	#00100000	
12265	0 43 00460		BRU	*#2	OK, SKIP
12266	0 20 21742		BRM	ERROR	NO,ERROR
12267	0 43 00434		NOP	M199	
			BRM	END	LOOP IF BPI SET

CPU0	TAP-3.0	01/15	03101	PAGE 200	
12270	0 43 00430	0230	REM	7B=P32	
12271	0 76 23435		BRM	OBJECT	START OBJECT TEST
12272	0 67 00002		LDA	#77757777	
12273	0 72 23604		LSH	2	
12274	0 43 00460		SKA	#00100000	
12275	0 20 21744		BRM	ERROR	NO,ERROR
12276	0 43 00434		NOP	M200	
			BRM	END	LOOP IF BPI SET

```

CPU0  TAP=3.C  01/15  03101  PAGE 201
12277 0 43 00430 0231  REM 108=P32
12300 0 76 23634 BRM OBJECT START OBJECT TEST
12301 0 67 00002 LDA #00010000
12302 0 72 23811 LSH 2
12303 0 01 12305 SKA #00040000
12304 0 43 00460 BRU #42 SK, SKIP
12305 0 20 21746 BRM ERROR NO,ERROR
12306 0 43 00434 NOP M201
BRM END LOOP IF BPI SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 202
12307 0 43 00430 0232  REM 108=P32
12310 0 76 23636 BRM OBJECT START OBJECT TEST
12311 0 67 00002 LDA #77767777
12312 0 72 23811 LSH 2
12313 0 43 00460 SKA #00040000
12314 0 20 21751 BRM ERROR NO,ERROR
12315 0 43 00434 NOP M202
BRM END LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 203
12316 0 43 00430 0233  REM 1B=P32
12317 0 76 23412  BRM OBJECT          START OBJECT TEST
12320 0 67 00002  LDA #00004000
12321 0 72 23432  LSH 2
12322 0 01 12124  SKA #00020000
12323 0 43 00460  BRU #42          OK, SKIP
12324 0 20 21754  BRM ERROR        NO,ERROR
12325 0 43 00434  NOP
12325 0 43 00434  BRM END          LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 204
12326 0 43 00430 0234  REM 1B=P32
12327 0 76 23440  BRM OBJECT          START OBJECT TEST
12330 0 67 00002  LDA #77773777
12331 0 72 23432  LSH 2
12332 0 43 00460  SKA #00020000
12333 0 20 21756  BRM ERROR        NO,ERROR
12334 0 43 00434  NOP
12334 0 43 00434  BRM END          LOOP IF BPI SET

```



```

CPUO  TAP=3.0  01/15  03101  PAGE 205

12335  0 43 00430  8235  REM  18=P32
12336  0 76 23637  BRM  OBJECT  START OBJECT TEST
12337  0 67 00002  LDA  #00002000
12340  0 72 23634  LSH  2
12341  0 01 12343  SKA  #00010000
12342  0 43 00460  BRU  #+2  OK, SKIP
12343  0 20 21760  BRM  ERROR  NO,ERROR
12344  0 43 00434  NOP  M205
BRM  END  LOOP IF BPI SET

```

```

CPUO  TAP=3.0  01/15  03101  PAGE 206

12345  0 43 00430  8236  REM  18=P32
12346  0 76 23642  BRM  OBJECT  START OBJECT TEST
12347  0 67 00002  LDA  #77775777
12350  0 72 23634  LSH  2
12351  0 43 00460  SKA  #00010000
12352  0 20 21762  BRM  ERROR  NO,ERROR
12353  0 43 00434  NOP  M206
BRM  END  LOOP IF BPI SET

```

CPU0 TAP=3.0 01/15 03101 PAGE 207

12354	0	43	00430	0237	REM	9B=P32	
12355	0	76	23441		BRM	OBJECT	START OBJECT TEST
12356	0	67	00002		LDA	#00001000	
12357	0	72	23512		LSH	2	
12360	0	01	12362		SKA	#00004000	OK, SKIP
12361	0	43	00460		BRU	**2	NO, ERROR
12362	0	20	21764		BRM	ERROR	
12363	0	43	00434		NOP	M207	LOOP IF BPI SET
					BRM	END	

CPU0 TAP=3.0 01/15 03101 PAGE 208

12364	0	43	00430	0238	REM	9B=P32	
12365	0	76	23643		BRM	OBJECT	START OBJECT TEST
12366	0	67	00002		LDA	#7776777	
12367	0	72	23512		LSH	2	
12370	0	43	00460		SKA	#00004000	
12371	0	20	21766		BRM	ERROR	NO, ERROR
12372	0	43	00434		NOP	M208	LOOP IF BPI SET
					BRM	END	

```

CPU0  TAP=3.0  01/15  03101  PAGE 209
12373  0 43 00430  0239  REM      4B=P33
12374  0 76 23A10  BRM      OBJECT      START OBJECT TEST
12375  0 67 00002  LDA      #00000400
12376  0 72 23637  LSH      2
12377  0 01 12401  SKA      #00002000
12400  0 43 00460  BRU      **2      OK, SKIP
12401  0 20 21770  BRM      ERROR    NO,ERROR
12402  0 43 00434  NOP      M209
12402  0 43 00434  BRM      END      LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 210
12403  0 43 00430  0240  REM      4B=P33
12404  0 76 23645  BRM      OBJECT      START OBJECT TEST
12405  0 67 00002  LDA      #77777377
12406  0 72 23637  LSH      2
12407  0 43 00460  SKA      #00002000
12410  0 20 21772  BRM      ERROR    NO,ERROR
12411  0 43 00434  NOP      M210
12411  0 43 00434  BRM      END      LOOP IF BPI SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 211
12412  0 43 00430  *241  REM 6B=P33
12413  0 76 23A44  BRM OBJECT          START OBJECT TEST
12414  0 67 00002  LDA #00000200
12415  0 72 23A41  LSH 2
12416  0 C1 12420  SKA #00001000
12417  0 43 00460  BRU ++2           OK, SKIP
12420  0 2C 21774  BRM ERROR        NO,ERROR
12421  0 43 00434  NBP M211
BRM  END          LOOP IF BPI SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 212
12422  0 43 00430  *242  REM 6B=P33
12423  0 76 23A47  BRM OBJECT          START OBJECT TEST
12424  0 67 00A02  LDA #77777577
12425  0 72 23A41  LSH 2
12426  0 43 00460  SKA #00001000
12427  0 2C 21776  BRM ERROR        NO,ERROR
12430  0 43 00434  NBP M212
BRM  END          LOOP IF BPI SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 213
12431  0 43 0C430  0243  REM      68=P33
12432  0 76 23A4A  BRM     OBJECT      START OBJECT TEST
12433  0 67 0C0C2  LDA     #00000100
12434  0 72 23610  LSH     2
12435  0 01 12437  SKA     #00000400
12436  0 43 0C460  BRM     *42      OK, SKIP
12437  0 20 22000  BRM     ERROR    NO,ERROR
12440  0 43 0C434  NBP     #213
BRM     END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 214
12441  0 43 0C430  0244  REM      68=P33
12442  0 76 23A50  BRM     OBJECT      START OBJECT TEST
12443  0 67 0C0C2  LDA     #77777677
12444  0 72 23610  LSH     2
12445  0 43 0C460  SKA     #00000400
12446  0 20 22002  BRM     ERROR    NO,ERROR
12447  0 43 0C434  NBP     #214
BRM     END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 215
12450  0 43 00430  0245  REM 10B=P33
12451  0 76 23412  BRM 0BJECT START OBJECT TEST
12452  0 67 00002  LDA #00000040
12453  0 72 23444  LSH 2
12454  0 01 12456  SKA #00000200
12455  0 43 00460  BRU ++2 OK, SKIP
12456  0 20 22704  BRM ERROR NO,ERROR
12457  0 43 00434  NOP M215
12457  0 43 00434  BRM END LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 216
12460  0 43 00430  0246  REM 10B=P33
12461  0 76 23452  BRM 0BJECT START OBJECT TEST
12462  0 67 00002  LDA #77777737
12463  0 72 23444  LSH 2
12464  0 43 00460  SKA #00000200
12465  0 20 22007  BRM ERROR NO,ERROR
12466  0 43 00434  NOP M216
12466  0 43 00434  BRM END LOOP IF BPI SET

```

```

CPUO  TAP=3.C  01/15  03101  PAGE 217
12467  0 43 0C430  #247  REM 12B=P33
12470  0 76 23651  BRM OBJECT START OBJECT TEST
12471  0 67 0C002  LDA #00000020
12472  0 72 23646  LSH 2
12473  0 01 12475  SKA #00000100
12474  0 43 0C460  BRU **2 OK, SKIP
12475  0 20 22012  BRM ERROR NO,ERROR
12476  0 43 0C434  NOP M217 LOOP IF BP1 SET
12476  0 43 0C434  BRM END

```

```

CPUO  TAP=3.C  01/15  03101  PAGE 218
12477  0 43 0C430  #248  REM 12B=P33
12500  0 76 23654  BRM OBJECT START OBJECT TEST
12501  0 67 0C002  LDA #77777757
12502  0 72 23646  LSH 2
12503  0 43 0C460  SKA #00000100
12504  0 20 22015  BRM ERROR NO,ERROR
12505  0 43 0C434  NOP M218 LOOP IF BP1 SET
12505  0 43 0C434  BRM END

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 219
12506 0 43 00430  *249  REM 128=P33
12507 0 76 23453  BRM 0BJECT START OBJECT TEST
12510 0 67 00002  LDA #00000010
12511 0 72 23412  LSH 2
12512 0 01 12414  SKA #00000040
12513 0 43 00460  BRU **2 OK, SKIP
12514 0 20 22470  BRM ERROR NO,ERROR
12515 0 43 00434  NDP #219
BRM END LOOP IF BPI SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 220
12516 0 43 00430  *250  REM 128=P33
12517 0 76 23455  BRM 0BJECT START OBJECT TEST
12520 0 67 00002  LDA #77777767
12521 0 72 23412  LSH 2
12522 0 43 00460  SKA #00000040
12523 0 20 22470  BRM ERROR NO,ERROR
12524 0 43 00434  NDP #220
BRM END LOOP IF BPI SET

```



```

CPU0  TAP=3.C  01/15  03101  PAGE 221
12525  0 43 00430  0251  REM      16B=P33
12526  0 76 23454  BRM      OBJECT      START OBJECT TEST
12527  0 67 00002  LDA      #00000004
12530  0 72 23451  LSH      2
12531  0 01 12533  SKA      #00000020
12532  0 43 00460  BRU      #+2      BK, SKIP
12533  0 20 22026  BRM      ERROR    NO,ERROR
12534  0 43 00434  NOP      M221
12534  0 43 00434  BRM      END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 222
12535  0 43 00430  #252  REM      16B=P33
12536  0 76 23513  BRM      OBJECT      START OBJECT TEST
12537  0 67 00002  LDA      #77777773
12540  0 72 23451  LSH      2
12541  0 43 00460  SKA      #00000020
12542  0 20 22031  BRM      ERROR    NO,ERROR
12543  0 43 00434  NOP      M222
12543  0 43 00434  BRM      END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 223
12544  0 43 00430  0253  REM      188=P33
12545  0 76 23453  BRM      OBJECT      START OBJECT TEST
12546  0 67 00002  LDA      #00000002
12547  0 72 23A53  LSH      2
12550  0 01 12552  SKA      #00000010
12551  0 43 00460  BRU      ++2      OK, SKIP
12552  0 20 22434  BRM      ERROR    NO,ERROR
12553  0 43 00434  NOP      #223
BRM      END      LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 224
12554  0 43 00430  0254  REM      188=P33
12555  0 76 23456  BRM      OBJECT      START OBJECT TEST
12556  0 67 00102  LDA      #77777775
12557  0 72 23A53  LSH      2
12560  0 43 00460  SKA      #00000010
12561  0 20 22437  BRM      ERROR    NO,ERROR
12562  0 43 00434  NOP      #224
BRM      END      LOOP IF BPI SET

```

CPUC	TAP-3.0	01/15	03101	PAGE 225	
12563	0 43 00430	0255	REM	188#P33	
12564	0 76 23452		BRM	OBJECT	START OBJECT TEST
12565	0 67 00002		LDA	#00000001	
12566	0 72 23454		LSH	2	
12567	0 01 12571		SKA	#Q0000004	
12570	0 43 00460		BRU	**2	OK, SKIP
12571	0 20 22042		BRM	ERROR	NO,ERROR
12572	0 43 00434		NOP	M225	
			BRM	END	LOOP IF BP1 SET

CPUC	TAP-3.0	01/15	03101	PAGE 226	
12573	0 43 00430	0256	REM	188#P33	
12574	0 76 23501		BRM	OBJECT	START OBJECT TEST
12575	0 67 00002		LDA	#77777776	
12576	0 72 23454		LSH	2	
12577	0 43 00460		SKA	#00000004	
12600	0 20 22045		BRM	ERROR	NO,ERROR
12601	0 43 00434		NOP	M226	
			BRM	END	LOOP IF BP1 SET

```

CPU0  TAP=3.0  01/15  03101  PAGE 227
12602  0 43 00430  0257  REM      268-P34
12603  0 75 23466  BRM      OBJECT      START OBJECT TEST
12604  0 76 23447  LDB      $40000000
12605  0 67 00002  LDA      $0
12606  0 72 23453  LSH      2
12607  0 01 12611  SKA      $00000002
12610  0 43 00460  BRU      ++2      OK, SKIP
12611  0 20 22050  BRM      ERROR    NO,ERROR
12612  0 43 00434  NOP      M227
BRM      END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 228
12613  0 43 00430  0258  REM      268-P34
12614  0 75 23470  BRM      OBJECT      START OBJECT TEST
12615  0 76 23460  LDB      $37777777
12616  0 67 00002  LDA      $77777777
12617  0 72 23453  LSH      2
12620  0 43 00460  SKA      $00000002
12621  0 20 22053  BRM      ERROR    NO,ERROR
12622  0 43 00434  NOP      M228
BRM      END      LOOP IF BP1 SET

```

```

CPUO  TAP=3.C  01/15  03101  PAGE 229

12623  0 43 00430  0259  REM  320P34
12624  0 75 23615  BRM  OBJECT  START OBJECT TEST
12625  0 76 23447  LDB  #00000000
12626  0 67 00002  LDA  #0
12627  0 72 23452  LSH  2
12630  0 01 12632  SKA  #00000001
12631  0 43 00460  BRU  ++2  OK, SKIP
12632  0 20 22056  BRM  ERROR  NO,ERROR
12633  0 43 00434  NBP  #229  LOOP IF BP1 SET
BRM  END

```

```

CPUO  TAP=3.C  01/15  03101  PAGE 230

12634  0 43 00430  0260  REM  320P34
12635  0 75 23616  BRM  OBJECT  START OBJECT TEST
12636  0 76 23460  LDB  #57777777
12637  0 67 00002  LDA  #77777777
12640  0 72 23452  LSH  2
12641  0 43 00460  SKA  #00000001
12642  0 20 22061  BRM  ERROR  NO,ERROR
12643  0 43 00434  NBP  #230  LOOP IF BP1 SET
BRM  END

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 231
12644  0 43 00430  0261  REM      20C=P36
12645  0 75 23445  BRM      OBJECT      START OBJECT TEST
12646  0 67 00002  LDB      #10000000
12647  0 36 23437  LSH      2
12650  0 76 23437  STB      TEMP
12651  0 72 23466  LDA      TEMP
12652  0 01 12454  SKA      #40000000
12653  0 43 00460  BRM      **2          BK, SKIP
12654  0 20 22064  BRM      ERROR       NO,ERROR
12655  0 43 00434  NOP      M231       LOOP IF BPI SET
BRM      END

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 232
12656  0 43 00430  0262  REM      20C=P36
12657  0 75 23620  BRM      OBJECT      START OBJECT TEST
12660  0 67 00002  LDB      #67777777
12661  0 36 23437  LSH      2
12662  0 76 23437  STB      TEMP
12663  0 72 23466  LDA      TEMP
12664  0 43 00460  SKA      #40000000
12665  0 20 22067  BRM      ERROR       NO,ERROR
12666  0 43 00434  NOP      M232       LOOP IF BPI SET
BRM      END

```

CPU0	TAP-3.C	01/15	03101	PAGE 233	
12667	0 43 00430	0263	REM	20C=P36	
12670	0 75 23617		BRM	0BJECT	START OBJECT TEST
12671	0 67 00002		LDB	#04000000	
12672	0 36 23437		LSH	2	
12673	0 76 23437		STB	TEMP	
12674	0 72 23415		LDA	TEMP	
12675	0 01 12477		SKA	#20000000	
12676	0 43 00460		BRU	++2	OK, SKIP
12677	0 20 22072		BRM	ERROR	NO,ERROR
12700	0 43 00434		NOP	M233	LOOP IF BPI SET
			BRM	END	

CPU0	TAP-3.C	01/15	03101	PAGE 234	
12701	0 43 00430	0264	REM	20C=P36	
12702	0 75 23622		BRM	0BJECT	START OBJECT TEST
12703	0 67 00002		LDB	#73777777	
12704	0 36 23437		LSH	2	
12705	0 76 23437		STB	TEMP	
12706	0 72 23615		LDA	TEMP	
12707	0 43 00460		SKA	#20000000	
12710	0 20 22075		BRM	ERROR	NO,ERROR
12711	0 43 00434		NOP	M234	LOOP IF BPI SET
			BRM	END	

```

CPU0  TAP=3.0  01/15  03101  PAGE 235
12712 0 43 00430 0265  REM 26C=P36
12713 0 75 23421  BRM OBJECT START OBJECT TEST
12714 0 67 00002  LDB #02000000
12715 0 36 23437  LSH 2
12716 0 76 23437  STB TEMP
12717 0 72 23445  LDA TEMP
12720 0 01 12722  SKA #10000000
12721 0 43 00460  BRU *+2 BK, SKIP
12722 0 20 22100  BRM ERROR NO,ERROR
12723 0 43 00434  NOP M235 LOOP IF BPI SET
12723 0 43 00434  BRM END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 236
12724 0 43 00430 0266  REM 26C=P36
12725 0 75 23623  BRM OBJECT START OBJECT TEST
12726 0 67 00002  LDB #75777777
12727 0 36 23437  LSH 2
12730 0 76 23437  STB TEMP
12731 0 72 23445  LDA TEMP
12732 0 43 00460  SKA #10000000
12733 0 20 22103  BRM ERROR NO,ERROR
12734 0 43 00434  NOP M236 LOOP IF BPI SET
12734 0 43 00434  BRM END

```


CPU0	TAP=3.C	01/15	09101	PAGE 237	
12735	0 43 00430	9267	REM	26C=P36	
12736	0 75 23602		BRM	OBJECT	START OBJECT TEST
12737	0 67 00002		LDB	#01000000	
12740	0 36 23437		LSH	2	
12741	0 76 23437		STB	TEMP	
12742	0 72 23617		LDA	TEMP	
12743	0 01 12745		SKA	#04000000	
12744	0 43 00460		BRU	#+2	OK, SKIP
12745	0 20 22106		BRM	ERROR	NO,ERROR
12746	0 43 00434		NOP	M237	
			BRM	END	LOOP IF BPI SET

CPU0	TAP=3.C	01/15	09101	PAGE 238	
12747	0 43 00430	9268	REM	26C=P36	
12750	0 75 23625		BRM	OBJECT	START OBJECT TEST
12751	0 67 00002		LDB	#76777777	
12752	0 36 23437		LSH	2	
12753	0 76 23437		STB	TEMP	
12754	0 72 23617		LDA	TEMP	
12755	0 43 00460		SKA	#04000000	
12756	0 20 22111		BRM	ERROR	NO,ERROR
12757	0 43 00434		BRM	M238	
			BRM	END	LOOP IF BPI SET

CPU0 TAP=3.0 01/15 03101 PAGE 239

12760	0 43 00430	0269	REM	13C=P37	
12761	0 75 23624		BRM	OBJECT	START OBJECT TEST
12762	0 67 00002		LDB	#00400000	
12763	0 36 23437		LSH	2	
12764	0 76 23437		STB	TEMP	
12764	0 76 23437		LDA	TEMP	
12765	0 72 23621		SKA	#02000000	
12766	0 01 12770		BRU	++2	OK, SKIP
12767	0 43 00460		BRM	ERROR	NO,ERROR
12770	0 20 22114		NBP	M239	
12771	0 43 00434		BRM	END	LOOP IF BP1 SET

CPU0 TAP=3.0 01/15 03101 PAGE 240

12772	0 43 00430	0270	REM	13C=P37	
12773	0 75 23627		BRM	OBJECT	START OBJECT TEST
12774	0 67 00002		LDB	#77377777	
12775	0 36 23437		LSH	2	
12775	0 36 23437		STB	TEMP	
12776	0 76 23437		LDA	TEMP	
12777	0 72 23621		SKA	#02000000	
13000	0 43 00460		BRM	ERROR	NO,ERROR
13001	0 20 22117		NBP	M240	
13002	0 43 00434		BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.0	01/15	03101	PAGE 241	
13003	0 43 00430	0271	REM	15C=P37	
13004	0 75 23626		BRM	OBJECT	START OBJECT TEST
13005	0 67 00002		LDB	#00200000	
13006	0 36 23437		LSH	2	
13007	0 76 23437		STB	TEMP	
13010	0 72 23602		LDA	TEMP	
13011	0 01 13013		SKA	#01000000	
13012	0 43 00460		BRU	**2	OK, SKIP
13013	0 20 22122		BRM	ERROR	NO,ERROR
13014	0 43 00434		NBP	M241	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.0	01/15	03101	PAGE 242	
13015	0 43 00430	0272	REM	15C=P37	
13016	0 75 23630		BRM	OBJECT	START OBJECT TEST
13017	0 67 00002		LDB	#77577777	
13020	0 36 23437		LSH	2	
13021	0 76 23437		STB	TEMP	
13022	0 72 23602		LDA	TEMP	
13023	0 43 00460		SKA	#01000000	
13024	0 20 22125		BRM	ERROR	NO,ERROR
13025	0 43 00434		NBP	M242	
			BRM	END	LOOP IF BP1 SET

```

CPU0  TAP=3.0  01/15  03101  PAGE 243
13026 0 43 00430 0273 REM 15C=P37
13027 0 75 23604 BRM OBJECT START OBJECT TEST
13030 0 67 00002 LDB #00100000
13031 0 36 23437 LSH 2
13032 0 76 23437 STB TEMP
13033 0 72 23624 LDA TEMP
13034 0 01 13036 SKA #00400000
13035 0 43 00460 BRU #+2 OK, SKIP
13036 0 20 22130 BRM ERROR NO,ERROR
13037 0 43 00434 NBP M243
BRM END LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 244
13040 0 43 00430 0274 REM 15C=P37
13041 0 75 23631 BRM OBJECT START OBJECT TEST
13042 0 67 00002 LDB #77677777
13043 0 36 23437 LSH 2
13044 0 76 23437 STB TEMP
13045 0 72 23624 LDA TEMP
13046 0 43 00460 SKA #00400000
13047 0 20 22133 BRM ERROR NO,ERROR
13050 0 43 00434 NBP M244
BRM END LOOP IF BP1 SET

```

CPU0	TAP=3.0	01/15	03101	PAGE 245	
13051	0 43 00430	0275	REM	7C=P38	
13052	0 75 23511		BRM	OBJECT	START OBJECT TEST
13053	0 67 00002		LDB	#00040000	
13054	0 36 23437		LSH	2	
13055	0 76 23437		STB	TEMP	
13056	0 72 23626		LDA	TEMP	
13057	0 01 13061		SKA	#00200000	
13060	0 43 00460		BRU	*+2	OK, SKIP
13061	0 20 22136		BRM	ERROR	NO,ERROR
13062	0 43 00434		NOP	M245	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.0	01/15	03101	PAGE 246	
13063	0 43 00430	0276	REM	7C=P38	
13064	0 75 23633		BRM	OBJECT	START OBJECT TEST
13065	0 67 00002		LDB	#77737777	
13066	0 36 23437		LSH	2	
13067	0 76 23437		STB	TEMP	
13070	0 72 23626		LDA	TEMP	
13071	0 43 00460		SKA	#00200000	
13072	0 20 22140		BRM	ERROR	NO,ERROR
13073	0 43 00434		NOP	M246	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.0	01/15	03101	PAGE 247	
13074	0 43 00430	0277	REM	9C=P38	
13075	0 75 23632		BRM	OBJECT	START OBJECT TEST
13076	0 67 00002		LDB	#00020000	
13077	0 36 23437		LSH	2	
13100	0 76 23437		STB	TEMP	
13101	0 72 23604		LDA	TEMP	
13102	0 01 13104		SKA	#00100000	
13103	0 43 00460		BRU	**2	OK, SKIP
13104	0 20 22142		BRM	ERROR	NO,ERROR
13105	0 43 00434		NBP	M247	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.0	01/15	03101	PAGE 248	
13106	0 43 00430	0278	REM	9C=P38	
13107	0 75 23635		BRM	OBJECT	START OBJECT TEST
13110	0 67 00002		LDB	#77757777	
13111	0 36 23437		LSH	2	
13112	0 36 23437		STB	TEMP	
13113	0 72 23604		LDA	TEMP	
13114	0 43 00460		SKA	#00100000	
13115	0 20 22144		BRM	ERROR	NO,ERROR
13116	0 43 00434		NBP	M248	
			BRM	END	LOOP IF BP1 SET

```

CPU0  TAP=3.0  01/15  03101  PAGE 249
13117  0 43 00430  0279  REM      9C=P38
13120  0 75 23634  BRM     OBJECT      START OBJECT TEST
13121  0 67 00002  LDB     #00010000
13122  0 36 23437  LSH     2
13123  0 76 23437  STB     TEMP
13124  0 72 23634  LDA     TEMP
13125  0 43 00460  SKA     #00010000
13126  0 20 22146  BRM     ERROR      NO,ERROR
13127  0 43 00434  NBP     M249      LOOP IF BPI SET
13127  0 43 00434  BRM     END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 250
13130  0 43 00430  0280  REM      9C=P38
13131  0 75 23636  BRM     OBJECT      START OBJECT TEST
13132  0 67 00002  LDB     #77767777
13133  0 36 23437  LSH     2
13134  0 76 23437  STB     TEMP
13135  0 72 23511  LDA     TEMP
13136  0 43 00460  SKA     #00040000
13137  0 20 22150  BRM     ERROR      NO,ERROR
13140  0 43 00434  NBP     M250      LOOP IF BPI SET
13140  0 43 00434  BRM     END

```

```

CPU0  TAP=3.0      01/15  03101  PAGE 251
13141  0 43 00430  0281  REM      1C=P39
13142  0 75 23512  BRM      OBJECT      START OBJECT TEST
13143  0 67 00002  LDB      #00004000
13144  0 36 23437  LSH      2
13145  0 76 23437  STB      TEMP
13146  0 72 23632  LDA      #00020000
13147  0 01 13151  BRU      #*2
13150  0 43 00460  BRM      ERROR      NO,ERROR
13151  0 20 22152  NOP      M251
13152  0 43 00434  BRM      END        LOOP IF BP1 SET

```

```

CPU0  TAP=3.0      01/15  03101  PAGE 252
13153  0 43 00430  0282  REM      1C=P39
13154  0 75 23640  BRM      OBJECT      START OBJECT TEST
13155  0 67 00002  LDB      #77773777
13156  0 36 23437  LSH      2
13157  0 76 23437  STB      TEMP
13160  0 72 23632  LDA      #00020000
13161  0 43 00460  BRM      ERROR      NO,ERROR
13162  0 20 22154  NOP      M252
13163  0 43 00434  BRM      END        LOOP IF BP1 SET

```



```

CPU0  TAP=3.0  01/15  03101  PAGE 253
13164  0 43 00430  0283  REM      3C=P39
13165  0 75 23437  BRM      OBJECT      START OBJECT TEST
13166  0 67 00002  LDB      #00002000
13167  0 36 23437  LSH      2
13170  0 76 23437  STB      TEMP
13171  0 72 23634  LDA      TEMP
13172  0 01 13174  SKA      #00010000
13173  0 43 00460  BRM      **2          OK, SKIP
13174  0 20 22156  BRM      ERROR      NO,ERROR
13175  0 43 00434  BRM      M253        LOOP IF BP1 SET
13175  0 43 00434  BRM      END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 254
13176  0 43 00430  0284  REM      3C=P39
13177  0 75 23442  BRM      OBJECT      START OBJECT TEST
13200  0 67 00002  LDB      #77775777
13201  0 36 23437  LSH      2
13202  0 76 23437  STB      TEMP
13203  0 72 23634  LDA      TEMP
13204  0 43 00460  SKA      #00010000
13205  0 20 22160  BRM      ERROR      NO,ERROR
13206  0 43 00434  BRM      M254        LOOP IF BP1 SET
13206  0 43 00434  BRM      END

```

CPU0	TAP=3.c	01/15	03101	PAGE 255	
13207	0 43 00430	*285	REM	3C=P39	
13210	0 75 23641		BRM	OBJECT	START OBJECT TEST
13211	0 67 00002		LDB	*00001000	
13212	0 36 23437		LSH	2	
13213	0 76 23437		STB	TEMP	
13214	0 72 23512		LDA	TEMP	
13215	0 01 13217		SKA	*00004000	
13216	0 43 00460		BRU	*42	OK, SKIP
13217	0 20 22162		BRM	ERROR	NO,ERROR
13220	0 43 00434		NBP	*255	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.c	01/15	03101	PAGE 256	
13221	0 43 00430	*286	REM	3C=P39	
13222	0 75 23643		BRM	OBJECT	START OBJECT TEST
13223	0 67 00002		LDB	*77776777	
13224	0 36 23437		LSH	2	
13225	0 76 23437		STB	TEMP	
13226	0 72 23512		LDA	TEMP	
13227	0 43 00460		SKA	*00004000	
13230	0 20 22164		BRM	ERROR	NO,ERROR
13231	0 43 00434		NBP	*256	
			BRM	END	LOOP IF BP1 SET

```

CPU0  TAP-3.0  01/15  03101  PAGE 257
13232 0 43 00430 0287 REM 4C=P40
13233 0 75 23610 BRM OBJECT START OBJECT TEST
13234 0 67 00002 LDB #00000400
13235 0 36 23437 LSH 2
13236 0 76 23437 STB TEMP
13237 0 72 23637 LDA TEMP
13240 0 01 13242 SKA #00002000
13241 0 43 00460 BRU **2 OK, SKIP
13242 0 20 22166 BRM ERROR NO,ERROR
13243 0 43 00434 NOP M257
BRM END LOOP IF BP1 SET

```

```

CPU0  TAP-3.0  01/15  03101  PAGE 258
13244 0 43 00430 0288 REM 4C=P40
13245 0 75 23645 BRM OBJECT START OBJECT TEST
13246 0 67 00002 LDB #77777377
13247 0 36 23437 LSH 2
13250 0 76 23437 STB TEMP
13251 0 72 23637 LDA TEMP
13252 0 43 00460 SKA #00002000 NO,ERROR
13253 0 20 22170 BRM ERROR
13254 0 43 00434 NOP M258
BRM END LOOP IF BP1 SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 259
13255  0 43 00430  0289  REM      6C=P40
13256  0 75 23644  BRM      OBJECT      START OBJECT TEST
13257  0 67 00002  LDB      #00000200
13260  0 36 23437  LSH      2
13261  0 76 23437  STB      TEMP
13262  0 72 23641  LDA      TEMP
13263  0 01 13265  SKA      #00001000
13264  0 43 00460  BRM      #4E      OK, SKIP
13265  0 20 22172  BRM      ERROR    NO,ERROR
13266  0 43 00434  NOP      M259
13266  0 43 00434  BRM      END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 260
13267  0 43 00430  0290  REM      6C=P40
13270  0 75 23647  BRM      OBJECT      START OBJECT TEST
13271  0 67 00002  LDB      #77777577
13272  0 36 23437  LSH      2
13273  0 76 23437  STB      TEMP
13274  0 72 23641  LDA      TEMP
13274  0 72 23641  SKA      #00001000
13275  0 43 00460  BRM      ERROR    NO,ERROR
13276  0 20 22174  NOP      M260
13277  0 43 00434  BRM      END      LOOP IF BP1 SET

```

CPU0	TAP=3.C	01/15	03101	PAGE 261	
13300	0 43 00430	0291	REM	6C=P40	
13301	0 75 23646		BRM	OBJECT	START OBJECT TEST
13302	0 67 00002		LDB	#00000100	
13303	0 36 23437		LSH	2	
13304	0 76 23437		STB	TEMP	
13305	0 72 23610		LDA	TEMP	
13306	0 01 13310		SKA	#00000400	
13307	0 43 00460		BRU	**2	OK, SKIP
13310	0 20 22176		BRM	ERROR	NO,ERROR
13311	0 43 00434		NOP	M261	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.0	01/15	03101	PAGE 262	
13312	0 43 00430	#292	REM	6C=P40	
13313	0 75 23650		BRM	OBJECT	START OBJECT TEST
13314	0 67 00002		LDB	#77777677	
13315	0 36 23437		LSH	2	
13316	0 76 23437		STB	TEMP	
13317	0 72 23610		LDA	TEMP	
13320	0 43 00460		SKA	#00000400	
13321	0 20 22200		BRM	ERROR	NO,ERROR
13322	0 43 00434		NOP	M262	
			BRM	END	LOOP IF BP1 SET

```

CPU0  TAP=3.0  01/15  03101  PAGE 263
13323  0 43 00430  9293  REM      10C=P41
13324  0 75 23612  BRM      0BJECT      START OBJECT TEST
13325  0 67 00002  LDB      #00000040
13326  0 36 23437  LSH      2
13327  0 76 23437  STB      TEMP
13330  0 72 23644  LDA      TEMP
13331  0 01 13333  SKA      #00000200
13332  0 43 00460  BRM      ##E      OK, SKIP
13333  0 20 22202  NBP      M263      NO,ERROR
13334  0 43 00434  BRM      END      LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 264
13335  0 43 00430  9294  REM      10C=P41
13336  0 75 23652  BRM      0BJECT      START OBJECT TEST
13337  0 67 00002  LDB      #77777737
13340  0 36 23437  LSH      2
13341  0 76 23437  STB      TEMP
13342  0 72 23644  LDA      TEMP
13343  0 43 00460  SKA      #00000200
13344  0 20 22205  BRM      ERROR      NO,ERROR
13345  0 43 00434  NBP      M264      LOOP IF BP1 SET
13345  0 43 00434  BRM      END

```

CPU0	TAP=3.0	01/15	03101	PAGE 265	
13346	0 43 00430	0295	REM	12C=P41	
13347	0 75 23651		BRM	OBJECT	START OBJECT TEST
13350	0 67 00002		LDB	#00000020	
13351	0 36 23437		LSH	2	
13352	0 76 23437		STB	TEMP	
13353	0 72 23646		LDA	TEMP	
13354	0 01 13356		SKA	#00000100	
13355	0 43 00460		BRU	++2	OK, SKIP
13356	0 20 22P10		BRM	ERROR	NO,ERROR
13357	0 43 00434		NOP	M265	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.0	01/15	03101	PAGE 266	
13360	0 43 00430	0296	REM	12C=P41	
13361	0 75 23654		BRM	OBJECT	START OBJECT TEST
13362	0 67 00002		LDB	#77777757	
13363	0 36 23437		LSH	2	
13364	0 76 23437		STB	TEMP	
13365	0 72 23646		LDA	TEMP	
13366	0 43 00460		SKA	#00000100	
13367	0 20 22213		BRM	ERROR	NO,ERROR
13370	0 43 00434		NOP	M266	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.0	01/15	03101	PAGE 267	
13371	0 43 00430	0297	REM	12C=P41	
13372	0 75 23653		BRM	OBJECT	START OBJECT TEST
13373	0 67 00002		LDB	#00000010	
13374	0 36 23437		LSH	2	
13375	0 76 23437		STB	TEMP	
13376	0 72 23612		LDA	TEMP	
13377	0 01 13401		SKA	#000000#0	
13400	0 43 00460		BRU	*#2	OK, SKIP
13401	0 20 22216		BRM	ERROR	NO,ERROR
13402	0 43 00434		NBP	*267	
			BRM	END	LOOP IF BP1 SET

CPU0	TAP=3.0	01/15	03101	PAGE 268	
13403	0 43 00430	0298	REM	12C=P41	
13404	0 75 23655		BRM	OBJECT	START OBJECT TEST
13405	0 67 00002		LDB	#77777767	
13406	0 36 23437		LSH	2	
13407	0 76 23437		STB	TEMP	
13410	0 72 23612		LDA	TEMP	
13411	0 43 00460		SKA	#000000#0	
13412	0 20 22221		BRM	ERROR	NO,ERROR
13413	0 43 00434		NBP	*268	
			BRM	END	LOOP IF BP1 SET


```

CPU0  TAP=3.C  01/15  03101  PAGE 269

13414  0 43 00430  0299  REM      16C=P42
13415  0 75 23454  BRM      OBJECT      START OBJECT TEST
13416  0 67 00002  LDB      #00000004
13417  0 36 23437  LSH      2
13420  0 76 23437  STB      TEMP
13421  0 72 23451  LDA      #00000020
13422  0 01 13424  SKA      #*2          OK, SKIP
13423  0 43 00460  BRM      ERROR      NO,ERROR
13424  0 20 22224  NBP      M269
13425  0 43 00434  BRM      END          LOOP IF BP1 SET

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 270

13426  0 43 00430  0300  REM      16C=P42
13427  0 75 23513  BRM      OBJECT      START OBJECT TEST
13430  0 67 00002  LDB      #77777773
13431  0 36 23437  LSH      2
13432  0 76 23437  STB      TEMP
13433  0 72 23451  LDA      #00000020
13434  0 43 00460  SKA      #*2          NO,ERROR
13435  0 20 22227  BRM      ERROR
13436  0 43 00434  NBP      M270
13436  0 43 00434  BRM      END          LOOP IF BP1 SET

```

CPUO	TAP=3.0	01/15	03101	PAGE 271	
13437	0 43 00430	0301	REM	18C=P42	
13440	0 75 23453		BRM	OBJECT	START OBJECT TEST
13441	0 67 00002		LDB	#00000002	
13442	0 36 23437		LSH	2	
13443	0 76 23437		STB	TEMP	
13444	0 72 23453		LDA	TEMP	
13445	0 01 13447		SKA	#00000010	
13446	0 43 00460		BRU	++2	OK, SKIP
13447	0 20 22732		BRM	ERROR	NO,ERROR
13450	0 43 00434		NOP	M271	
			BRM	END	LOOP IF BP1 SET

CPUO	TAP=3.0	01/15	03101	PAGE 272	
13451	0 43 00430	0302	REM	18C=P42	
13452	0 75 23456		BRM	OBJECT	START OBJECT TEST
13453	0 67 00002		LDB	#77777775	
13454	0 36 23437		LSH	2	
13455	0 76 23437		STB	TEMP	
13456	0 72 23453		LDA	TEMP	
13457	0 43 00460		SKA	#00000010	
13460	0 20 22735		BRM	ERROR	NO,ERROR
13461	0 43 00434		NOP	M272	
			BRM	END	LOOP IF BP1 SET

```

CPU0  TAP=3.0  01/15  03101  PAGE 273
13462  0 43 00430  *303  REM      30C=P43
13463  0 75 23452  BRM     OBJECT      START OBJECT TEST
13464  0 67 00002  LDB     #00000001
13465  0 36 23437  LSH     2
13466  0 76 23437  STB     TEMP
13467  0 72 23454  LDA     TEMP
13470  0 01 13472  SKA     #00000004
13471  0 43 00460  BRU     **2          OK, SKIP
13472  0 20 22740  BRM     ERROR       NO,ERROR
13473  0 43 00434  NBP     M273        LOOP IF BP1 SET
13473  0 43 00434  BRM     END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 274
13474  0 43 00430  *304  REM      30C=P43
13475  0 75 23501  BRM     OBJECT      START OBJECT TEST
13476  0 67 00002  LDB     #77777776
13477  0 36 23437  LSH     2
13500  0 76 23437  STB     TEMP
13501  0 72 23454  LDA     TEMP
13502  0 43 00460  SKA     #00000004
13503  0 20 22243  BRM     ERROR       NO,ERROR
13504  0 43 00434  NBP     M274        LOOP IF BP1 SET
13504  0 43 00434  BRM     END

```

```

CPUO  TAP=3.C  01/15  03101  PAGE 275
13505  0 43 00430  0305  REM      30C,27D=P43
13506  0 76 23460  BRM      OBJECT      START OBJECT TEST
13507  0 75 23460  LDA      $77777777
13510  0 67 00002  LDB      $77777777
13511  0 36 23437  LSH      2
13512  0 76 23437  STB     TEMP
13513  0 72 23447  LDA     TEMP
13514  0 43 00460  SKA     $00000000
13515  0 20 22246  BRM     ERROR      NO,ERROR
13516  0 43 00434  NBP     M275      LOOP IF BPI SET
BRM     END

```

```

CPUO  TAP=3.C  01/15  03101  PAGE 276
13517  0 43 00430  0306  REM      32C,25B,31B=P43
13520  0 76 23466  BRM      OBJECT      START OBJECT TEST
13521  0 75 23447  LDA      $40000000
13522  0 67 20002  LDB      $0
13523  0 36 23437  LSH      2
13524  0 76 23437  STB     TEMP
13525  0 72 23453  LDA     TEMP
13526  0 01 13430  SKA     $2
13527  0 43 00460  BRU     $+2
13530  0 20 22252  BRM     ERROR      NO,ERROR
13531  0 43 00434  NBP     M276      LOOP IF BPI SET
BRM     END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 277
13532  0 43 00430  #307  REM      32C,25B,31B=P43
13533  0 76 23470  BRM     OBJECT      START OBJECT TEST
13534  0 75 23460  LDA     #37777777
13535  0 67 20002  LDB     #77777777
13536  0 36 23437  LCY     2
13537  0 76 23437  STB     TEMP
13540  0 72 23453  LDA     TEMP
13541  0 43 00460  SKA     #2
13542  0 20 22757  BRM     ERR9R      NO,ERROR
13543  0 43 00434  NBP     #277
BRM     END          LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 278
13544  0 43 00430  #308  REM      32C,19B,27C=P43
13545  0 76 23415  BRM     OBJECT      START OBJECT TEST
13546  0 75 23447  LDA     #20000000
13547  0 67 20002  LDB     #0
13550  0 36 23437  LCY     2
13551  0 76 23437  STB     TEMP
13552  0 72 23452  LDA     TEMP
13553  0 01 13555  SKA     #1
13554  0 43 00460  BRU     #42      OK, SKIP
13555  0 20 22264  BRM     ERROR     NO,ERROR
13556  0 43 00434  NBP     #278
BRM     END          LOOP IF BPI SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 279
13557  0 43 00430  0309  REM      32C,19B,27C=P43
13560  0 76 23616  BRM      OBJECT      START OBJECT TEST
13561  0 75 23460  LDA      #57777777
13562  0 67 20002  LDB      #77777777
13563  0 36 23437  LCV      2
13564  0 76 23437  STB      TEMP
13565  0 72 23452  LDA      #1
13566  0 43 00460  BRM      ERROR      NO,ERROR
13567  0 20 22271  NOP      #279
13570  0 43 00434  BRM      END        LOOP IF BP1 SET

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 280
13571  0 43 00430  0310  REM      20B,33D,=P31
13572  0 76 23447  BRM      OBJECT      START OBJECT TEST
13573  0 75 23452  LDA      #0
13574  0 66 20001  LDB      #1
13575  0 72 23466  RCV      1
13576  0 01 13400  SKA      #40000000
13577  0 43 00460  BRU      #2      OK, SKIP
13600  0 20 22276  BRM      ERROR      NO,ERROR
13601  0 43 00434  NOP      #280
13601  0 43 00434  BRM      END        LOOP IF BP1 SET

```

```

CPUJ  TAP=3.1  01/15  03101  PAGE 281
13602  0 43 00430  *311  REM      20B,330=P31
13603  0 76 23460  BRM      OBJECT      START OBJECT TEST
13604  0 75 23501  LDA      #7777777
13605  0 66 20001  LDB      #7777776
13606  0 72 23466  RCY      1
13607  0 43 00460  SKA      #40000000
13610  0 20 22302  BRM      ERROR      NO,ERROR
13611  0 43 00434  NBP      M281
BRM      END          LOOP IF BP1 SET

```

```

CPUJ  TAP=3.C  01/15  03101  PAGE 282
13612  0 43 00430  *312  REM      20B=P31,34B=P34
13613  0 76 23415  BRM      OBJECT      START OBJECT TEST
13614  0 67 00001  LDA      #20000000
13615  0 72 23466  LSH      1
13616  0 01 13620  SKA      #40000000
13617  0 43 00460  BRU      **2
13620  0 20 22306  BRM      ERROR      OK, SKIP
13621  0 43 00434  NBP      M282      NO,ERROR
BRM      END          LOOP IF BP1 SET

```

```

CPUC  TAP=3.C  01/15  03101  PAGE 283
13622  0 43 00430  R313  REM  208=P31,348=P34
13623  0 76 23A16  BRM  OBJECT  START OBJECT TEST
13624  0 67 00001  LDA  #57777777
13625  0 72 23466  LSH  1
13626  0 43 00460  SKA  #40000000
13627  0 20 22313  BRM  ERROR  NO,ERROR
13630  0 43 00434  NOP  M283
13631  0 43 00456  BRM  END  LOOP IF BP1 SET
BRM  DONE

```

```

CPUC  TAP=3.C  01/15  03101  PAGE 284
      77764146  * FUNCTION 1 #940 TRAP AND MAP DIAGNOSTIC*
13632  00146  DUMMY EQU  ZER0**
14000  0 43 00424  FUNC1 BSS  DUMMY(AND)3777
14001  0 20 20014  NOP  BRM  FUNCTN
      NBP  FPT1

```



```

* THIS OBJECT TEST ATTEMPTS A RELEADED STA AND SHOULD NOT TRAP
* IF OUT OF BOUNDS TRAP,CHECK RLOF, TRAP, OBA, OB,SFM AND RRL1
* IF READ ONLY TRAP, CHECK ALL ABOVE PLUS PI AND STV
TRAP1 BRM OBJECT START OBJECT TEST
      BRM RETURN SET TRAP RETURN
      NOP T1
      LDA #0
      STA RL1 RL1 CONTENTS
      LDA #0
      STA RL2 RL2 CONTENTS
      ESM 020400
      PST RL1 SET RL1
      ESM 021000
      PST RL2 SET RL2
      STA 003777,4 SHOULD NOT TRAP
      CLA
      BRU **2
      LDA DIVERT T1
      ETR #037777
      SKE #T#3 READ ONLY TRAP ID
      BRU **2 NO, SKIP
      BRM ERROR YES, ERROR
      NOP TM1A
      SKE #T#1 OUT OF BOUNDS TRAP ID
      BRU **2 NO, SKIP
      BRM ERROR YES, ERROR
      NOP TM1B
      BRM END LOOP IF BP1 SET
  
```

```

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM ANY R
* IF NO TRAP, CHECK SFM, STV, RLOF, OB, TRAP, REL, RLC1, RLS1,
* AND RB
* IF OUT OF BOUNDS TRAP, CHECK PI, OBA, AND STV
TRAP2 BRM OBJECT START OBJECT TEST
      BRM RETURN SET TRAP RETURN
      NOP T2
      LDA #077777777
      STA RL1 RL1 CONTENTS
      LDA #077777777
      STA RL2 RL2 CONTENTS
      ESM 020400
      PST RL1 SET RL1
      ESM 021000
      PST RL2 SET RL2
      STA 003777,4 SHOULD READ ONLY TRAP
      CLA
      BRU **2
      LDA DIVERT T2
      ETR #037777
      SKE #0 NO TRAP ID
      BRU **2 NO, SKIP
      BRM ERROR YES, ERROR
      NOP TM2A
      SKE #T#1 OUT OF BOUNDS TRAP ID
      BRU **2 NO, SKIP
      BRM ERROR YES, ERROR
      NOP TM2B
      BRM END LOOP IF BP1 SET
  
```

CPU0 TAP=3.C 01/15 03101 PAGE 287

* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM ANY R
* IF NO TRAP, CHECK 08A, AND 08
* IF READ ONLY TRAP, CHECK 08A, RLOH, RLOO, RLO1, RLO2, RLO3, AND

```
* RRL1
TRAP3 BRM OBJECT START OBJECT TEST
      BRM RETURN SET TRAP RETURN
      NOP T3
      LDA #040404040
      STA RL1 RL1 CONTENTS
      LDA #040404040
      STA RL2 RL2 CONTENTS
      EBM 020400 SET RL1
      PBT RL1
      EBM 021000 SET RL2
      PBT RL2 SHOULD OUT OF BOUND TRAP
      STA 003777,4
      CLA
      BRU **2
      LDA DIVERT
      ETR #037777
      SKE #0 NO TRAP ID
      BRU #*2 NO, SKIP
      BRM ERROR YES, ERROR
      NOP TM3A
      SKE #T43 READ ONLY TRAP ID
      BRU **2 NO, SKIP
      BRM ERROR YES, ERROR
      NOP TM3B
      BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.C 01/15 03101 PAGE 288

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM RO
* IF NO TRAP, CHECK 0E0, RLOF, AND 0FM
* OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

```
TRAP4 BRM OBJECT START OBJECT TEST
      BRM RETURN SET TRAP RETURN
      NOP T4
      LDA #077000000
      STA RL1 RL1 CONTENTS
      LDA #000000000
      STA RL2 RL2 CONTENTS
      EBM 020400 SET RL1
      PBT RL1
      EBM 021000 SET RL2
      PBT RL2 SHOULD READ ONLY TRAP
      STA 003777,4
      CLA
      BRU **2
      LDA DIVERT
      ETR #037777
      SKE #T43 EXPECTED READ ONLY TRAP ID
      BRM ERROR
      NOP TM4
      BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 289

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R1
* IF NO TRAP, CHECK SEL1, RL1F, AND SFM
* OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

14141	0	43	00430	TRAP5	BRM	OBJECT	START OBJECT TEST
14142	0	43	00440		BRM	RETURN	SET TRAP RETURN
14143	0	20	14157		NOP	T5	
14144	0	76	23662		LDA	#000770000	
14145	0	35	00415		STA	RL1	RL1 CONTENTS
14146	0	76	23447		LDA	#000000000	
14147	0	35	00416		STA	RL2	RL2 CONTENTS
14150	0	02	20400		EBM	020400	
14151	0	13	00415		PBT	RL1	SET RL1
14152	0	02	21000		EBM	021000	
14153	0	13	00416		PBT	RL2	SET RL2
14154	4	35	07777		STA	007777,4	SHOULD READ ONLY TRAP
14155	0	46	00001		CLA		
14156	0	01	14160		BRU	**2	
14157	0	76	00450	T5	LDA	DIVERT	
14160	0	14	23506		ETR	#037777	
14161	0	50	23657		SKE	#T43	EXPECTED READ ONLY TRAP ID
14162	0	43	00460		BRM	ERROR	
14163	0	20	22510		NBP	TMS	
14164	0	43	00434		BRM	END	LOOP IF BP1 SET

CPU0 TAP=3.0 01/15 03101 PAGE 290

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R2
* IF NO TRAP, CHECK SEL2, RL2F, AND SFM
* OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

14165	0	43	00430	TRAP6	BRM	OBJECT	START OBJECT TEST
14166	0	43	00440		BRM	RETURN	SET TRAP RETURN
14167	0	20	14203		NOP	T6	
14170	0	76	23663		LDA	#000007700	
14171	0	35	00415		STA	RL1	RL1 CONTENTS
14172	0	76	23447		LDA	#000000000	
14173	0	35	00416		STA	RL2	RL2 CONTENTS
14174	0	02	20400		EBM	020400	
14175	0	13	00415		PBT	RL1	SET RL1
14176	0	02	21000		EBM	021000	
14177	0	13	00416		PBT	RL2	SET RELABELING REGISTER 2
14200	4	35	13777		STA	013777,4	SHOULD READ ONLY TRAP
14201	0	46	00001		CLA		
14202	0	01	14204		BRU	**2	
14203	0	76	00450	T6	LDA	DIVERT	
14204	0	14	23506		ETR	#037777	
14205	0	50	23657		SKE	#T43	EXPECTED READ ONLY TRAP ID
14206	0	43	00460		BRM	ERROR	
14207	0	20	22520		NBP	TMS	
14210	0	43	00434		BRM	END	LOOP IF BP1 SET

CPU0 TAP=3.0 01/15 03101 PAGE 291

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R3
* IF NO TRAP, CHECK SEL3, RL3P, AND SFM
* OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

```
14211 0 43 00430 TRAP7 BRM OBJECT START OBJECT TEST
14212 0 43 00440 BRM RETURN SET TRAP RETRUN
14213 0 20 14227 NOP T7
14214 0 76 23471 LDA #000000077
14215 0 35 00415 STA RL1 RL1 CONTENTS
14216 0 76 23447 LDA #000000000
14217 0 35 00416 STA RL2 RL2 CONTENTS
14220 0 02 20400 EDM 020400
14221 0 13 00415 PBT RL1 SET RL1
14222 0 02 21000 EBM 021000
14223 0 13 00416 PBT RL2 SET RL2
14224 4 35 17777 STA 017777,4 SHOULD READ ONLY TRAP
14225 0 46 00001 CLA
14226 0 01 14230 BRU **2
14227 0 76 00450 T7 LDA DIVERT
14230 0 14 23506 ETR #037777
14231 0 50 23457 SKE #T43 EXPECTED READ ONLY TRAP ID
14232 0 43 00460 BRM ERROR
14233 0 20 22530 NOP TMB
14234 0 43 00434 BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 292

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R4
* IF NO TRAP, CHECK SEL4, RL4P, RL62, AND SFM
* OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

```
14235 0 43 00430 TRAP8 BRM OBJECT START OBJECT TEST
14236 0 43 00440 BRM RETURN SET TRAP RETURN
14237 0 20 14253 NOP T8
14240 0 76 23447 LDA #000000000
14241 0 35 00415 STA RL1 RL1 CONTENTS
14242 0 76 23461 LDA #077000000
14243 0 35 00416 STA RL2 RL2 CONTENTS
14244 0 02 20400 EDM 020400
14245 0 13 00415 PBT RL1 SET RL1
14246 0 02 21000 EBM 021000
14247 0 13 00416 PBT RL2 SET RL2
14250 4 35 23777 STA 023777,4 SHOULD READ ONLY TRAP
14251 0 46 00001 CLA
14252 0 01 14254 BRU **2
14253 0 76 00450 T8 LDA DIVERT
14254 0 14 23506 ETR #037777
14255 0 50 23457 SKE #T43 EXPECTED READ ONLY TRAP ID
14256 0 43 00460 BRM ERROR
14257 0 20 22530 NOP TMB
14260 0 43 00434 BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 293

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R5
* IF NO TRAP, CHECK SEL5, RL5F, AND SFM
* OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
14261 0 43 00430 TRAP9 BRM OBJECT START OBJECT TEST
14262 0 43 00440 BRM RETURN SET TRAP RETURN
14263 0 20 14277 NOP T9
14264 0 76 23447 LDA #000000000
14265 0 35 00415 STA RL1 RL1 CONTENTS
14266 0 76 23662 LDA #000770000
14267 0 35 00416 STA RL2 RL2 CONTENTS
14270 0 02 20400 EBM 020400
14271 0 13 00415 PBT RL1 SET RL1
14272 0 02 21000 EBM 021000
14273 0 13 00416 PBT RL2 SET RL2
14274 4 35 27777 STA 027777,4 SHOULD READ ONLY TRAP
14275 0 46 00001 CLA
14276 0 01 14300 BRU **2
14277 0 76 00450 T9 LDA DIVERT
14300 0 14 23506 ETR #037777
14301 0 50 23657 SKE #T43 EXPECTED READ ONLY TRAP ID
14302 0 43 00460 BRM ERROR
14303 0 20 22564 NOP TMS
14304 0 43 00434 BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 294

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP FROM R6
* IF NO TRAP, CHECK SEL6, RL6F, AND SFM
* OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
14305 0 43 00430 TRAP10 BRM OBJECT START OBJECT TEST
14306 0 43 00440 BRM RETURN SET TRAP RETURN
14307 0 20 14323 NOP T10
14310 0 76 23447 LDA #000000000
14311 0 35 00415 STA RL1 RL1 CONTENTS
14312 0 76 23663 LDA #000007700
14313 0 35 00416 STA RL2 RL2 CONTENTS
14314 0 02 20400 EBM 020400
14315 0 13 00415 PBT RL1 SET RL1
14316 0 02 21000 EBM 021000
14317 0 13 00416 PBT RL2 SET RL2
14320 4 35 33777 STA 033777,4 SHOULD READ ONLY TRAP
14321 0 46 00001 CLA
14322 0 01 14324 BRU **2
14323 0 76 00450 T10 LDA DIVERT
14324 0 14 23506 ETR #037777
14325 0 50 23657 SKE #T43 EXPECTED READ ONLY TRAP ID
14326 0 43 00460 BRM ERROR
14327 0 20 22564 NOP TMS
14330 0 43 00434 BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 295

* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R7
* IF NO TRAP, CHECK SEL7, RL7, AND SPM
* OUT OF BOUNDS TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

14331	0	43	00430	TRAP11	BRM	OBJECT	START OBJECT TEST
14332	0	43	00440		BRM	RETURN	SET TRAP RETURN
14333	0	20	14347		NOP	T11	
14334	0	76	23447		LDA	#00000000	
14335	0	35	00415		STA	RL1	RL1 CONTENTS
14336	0	76	23471		LDA	#00000077	
14337	0	35	00416		STA	RL2	RL2 CONTENTS
14340	0	02	20400		EDM	020400	
14341	0	13	00415		PBT	RL1	SET RL1
14342	0	02	21000		EDM	021000	
14343	0	13	00416		PBT	RL2	SET RL2
14344	4	35	37777		STA	03777,4	SHOULD OUT OF BOUNDS TRAP
14345	0	46	00001		CLA		
14346	0	01	14350		BRU	**2	
14347	0	76	00450	T11	LDA	DIVERT	
14350	0	14	23506		ETR	#037777	
14351	0	50	23657		SKE	#T43	EXPECTED READ ONLY TRAP ID
14352	0	43	00460		BRM	ERROR	
14353	0	20	22574		NOP	TM11	
14354	0	43	00434		BRM	END	LOOP IF BP1 SET

CPU0 TAP=3.0 01/15 03101 PAGE 296

* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R0
* IF READ ONLY TRAP, CHECK RLOH, RLO0, RLO1, RLO2, RLO3, AND 08A
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

14355	0	43	00430	TRAP12	BRM	OBJECT	START OBJECT TEST
14356	0	43	00440		BRM	RETURN	SET TRAP RETURN
14357	0	20	14373		NOP	T12	
14360	0	76	23466		LDA	#04000000	
14361	0	35	00415		STA	RL1	RL1 CONTENTS
14362	0	76	23447		LDA	#00000000	
14363	0	35	00416		STA	RL2	RL2 CONTENTS
14364	0	02	20400		EDM	020400	
14365	0	13	00415		PBT	RL1	SET RL1
14366	0	02	21000		EDM	021000	
14367	0	13	00416		PBT	RL2	SET RL2
14370	4	35	03777		STA	00377,4	SHOULD OUT OF BOUNDS TRAP
14371	0	46	00001		CLA		
14372	0	01	14374		BRU	**2	
14373	0	76	00450	T12	LDA	DIVERT	
14374	0	14	23506		ETR	#037777	
14375	0	50	23660		SKE	#T41	EXPECTED OUT OF BOUNDS TRAP ID
14376	0	43	00460		BRM	ERROR	
14377	0	20	22604		NOP	TM12	
14400	0	43	00434		BRM	END	LOOP IF BP1 SET

CPU0 TAP=3.C 01/15 03101 PAGE 297

```
* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R1
* IF READ ONLY TRAP, CHECK RL1H, RL10, RL11, RL12, RL13, AND 0BA
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP13 BRM OBJECT START OBJECT TEST
          BRM RETURN SET TRAP RETURN
          NOP T13
          LDA #000400000
          STA RL1 RL1 CONTENTS
          LDA #000000000
          STA RL2 RL2 CONTENTS
          EOM 020400
          PBT RL1 SET RL1
          EOM 021000
          PBT RL2 SET RL2
          STA 007777,4 SHOULD OUT OF BOUNDS TRAP
          CLA
          BRU **2
          LDA DIVERT
          ETR #037777
          SKE #T41 EXPECTED OUT OF BOUNDS TRAP ID
          BRM ERROR
          NOP TM13
          BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.C 01/15 03101 PAGE 298

```
* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R2
* IF READ ONLY TRAP, CHECK RL2H, RL20, RL21, RL22, RL23, AND 0BA
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP14 BRM OBJECT START OBJECT TEST
          BRM RETURN SET TRAP RETURN
          NOP T14
          LDA #000004000
          STA RL1 RL1 CONTENTS
          LDA #000000000
          STA RL2 RL2 CONTENTS
          EOM 020400
          PBT RL1 SET RL1
          EOM 021000
          PBT RL2 SET RL2
          STA 013777,4 SHOULD OUT OF BOUNDS TRAP
          CLA
          BRU **2
          LDA DIVERT
          ETR #037777
          SKE #T41 EXPECTED OUT OF BOUNDS TRAP ID
          BRM ERROR
          NOP TM14
          BRM END LOOP IF BP1 SET
```

CPU0 TAP-3.0 01/15 03101 PAGE 299

* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R3
* IF READ ONLY TRAP, CHECK RL30, RL31, RL32, RL33, AND 88A
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

14451	0	43	00430	TRAP15	BRM	OBJECT	START OBJECT TEST
14452	0	43	00440		BRM	RETURN	SET TRAP RETURN
14453	0	20	14467		NBP	T15	
14454	0	76	23612		LDA	#000000040	
14455	0	35	00415		STA	RL1	RL1 CONTENTS
14456	0	76	23447		LDA	#000000000	
14457	0	35	00416		STA	RL2	RL2 CONTENTS
14460	0	02	20400		EBM	020400	
14461	0	13	00415		PBT	RL1	SET RL1
14462	0	02	21000		EBM	021000	
14463	0	13	00416		PBT	RL2	SET RL2
14464	4	35	17777		STA	017777,4	SHOULD OUT OF BOUNDS TRAP
14465	0	46	00001		CLA		
14466	0	01	14470		BRU	**2	
14467	0	76	00450	T15	LDA	DIVERT	
14470	0	14	23506		ETR	#037777	
14471	0	50	23660		SKE	#T41	EXPECTED OUT OF BOUNDS TRAP ID
14472	0	43	00460		BRM	ERROR	
14473	0	20	22650		NBP	TM15	
14474	0	43	00434		BRM	END	LOOP IF BP1 SET

CPU0 TAP-3.0 01/15 03101 PAGE 300

* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R4
* IF READ ONLY TRAP, CHECK RL40, RL41, RL42, RL43, RRL2 AND
* 88A
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

14475	0	43	00430	TRAP16	BRM	OBJECT	START OBJECT TEST
14476	0	43	00440		BRM	RETURN	SET TRAP RETURN
14477	0	20	14513		NBP	T16	
14500	0	76	23447		LDA	#000000000	
14501	0	35	00415		STA	RL1	RL1 CONTENTS
14502	0	76	23466		LDA	#040000000	
14503	0	35	00416		STA	RL2	RL2 CONTENTS
14504	0	02	20400		EBM	020400	
14505	0	13	00415		PBT	RL1	SET RL1
14506	0	02	21000		EBM	021000	
14507	0	13	00416		PBT	RL2	SET RL2
14510	4	35	23777		STA	023777,4	SHOULD OUT OF BOUNDS TRAP
14511	0	46	00001		CLA		
14512	0	01	14514		BRU	**2	
14513	0	76	00450	T16	LDA	DIVERT	
14514	0	14	23506		ETR	#037777	
14515	0	50	23660		SKE	#T41	EXPECTED OUT OF BOUNDS TRAP ID
14516	0	43	00460		BRM	ERROR	
14517	0	20	22664		NBP	TM16	
14520	0	43	00434		BRM	END	LOOP IF BP1 SET

CP00 TAP-3.0 01/15 03101 PAGE 301

* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R5
* IF READ ONLY TRAP, CHECK RL6H, RL50, RL51, RL62, RL53, AND 08A
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

14521	0	43	00430	TRAP17	BRM	OBJECT	START OBJECT TEST
14522	0	43	00440		BRM	RETURN	SET TRAP RETURN
14523	0	20	14537		NOP	T17	
14524	0	76	23447		LDA	#000000000	
14525	0	35	00415		STA	RL1	RL1 CONTENTS
14526	0	76	23624		LDA	#000400000	
14527	0	35	00416		STA	RL2	RL2 CONTENTS
14530	0	02	20400		EDM	020400	
14531	0	13	00415		POT	RL1	SET RL1
14532	0	02	21000		EDM	021000	
14533	0	13	00416		POT	RL2	SET RL2
14534	4	35	27777,4		STA	027777,4	SHOULD OUT OF BOUNDS TRAP
14535	0	46	00001		CLA		
14536	0	01	14540		BRU	**2	
14537	0	76	00450	T17	LDA	DIVERT	
14540	0	14	23506		ETR	#037777	
14541	0	50	23660		SKE	#T41	EXPECTED OUT OF BOUNDS TRAP ID
14542	0	43	00460		BRM	ERROR	
14543	0	20	22700		NOP	TM17	
14544	0	43	00434		BRM	END	LOOP IF BP1 SET

CP00 TAP-3.0 01/15 03101 PAGE 302

* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R6
* IF READ ONLY TRAP, CHECK RL6H, RL60, RL61, RL62, RL63, AND 08A
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

14545	0	43	00430	TRAP18	BRM	OBJECT	START OBJECT TEST
14546	0	43	00440		BRM	RETURN	SET TRAP RETURN
14547	0	20	14563		NOP	T18	
14550	0	76	23447		LDA	#000000000	
14551	0	35	00415		STA	RL1	RL1 CONTENTS
14552	0	76	23512		LDA	#000004000	
14553	0	35	00416		STA	RL2	RL2 CONTENTS
14554	0	02	20400		EDM	020400	
14555	0	13	00415		POT	RL1	SET RL1
14556	0	02	21000		EDM	021000	
14557	0	13	00416		POT	RL2	SET RL2
14560	4	35	33777		STA	033777,4	SHOULD OUT OF BOUNDS TRAP
14561	0	46	00001		CLA		
14562	0	01	14564		BRU	**2	
14563	0	76	00450	T18	LDA	DIVERT	
14564	0	14	23506		ETR	#037777	
14565	0	50	23660		SKE	#T41	EXPECTED OUT OF BOUNDS TRAP ID
14566	0	43	00460		BRM	ERROR	
14567	0	20	22714		NOP	TM18	
14570	0	43	00434		BRM	END	LOOP IF BP1 SET

CPU0 TAP=3.0 01/15 03101 PAGE 303

* THIS OBJECT TEST ATTEMPTS AN OUT OF BOUNDS TRAP FROM R7
* IF READ ONLY TRAP, CHECK RL7H, RL70, RL71, RL72, RL73, AND 88A
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

```
TRAP19 BRM OBJECT START OBJECT TEST
14571 0 43 00430 BRM RETURN SET TRAP RETURN
14572 0 43 00440 BRM RETURN SET TRAP RETURN
14573 0 20 14607 NBP T19
14574 0 76 23447 LDA #000000000
14575 0 35 00415 STA RL1 RL1 CONTENTS
14576 0 76 23612 LDA #000000040 RL2 CONTENTS
14577 0 35 00416 STA RL2
14600 0 02 20400 EDM 020400
14601 0 13 00415 PBT RL1 SET RL1
14602 0 02 21000 EDM 021000
14603 0 13 00416 PBT RL2 SET RL2
14604 4 35 37777 STA 037777,4 SHOULD OUT OF BOUNDS TRAP
14605 0 46 00001 CLA
14606 0 01 14610 BRU **2
14607 0 76 00450 T19 LDA DIVERT
14610 0 14 23506 ETR #037777
14611 0 50 23660 SKE #T41 EXPECTED OUT OF BOUNDS TRAP ID
14612 0 43 00460 BRM ERROR
14613 0 20 22730 NBP TM19
14614 0 43 00434 BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 304

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL03
* IF OUT OF BOUNDS TRAP, CHECK RL03 AND S31
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

```
TRAP20 BRM OBJECT START OBJECT TEST
14615 0 43 00430 BRM RETURN SET TRAP RETURN
14616 0 43 00440 BRM RETURN SET TRAP RETURN
14617 0 20 14633 NBP T20
14620 0 76 23664 LDA #041000000
14621 0 35 00415 STA RL1 RL1 CONTENTS
14622 0 76 23447 LDA #000000000 RL2 CONTENTS
14623 0 35 00416 STA RL2
14624 0 02 20400 EDM 020400
14625 0 13 00415 PBT RL1 SET RL1
14626 0 02 21000 EDM 021000
14627 0 13 00416 PBT RL2 SET RL2
14630 4 35 03777 STA 003777,4 SHOULD READ ONLY TRAP
14631 0 46 00001 CLA
14632 0 01 14634 BRU **2
14633 0 76 00450 T20 LDA DIVERT
14634 0 14 23506 ETR #037777
14635 0 50 23657 SKE #T43 EXPECTED READ ONLY TRAP ID
14636 0 43 00460 BRM ERROR
14637 0 20 22744 NBP TM20
14640 0 43 00434 BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.C 01/15 03101 PAGE 305

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RLO2
* IF OUT OF BOUNDS TRAP, CHECK RLO2 AND LS2A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP21 BRM OBJECT START OBJECT TEST
BRM RETURN SET TRAP RETURN
NOP T21
LDA #042000000 RL1 RL1 CONTENTS
STA RL1
LDA #000000000 RL2 RL2 CONTENTS
STA RL2
EDM 020400 SET RL1
POT RL1
EDM 021000 SET RL2
POT RL2
STA 003777,4 SHOULD READ ONLY TRAP
CLA
BRU **2
LDA DIVERT
ETR #037777 EXPECTED READ ONLY TRAP ID
SKE #T43
BRM ERROR
NOP TM21
BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.C 01/15 03101 PAGE 306

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RLO1
* IF OUT OF BOUNDS TRAP, CHECK RLO1 AND LS1A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP22 BRM OBJECT START OBJECT TEST
BRM RETURN SET TRAP RETURN
NOP T22
LDA #044000000 RL1 RL1 CONTENTS
STA RL1
LDA #000000000 RL2 RL2 CONTENTS
STA RL2
EDM 020400 SET RL1
POT RL1
EDM 021000 SET RL2
POT RL2
STA 003777,4 SHOULD READ ONLY TRAP
CLA
BRU **2
LDA DIVERT
ETR #037777 EXPECTED READ ONLY TRAP ID
SKE #T43
BRM ERROR
NOP TM22
BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.C 01/15 03101 PAGE 307

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RLOO
* IF OUT OF BOUNDS TRAP, CHECK RLOO AND LSOA1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

14711	0	43	00430	TRAP23	BRM	OBJECT	START OBJECT TEST
14712	0	43	00440		BRM	RETURN	SET TRAP RETURN
14713	0	20	14727		NOP	T23	
14714	0	76	23667		LDA	#050000000	
14715	0	35	00415		STA	RL1	RL1 CONTENTS
14716	0	76	23447		LDA	#000000000	
14717	0	35	00416		STA	RL2	RL2 CONTENTS
14720	0	02	20400		EBM	020400	
14721	0	13	00415		PBT	RL1	SET RL1
14722	0	02	21000		EBM	021000	
14723	0	13	00416		PBT	RL2	SET RL2
14724	4	35	03777		STA	03777,4	SHOULD READ ONLY TRAP
14725	0	46	00001		CLA		
14726	0	01	14730		BRU	**2	
14727	0	76	00450	T23	LDA	DIVERT	
14730	0	14	23506		ETR	#037777	
14731	0	50	23657		SKE	#T43	EXPECTED READ ONLY TRAP ID
14732	0	43	00460		BRM	ERRBR	
14733	0	20	22763		NOP	TM23	
14734	0	43	00434		BRM	END	LOOP IF BP1 SET

CPU0 TAP=3.C 01/15 03101 PAGE 308

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RLOH
* IF OUT OF BOUNDS TRAP, CHECK RLOH AND LSOA1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

14735	0	43	00430	TRAP24	BRM	OBJECT	START OBJECT TEST
14736	0	43	00440		BRM	RETURN	SET TRAP RETURN
14737	0	20	14753		NOP	T24	
14740	0	76	23600		LDA	#060000000	
14741	0	35	00415		STA	RL1	RL1 CONTENTS
14742	0	76	23447		LDA	#000000000	
14743	0	35	00416		STA	RL2	RL2 CONTENTS
14744	0	02	20400		EBM	020400	
14745	0	13	00415		PBT	RL1	SET RL1
14746	0	02	21000		EBM	021000	
14747	0	13	00416		PBT	RL2	SET RL2
14750	4	35	03777		STA	003777,4	SHOULD READ ONLY TRAP
14751	0	46	00001		CLA		
14752	0	01	14754		BRU	**2	
14753	0	76	00450	T24	LDA	DIVERT	
14754	0	14	23506		ETR	#037777	
14755	0	50	23657		SKE	#T43	EXPECTED READ ONLY TRAP ID
14756	0	43	00460		BRM	ERRBR	
14757	0	20	22770		NOP	TM24	
14760	0	43	00434		BRM	END	LOOP IF BP1 SET

CPU0 TAP=3.C 01/15 03101 PAGE 309

```

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL13
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP25 BRM OBJECT START OBJECT TEST
        BRM RETURN SET TRAP RETURN
        NOP T25
        LDA #000410000
        STA RL1 RL1 CONTENTS
        LDA #000000000
        STA RL2 RL2 CONTENTS
        EBM 020400
        PBT RL1 SET RL1
        EBM 021000
        PBT RL2 SET RL2
        STA 007777,4 SHOULD READ ONLY TRAP
        CLA
        BRU **2
        LDA T25 DIVERT
        ETR #037777
        SKE #T43 EXPECTED READ ONLY TRAP ID
        BRM ERROR
        NOP TM25
        BRM END LOOP IF BP1 SET

```

CPU0 TAP=3.C 01/15 03101 PAGE 310

```

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL12
* IF OUT OF BOUNDS TRAP, CHECK RL12 AND LS2A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP26 BRM OBJECT
        BRM RETURN SET TRAP RETURN
        NOP T26
        LDA #000420000
        STA RL1 RL1 CONTENTS
        LDA #000000000
        STA RL2 RL2 CONTENTS
        EBM 020400
        PBT RL1 SET RL1
        EBM 021000
        PBT RL2 SET RL2
        STA 007777,4 SHOULD READ ONLY TRAP
        CLA
        BRU **2
        LDA T26 DIVERT
        ETR #037777
        SKE #T43 EXPECTED READ ONLY TRAP ID
        BRM ERROR
        NOP TM26
        BRM END LOOP IF BP1 SET

```

CPU0 TAP=3.C 01/15 03101 PAGE 311

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL11
* IF OUT OF BOUNDS TRAP, CHECK RL11 AND LS1A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP27 BRM OBJECT START OBJECT TEST
BRM RETURN SET TRAP RETURN
NOP T27
LDA #000440000
STA RL1 RL1 CONTENTS
LDA #000000000
STA RL2 RL2 CONTENTS
EDM 020400
POT RL1 SET RL1
EDM 021000
POT RL2 SET RL2
* 35 07777 STA 007777,4 SHOULD READ ONLY TRAP
CLA
BRU **2
LDA T27 DIVERT
ETR #037777
SKE #T43 EXPECTED READ ONLY TRAP ID
BRM ERROR
NOP TM27
BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.C 01/15 03101 PAGE 312

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL10
* IF OUT OF BOUNDS TRAP, CHECK RL10 AND LS0A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP28 BRM OBJECT START OBJECT TEST
BRM RETURN SET TRAP RETURN
NOP T28
LDA #000500000
STA RL1 RL1 CONTENTS
LDA #000000000
STA RL2 RL2 CONTENTS
EDM 020400
POT RL1 SET RL1
EDM 021000
POT RL2 SET RL2
* 35 07777 STA 007777,4 SHOULD READ ONLY TRAP
CLA
BRU **2
LDA T28 DIVERT
ETR #037777
SKE #T43 EXPECTED READ ONLY TRAP ID
BRM ERROR
NOP TM28
BRM END LOOP IF BP1 SET
```

CPUD TAP=3.C 01/15 03101 PAGE 313

* THIS OBJECT ATTEMPTS A READ TRAP DEPENDENT ON RL1H
* IF OUT OF BOUNDS TRAP, CHECK RL1H AND L800A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

15101	0	43	00430	TRAP29	BRM	OBJECT	START OBJECT TEST
15102	0	43	00440		BRM	RETURN	SET TRAP RETURN
15103	0	20	15117		NOP	T29	
15104	0	76	23603		LDA	#000600000	
15105	0	35	00415		STA	RL1	RL1 CONTENTS
15106	0	76	23447		LDA	#000000000	
15107	0	35	00416		STA	RL2	RL2 CONTENTS
15110	0	02	20400		EDM	020400	
15111	0	13	00415		PBT	RL1	SET RL1
15112	0	02	21000		EDM	021000	
15113	0	13	00416		PBT	RL2	SET RL2
15114	4	35	07777		STA	007777,4	SHOULD READ ONLY TRAP
15115	0	46	00001		CLA		
15116	0	01	15120		BRU	**2	
15117	0	76	00450	T29	LDA	DIVERT	
15120	0	14	23506		ETR	#037777	
15121	0	50	23657		SKE	#T43	EXPECTED READ ONLY TRAP ID
15122	0	43	00460		BRM	ERROR	
15123	0	20	23024		NOP	TM29	
15124	0	43	00434		BRM	END	LOOP IF BP1 SET

CPUD TAP=3.C 01/15 03101 PAGE 314

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL23
* IF OUT OF BOUNDS TRAP, CHECK RL23 AND S31
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

15125	0	43	00430	TRAP30	BRM	OBJECT	START OBJECT TEST
15126	0	43	00440		BRM	RETURN	SET TRAP RETURN
15127	0	20	15143		NOP	T30	
15130	0	76	23674		LDA	#00000*100	
15131	0	35	00415		STA	RL1	RL1 CONTENTS
15132	0	76	23447		LDA	#000000000	
15133	0	35	00416		STA	RL2	RL2 CONTENTS
15134	0	02	20400		EDM	020400	
15135	0	13	00415		PBT	RL1	SET RL1
15136	0	02	21000		EDM	021000	
15137	0	13	00416		PBT	RL2	SET RL2
15140	4	35	13777		STA	013777,4	SHOULD READ ONLY TRAP
15141	0	46	00001		CLA		
15142	0	01	15144		BRU	**2	
15143	0	76	00450	T30	LDA	DIVERT	
15144	0	14	23506		ETR	#037777	
15145	0	50	23657		SKE	#T43	EXPECTED READ ONLY TRAP ID
15146	0	43	00460		BRM	ERROR	
15147	0	20	23031		NOP	TM30	
15150	0	43	00434		BRM	END	LOOP IF BP1 SET

CPUC TAP=3.C 01/15 03101 PAGE 315

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL22
* IF OUT OF BOUNDS TRAP, CHECK RL22 AND LS2A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

```
TRAP31 BRM OBJECT START OBJECT TEST
15151 0 43 00430 BRM RETURN SET TRAP RETURN
15152 0 43 00440 BRM RETURN SET TRAP RETURN
15153 0 20 15167 NOP T31
15154 0 76 23675 LDA #000004200
15155 0 35 00415 STA RL1 RL1 CONTENTS
15156 0 76 23447 LDA #000000000
15157 0 35 00416 STA RL2 RL2 CONTENTS
15160 0 02 20400 EBM 020400
15161 0 13 00415 PBT RL1 SET RL1
15162 0 02 21000 EBM 021000
15163 0 13 00416 PBT RL2 SET RL2
15164 4 35 13777 STA 013777,4 SHOULD READ ONLY TRAP
15165 0 46 00001 CLA
15166 0 01 15170 BRU **2
15167 0 76 00450 T31 LDA DIVERT
15170 0 14 23506 ETR #037777
15171 0 50 23657 SKE #T43 EXPECTED READ ONLY TRAP ID
15172 0 43 00460 BRM ERROR
15173 0 20 23036 NOP TM31
15174 0 43 00434 BRM END LOOP IF BP1 SET
```

CPUC TAP=3.C 01/15 03101 PAGE 316

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL21
* IF OUT OF BOUNDS TRAP, CHECK RL21 AND LS1A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

```
TRAP32 BRM OBJECT START OBJECT TEST
15175 0 43 00430 BRM RETURN SET TRAP RETURN
15176 0 43 00440 BRM RETURN SET TRAP RETURN
15177 0 20 15213 NOP T32
15200 0 76 23676 LDA #000004400
15201 0 35 00415 STA RL1 RL1 CONTENTS
15202 0 76 23447 LDA #000000000
15203 0 35 00416 STA RL2 RL2 CONTENTS
15204 0 02 20400 EBM 020400
15205 0 13 00415 PBT RL1 SET RL1
15206 0 02 21000 EBM 021000
15207 0 13 00416 PBT RL2 SET RL2
15210 4 35 13777 STA 013777,4 SHOULD READ ONLY TRAP
15211 0 46 00001 CLA
15212 0 01 15214 BRU **2
15213 0 76 00450 T32 LDA DIVERT
15214 0 14 23506 ETR #037777
15215 0 50 23657 SKE #T43 EXPECTED READ ONLY TRAP ID
15216 0 43 00460 BRM ERROR
15217 0 20 23036 NOP TM32
15220 0 43 00434 BRM END LOOP IF BP1 SET
```


CPU0 TAP=3.0 01/15 03101 PAGE 317

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL20
* IF OUT OF BOUNDS TRAP, CHECK RL20 AND L$00A' BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP33 BRM OBJECT START OBJECT TEST
BRM RETURN SET TRAP RETURN
NOP T33
LDA $000005000
STA RL1 RL1 CONTENTS
LDA $000000000
STA RL2 RL2 CONTENTS
EOM 020400
POT RL1 SET RL1
EOM 021000
POT RL2 SET RL2
STA 013777,4 SHOULD READ ONLY TRAP
CLA
BRU **2
LDA DIVERT
ETR $037777
SKE $T43 EXPECTED READ ONLY TRAP ID
BRM ERROR
NOP TM33
BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 318

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL2H
* IF OUT OF BOUNDS TRAP, CHECK RL2H AND L$00A' BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP34 BRM OBJECT START OBJECT TEST
BRM RETURN SET TRAP RETURN
NOP T34
LDA $000006000
STA RL1 RL1 CONTENTS
LDA $000000000
STA RL2 RL2 CONTENTS
EOM 020400
POT RL1 SET RL1
EOM 021000
POT RL2 SET RL2
STA 013777,4 SHOULD READ ONLY TRAP
CLA
BRU **2
LDA DIVERT
ETR $037777
SKE $T43 EXPECTED READ ONLY TRAP ID
BRM ERROR
NOP TM34
BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 319

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL33
* IF OUT OF BOUNDS TRAP, CHECK RL33 AND S31
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
15271 0 43 00430 TRAP35 BRM OBJECT START OBJECT TEST
15272 0 43 00440 BRM RETURN SET TRAP RETURN
15273 0 20 15307 NOP T35
15274 0 76 23701 LDA #000000041
15275 0 35 00415 STA RL1 RL1 CONTENTS
15276 0 76 23447 LDA #000000000
15277 0 35 00416 STA RL2 RL2 CONTENTS
15300 0 02 20400 EOM 020400
15301 0 13 00415 PBT RL1 SET RL1
15302 0 02 21000 EOM 021000
15303 0 13 00416 PBT RL2 SET RL2
15304 4 35 17777 STA 017777,4 SHOULD READ ONLY TRAP
15305 0 46 00001 CLA
15306 0 01 15310 BRU **2
15307 0 76 00450 T35 LDA DIVERT
15310 0 14 23506 ETR #037777
15311 0 50 23657 SKE #T43 EXPECTED READ ONLY TRAP ID
15312 0 43 00460 BRM ERROR
15313 0 20 23062 NOP TM35
15314 0 43 00434 BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 320

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL32
* IF OUT OF BOUNDS TRAP, CHECK RL32 AND L82A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
15315 0 43 00430 TRAP36 BRM OBJECT START OBJECT TEST
15316 0 43 00440 BRM RETURN SET TRAP RETURN
15317 0 20 15333 NOP T36
15320 0 76 23702 LDA #000000042
15321 0 35 00415 STA RL1 RL1 CONTENTS
15322 0 76 23447 LDA #000000000
15323 0 35 00416 STA RL2 RL2 CONTENTS
15324 0 02 20400 EOM 020400
15325 0 13 00415 PBT RL1 SET RL1
15326 0 02 21000 EOM 021000
15327 0 13 00416 PBT RL2 SET RL2
15330 4 35 17777 STA 017777,4 SHOULD READ ONLY TRAP
15331 0 46 00001 CLA
15332 0 01 15334 BRU **2
15333 0 76 00450 T36 LDA DIVERT
15334 0 14 23506 ETR #037777
15335 0 50 23657 SKE #T43 EXPECTED READ ONLY TRAP ID
15336 0 43 00460 BRM ERROR
15337 0 20 23067 NOP TM36
15340 0 43 00434 BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 321

- THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL31
- IF OUT OF BOUNDS TRAP, CHECK RL31 AND L31A1 BAR
- NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

```
TRAP37 BRM OBJECT START OBJECT TEST
BRM RETURN SET TRAP RETURN
NOP T37
LDA #000000044 RL1 CONTENTS
STA RL1
LDA #000000000 RL2 CONTENTS
STA RL2
EOM Q20400 SET RL1
PBT RL1
EOM Q21000 SET RL2
PBT RL2 SHOULD READ ONLY TRAP
STA 017777,4
CLA
BRU **2
LDA T37 DIVERT
ETR #037777 EXPECTED READ ONLY TRAP ID
SKE #T43
BRM ERROR
NOP TM37
BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 322

- THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL30
- IF OUT OF BOUNDS TRAP, CHECK RL30 AND L30A1 BAR
- NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

```
TRAP38 BRM OBJECT START OBJECT TEST
BRM RETURN SET TRAP RETURN
NOP T38
LDA #000000050 RL1 CONTENTS
STA RL1
LDA #000000000 RL2 CONTENTS
STA RL2
EOM Q20400 SET RL1
PBT RL1
EOM Q21000 SET RL2
PBT RL2 SHOULD READ ONLY TRAP
STA 017777,4
CLA
BRU **2
LDA T38 DIVERT
ETR #037777 EXPECTED READ ONLY TRAP ID
SKE #T43
BRM ERROR
NOP TM38
BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 323

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL3H
* IF OUT OF BOUNDS TRAP, CHECK RL3H AND L800A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

```
TRAP39 BRM OBJECT START OBJECT TEST
15411 0 43 00430 BRM RETURN SET TRAP RETURN
15412 0 43 00440 BRM RETURN SET TRAP RETURN
15413 0 20 15427 NOP T39
15414 0 76 23705 LDA #000000060
15415 0 35 00415 STA RL1 RL1 CONTENTS
15416 0 76 23447 LDA #000000000
15417 0 35 00416 STA RL2 RL2 CONTENTS
15420 0 02 20400 EDM 020400
15421 0 13 00415 PBT RL1 SET RL1
15422 0 02 21000 EDM 021000
15423 0 13 00416 PBT RL2 SET RL2
15424 4 35 17777 STA 017777,4 SHOULD READ ONLY TRAP
15425 0 46 00001 CLA
15426 0 01 15430 BRU **2
15427 0 76 00450 T39 LDA DIVERT
15430 0 14 23506 ETR #037777
15431 0 50 23457 SKE #T43 EXPECTED READ ONLY TRAP ID
15432 0 43 00460 BRM ERROR
15433 0 20 23106 NOP TM39
15434 0 43 00434 BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 324

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL43
* IF OUT OF BOUNDS TRAP, CHECK RL43 AND S31
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

```
TRAP40 BRM OBJECT START OBJECT TEST
15435 0 43 00430 BRM RETURN SET TRAP RETURN
15436 0 43 00440 BRM RETURN SET TRAP RETURN
15437 0 20 15453 NOP T40A
15440 0 76 23447 LDA #000000000
15441 0 35 00415 STA RL1 RL1 CONTENTS
15442 0 76 23664 LDA #041000000
15443 0 35 00416 STA RL2 RL2 CONTENTS
15444 0 02 20400 EDM 020400
15445 0 13 00415 PBT RL1 SET RL1
15446 0 02 21000 EDM 021000
15447 0 13 00416 PBT RL2 SET RL2
15450 4 35 23777 STA 023777,4 SHOULD READ ONLY TRAP
15451 0 46 00001 CLA
15452 0 01 15454 BRU **2
15453 0 76 00450 T40A LDA DIVERT
15454 0 14 23506 ETR #037777
15455 0 50 23457 SKE #T43 EXPECTED READ ONLY TRAP ID
15456 0 43 00460 BRM ERROR
15457 0 20 23113 NOP TM40
15460 0 43 00434 BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 325

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL42
* IF OUT OF BOUNDS TRAP, CHECK RL42 AND LB2A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP41 BRM OBJECT START OBJECT TEST
BRM RETURN SET TRAP RETURN
NBP T41A
LDA #00000000
STA RL1 RL1 CONTENTS
LDA #042000000
STA RL2 RL2 CONTENTS
EBM 020400
PBT RL1 SET RL1
EBM 021000
PBT RL2 SET RL2
STA 023777,4 SHOULD READ ONLY TRAP
CLA BRU **2
LDA DIVERT
ETR #037777
SKE #T43 EXPECTED READ ONLY TRAP ID
BRM ERROR
NBP TM41
BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 326

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL41
* IF OUT OF BOUNDS TRAP, CHECK RL41 AND LB1A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP42 BRM OBJECT START OBJECT TEST
BRM RETURN SET TRAP RETURN
NBP T42A
LDA #00000000
STA RL1 RL1 CONTENTS
LDA #044000000
STA RL2 RL2 CONTENTS
EBM 020400
PBT RL1 SET RL1
EBM 021000
PBT RL2 SET RL2
STA 023777,4 SHOULD READ ONLY TRAP
CLA BRU **2
LDA DIVERT
ETR #037777
SKE #T43 EXPECTED READ ONLY TRAP ID
BRM ERROR
NBP TM42
BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 327

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL40
* IF OUT OF BOUNDS TRAP, CHECK RL40 AND LSOA1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

15531	0	43	00430	TRAP#3	BRM	OBJECT	START OBJECT TEST
15532	0	43	00440		BRM	RETURN	SET TRAP RETURN
15533	0	20	15547		NOP	T43A	
15534	0	76	23447		LDA	#0	
15535	0	35	00415		STA	RL1	RL1 CONTENTS
15536	0	76	23667		LDA	#080000000	
15537	0	35	00416		STA	RL2	RL2 CONTENTS
15540	0	02	20400		EDM	020400	
15541	0	13	00415		POT	RL1	SET RL1
15542	0	02	21000		EDM	021000	
15543	0	13	00416		POT	RL2	SET RL2
15544	4	35	23777		STA	023777,4	SHOULD READ ONLY TRAP
15545	0	46	00001		CLA		
15546	0	01	15550		BRU	++2	
15547	0	76	00450	T43A	LDA	DIVERT	
15550	0	14	23506		ETR	#037777	
15551	0	50	23657		SKE	#T43	EXPECTED READ ONLY TRAP ID
15552	0	43	00460		BRM	ERROR	
15553	0	20	23132		NOP	TM43	
15554	0	43	00434		BRM	END	LOOP IF BP1 SET

CPU0 TAP=3.0 01/15 03101 PAGE 328

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL44
* IF OUT OF BOUNDS TRAP, CHECK RL44 AND LSOA1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

15555	0	43	00430	TRAP#4	BRM	OBJECT	START OBJECT TEST
15556	0	43	00440		BRM	RETURN	SET TRAP RETURN
15557	0	20	15573		NOP	T44A	
15560	0	76	23447		LDA	#000000000	
15561	0	35	00415		STA	RL1	RL1 CONTENTS
15562	0	76	23600		LDA	#080000000	
15563	0	35	00416		STA	RL2	RL2 CONTENTS
15564	0	02	20400		EDM	020400	
15565	0	13	00415		POT	RL1	SET RL1
15566	0	02	21000		EDM	021000	
15567	0	13	00416		POT	RL2	SET RL2
15570	4	35	23777		STA	023777,4	SHOULD READ ONLY TRAP
15571	0	46	00001		CLA		
15572	0	01	15574		BRU	++2	
15573	0	76	00450	T44A	LDA	DIVERT	
15574	0	14	23506		ETR	#037777	
15575	0	50	23657		SKE	#T43	EXPECTED READ ONLY TRAP ID
15576	0	43	00460		BRM	ERROR	
15577	0	20	23137		NOP	TM44	
15600	0	43	00434		BRM	END	LOOP IF BP1 SET

CPU0 TAP=3.0 01/15 03101 PAGE 329

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL53
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP45 BRM OBJECT START OBJECT TEST
15601 0 43 00430 BRM RETURN SET TRAP RETURN
15602 0 43 00440 BRM RETURN SET TRAP RETURN
15603 0 20 15617 NOP T45
15604 0 76 23447 LDA #000000000
15605 0 35 00415 STA RL1 RL1 CONTENTS
15606 0 76 23670 LDA #000410000
15607 0 35 00416 STA RL2 RL2 CONTENTS
15610 0 02 20400 EOM 020400
15611 0 13 00415 PBT RL1 SET RL1
15612 0 02 21000 EOM 021000
15613 0 13 00416 PBT RL2 SET RL2
15614 4 35 27777 STA 027777,4 SHOULD READ ONLY TRAP
15615 0 46 00401 CLA
15616 0 01 15420 BRU **2
15617 0 76 00450 T45 LDA DIVERT
15620 0 14 23506 ETR #037777
15621 0 50 23657 SKE #T43 EXPECTED READ ONLY TRAP ID
15622 0 43 00460 BRM ERROR
15623 0 20 23144 NOP TM45
15624 0 43 00434 BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 330

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL52
* IF OUT OF BOUNDS TRAP, CHECK RL52 AND L92A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP46 BRM OBJECT START OBJECT TEST
15625 0 43 00430 BRM RETURN SET TRAP RETURN
15626 0 43 00440 BRM RETURN SET TRAP RETURN
15627 0 20 15643 NOP T46
15630 0 76 23447 LDA #000000000
15631 0 35 00415 STA RL1 RL1 CONTENTS
15632 0 76 23671 LDA #000420000
15633 0 35 00416 STA RL2 RL2 CONTENTS
15634 0 02 20400 EOM 020400
15635 0 13 00415 PBT RL1 SET RL1
15636 0 02 21000 EOM 021000
15637 0 13 00416 PBT RL2 SET RL2
15640 4 35 27777 STA 027777,4 SHOULD READ ONLY TRAP
15641 0 46 00401 CLA
15642 0 01 15444 BRU **2
15643 0 76 00450 T46 LDA DIVERT
15644 0 14 23506 ETR #037777
15645 0 50 23657 SKE #T43 EXPECTED READ ONLY TRAP ID
15646 0 43 00460 BRM ERROR
15647 0 20 23154 NOP TM46
15650 0 43 00434 BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 331

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RLB1
* IF OUT OF BOUNDS TRAP, CHECK RLB1 AND L51A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

```
TRAP47 BRM OBJECT          START OBJECT TEST
        BRM RETURN          SET TRAP RETURN
        NOP T47
        LDA #00000000
        STA RL1              RL1 CONTENTS
        LDA #00040000
        STA RL2              RL2 CONTENTS
        EBM 020400
        PBT RL1              SET RL1
        EBM 021000
        PBT RL2              SET RL2
        STA 027777,4        SHOULD READ ONLY TRAP
        CLA
        BRU **2
        LDA T47             DIVERT
        ETR #037777
        SKE #T43            EXPECTED READ ONLY TRAP ID
        BRM ERROR
        NOP TM47
        BRM END              LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 332

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RLB0
* IF OUT OF BOUNDS TRAP, CHECK RLB0 AND L50A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

```
TRAP48 BRM OBJECT          START OBJECT TEST
        BRM RETURN          SET TRAP RETURN
        NOP T48
        LDA #00000000
        STA RL1              RL1 CONTENTS
        LDA #00050000
        STA RL2              RL2 CONTENTS
        EBM 020400
        PBT RL1              SET RL1
        EBM 021000
        PBT RL2              SET RL2
        STA 027777,4        SHOULD READ ONLY TRAP
        CLA
        BRU **2
        LDA T48             DIVERT
        ETR #037777
        SKE #T43            EXPECTED READ ONLY TRAP ID
        BRM ERROR
        NOP TM48
        BRM END              LOOP IF BP1 SET
```


CPU0 TAP=3.0 01/15 03101 PAGE 333

```

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL5H
* IF OUT OF BOUNDS TRAP, CHECK RL5H AND L500A' BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
15721 0 43 00430 TRAP49 BRM OBJECT START OBJECT TEST
15722 0 43 00440 BRM RETURN SET TRAP RETURN
15723 0 20 15737 NOP T49
15724 0 76 23447 LDA #000000000
15725 0 35 00415 STA RL1 RL1 CONTENTS
15726 0 76 23603 LDA #000600000
15727 0 35 00414 STA RL2 RL2 CONTENTS
15730 0 02 20400 EOM 020400
15731 0 13 00415 PBT RL1 SET RL1
15732 0 02 21000 EOM 021000
15733 0 13 00416 PBT RL2 SET RL2
15734 4 35 27777 STA 027777.4 SHOULD READ ONLY TRAP
15735 0 46 00001 CLA
15736 0 01 15740 BRU **2
15737 0 76 00450 T49 LDA DIVERT
15740 0 14 23506 ETR #037777
15741 0 50 23457 SKE #T43 EXPECTED READ ONLY TRAP ID
15742 0 43 00460 BRM ERROR
15743 0 20 23173 NOP TM49
15744 0 43 00434 BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 334

```

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL63
* IF OUT OF BOUNDS TRAP, CHECK RL63 AND S31
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
15745 0 43 00430 TRAP50 BRM OBJECT START OBJECT TEST
15746 0 43 00440 BRM RETURN SET TRAP RETURN
15747 0 20 15763 NOP T50
15750 0 76 23447 LDA #000000000
15751 0 35 00415 STA RL1 RL1 CONTENTS
15752 0 76 23674 LDA #000004100
15753 0 35 00416 STA RL2 RL2 CONTENTS
15754 0 02 20400 EOM 020400
15755 0 13 00415 PBT RL1 SET RL1
15756 0 02 21000 EOM 021000
15757 0 13 00416 PBT RL2 SET RL2
15760 4 35 33777 STA 033777.4 SHOULD READ ONLY TRAP
15761 0 46 00001 CLA
15762 0 01 15764 BRU **2
15763 0 76 00450 T50 LDA DIVERT
15764 0 14 23506 ETR #037777
15765 0 50 23457 SKE #T43 EXPECTED READ ONLY TRAP ID
15766 0 43 00460 BRM ERROR
15767 0 20 23700 NOP TM50
15770 0 43 00434 BRM END LOOP IF BP1 SET
```

CPJ0 TAP=3.C 01/15 03101 PAGE 335

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL62
* IF OUT OF BOUNDS TRAP, CHECK RL62 AND LS2A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

15771	0 43 00430	TRAP51 BRM	OBJECT	START OBJECT TEST	
15772	0 43 00440	BRM	RETURN	SET TRAP RETURN	
15773	0 20 16007	NBP	T51		
15774	0 76 23447	LDA	#000000000		RL1 CONTENTS
15775	0 35 00415	STA	RL1		
15776	0 76 23675	LDA	#00004200		RL2 CONTENTS
15777	0 35 00416	STA	RL2		
16000	0 02 20400	EOM	020400		
16001	0 13 00415	PBT	RL1		SET RL1
16002	0 02 21000	EOM	021000		
16003	0 13 00416	PBT	RL2		SET RL2
16004	* 35 33777	STA	033777,4		SHOULD READ ONLY TRAP
16005	0 46 00001	CLA			
16006	0 01 16010	BRU	**2		
16007	0 76 00450	T51 LDA	DIVERT		
16010	0 14 23526	ETR	#037777		
16011	0 50 23657	SKE	#T43		EXPECTED READ ONLY TRAP ID
16012	0 43 00460	BRM	ERR0R		
16013	0 20 23205	NBP	TMS1		
16014	0 43 00434	BRM	END		LOOP IF BP1 SET

CPU0 TAP=3.C 01/15 03101 PAGE 336

* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL61
* IF OUT OF BOUNDS TRAP, CHECK RL61 AND LS1A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE

16015	0 43 00430	TRAP52 BRM	OBJECT	START OBJECT TEST	
16016	0 43 00440	BRM	RETURN	SET TRAP RETURN	
16017	0 20 16033	NBP	T52		
16020	0 76 23447	LDA	#000000000		RL1 CONTENTS
16021	0 35 00415	STA	RL1		
16022	0 76 23676	LDA	#00004400		RL2 CONTENTS
16023	0 35 00416	STA	RL2		
16024	0 02 20400	EOM	020400		
16025	0 13 00415	PBT	RL1		SET RL1
16026	0 02 21000	EOM	021000		
16027	0 13 00416	PBT	RL2		SET RL2
16030	* 35 33777	STA	033777,4		SHOULD READ ONLY TRAP
16031	0 46 00001	CLA			
16032	0 01 16034	BRU	**2		
16033	0 76 00450	T52 LDA	DIVERT		
16034	0 14 23506	ETR	#037777		
16035	0 50 23657	SKE	#T43		EXPECTED READ ONLY TRAP ID
16036	0 43 00460	BRM	ERR0R		
16037	0 20 23212	NBP	TMS2		
16040	0 43 00434	BRM	END		LOOP IF BP1 SET

CPU0 TAP=3.0 01/15 03101 PAGE 337

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL60
* IF OUT OF BOUNDS TRAP, CHECK RL60 AND L80A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP53 BRM OBJECT START OBJECT TEST
          BRM RETURN SET TRAP RETURN
          NOP T53
          LDA #000000000
          STA RL1 RL1 CONTENTS
          LDA #000005000
          STA RL2 RL2 CONTENTS
          EDM 020400
          PST RL1 SET RL1
          EDM 021000
          PST RL2 SET RL2
          STA 033777,4 SHOULD READ ONLY TRAP
          CLA
          BRU **2
          LDA DIVERT
          ETR #037777
          SKE #T43 EXPECTED READ ONLY TRAP ID
          BRM ERROR
          NOP TMS3
          BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 338

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL6H
* IF OUT OF BOUNDS TRAP, CHECK RL6H AND L800A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP54 BRM OBJECT START OBJECT TEST
          BRM RETURN SET TRAP RETURN
          NOP T54
          LDA #000000000
          STA RL1 RL1 CONTENTS
          LDA #000006000
          STA RL2 RL2 CONTENTS
          EDM 020400
          PST RL1 SET RL1
          EDM 021000
          PST RL2 SET RL2
          STA 033777,4 SHOULD READ ONLY TRAP
          CLA
          BRU **2
          LDA DIVERT
          ETR #037777
          SKE #T43 EXPECTED READ ONLY TRAP ID
          BRM ERROR
          NOP TMS4
          BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.C 01/15 03101 PAGE 339

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL73
* IF OUT OF BOUNDS TRAP, CHECK RL73 AND S3'
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP55 BRM OBJECT START OBJECT TEST
BRM RETURN SET TRAP RETURN
NOP T55
LDA #000000000
STA RL1 RL1 CONTENTS
LDA #000000041
STA RL2 RL2 CONTENTS
EOM 020400
PBT RL1 SET RL1
EOM 021000
PBT RL2 SET RL2
STA 037777,4 SHOULD READ ONLY TRAP
CLA
BRU **2
LDA DIVERT
ETR #037777
SKE #T43 EXPECTED READ ONLY TRAP ID
BRM ERROR
NOP TMS5
BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.C 01/15 03101 PAGE 340

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL72
* IF OUT OF BOUNDS TRAP, CHECK RL72 AND LS2A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
TRAP56 BRM OBJECT START OBJECT TEST
BRM RETURN SET TRAP RETURN
NOP T56
LDA #000000000
STA RL1 RL1 CONTENTS
LDA #000000042
STA RL2 RL2 CONTENTS
EOM 020400
PBT RL1 SET RL1
EOM 021000
PBT RL2 SET RL2
STA 037777,4 SHOULD READ ONLY TRAP
CLA
BRU **2
LDA DIVERT
ETR #037777
SKE #T43 EXPECTED READ ONLY TRAP ID
BRM ERROR
NOP TMS6
BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 341

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL71
* IF OUT OF BOUNDS TRAP, CHECK RL71 AND LS1A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
16161 0 43 00430 TRAP57 BRM OBJECT START OBJECT TEST
16162 0 43 00440 BRM RETURN SET TRAP RETURN
16163 0 20 16177 NOP T57
16164 0 76 23447 LDA #000000000
16165 0 35 00415 STA RL1 RL1 CONTENTS
16166 0 76 23703 LDA #000000044
16167 0 35 00416 STA RL2 RL2 CONTENTS
16170 0 02 20400 EBM 020400
16171 0 13 00415 PBT RL1 SET RL1
16172 0 02 21000 EBM 021000
16173 0 13 00416 PBT RL2 SET RL2
16174 4 35 37777 STA 037777,4 SHOULD READ ONLY TRAP
16175 0 46 00001 CLA
16176 0 01 16200 BRU **2
16177 0 76 00450 T58 LDA DIVERT
16200 0 14 23506 ETR #037777
16201 0 50 23657 SKE #T43 EXPECTED TEAD ONLY TRAP ID
16202 0 43 00460 BRM ERROR
16203 0 20 23243 NOP TMS7
16204 0 43 00434 BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 342

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL70
* IF OUT OF BOUNDS TRAP, CHECK RL70 AND LS0A1 BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
16205 0 43 00430 TRAP58 BRM OBJECT START OBJECT TEST
16206 0 43 00440 BRM RETURN SET TRAP RETURN
16207 0 20 16223 NOP T58
16210 0 76 23447 LDA #000000000
16211 0 35 00415 STA RL1 RL1 CONTENTS
16212 0 76 23704 LDA #000000050
16213 0 35 00416 STA RL2 RL2 CONTENTS
16214 0 02 20400 EBM 020400
16215 0 13 00415 PBT RL1 SET RL1
16216 0 02 21000 EBM 021000
16217 0 13 00416 PBT RL2 SET RL2
16220 4 35 37777 STA 037777,4 SHOULD READ ONLY TRAP
16221 0 46 00001 CLA
16222 0 01 16224 BRU **2
16223 0 76 00450 T58 LDA DIVERT
16224 0 14 23506 ETR #037777
16225 0 50 23657 SKE #T43 EXPECTED READ ONLY TRAP ID
16226 0 43 00460 BRM ERROR
16227 0 20 23250 NOP TMS8
16230 0 43 00434 BRM END LOOP IF BP1 SET
```

CPU0 TAP=3.0 01/15 03101 PAGE 343

```
* THIS OBJECT TEST ATTEMPTS A READ ONLY TRAP DEPENDENT ON RL7H
* IF OUT OF BOUNDS TRAP, CHECK RL7H AND LS00A! BAR
* NO TRAP MAY BE CAUSED BY AN INTERMITTENT FAILURE
16231 0 43 00430 TRAP59 BRM OBJECT START OBJECT TEST
16232 0 43 00440 BRM RETURN SET TRAP RETURN
16233 0 20 16247 NBP T59
16234 0 76 23447 LDA *000000000
16235 0 35 00415 STA RL1 RL1 CONTENTS
16236 0 76 23705 LDA *000000060
16237 0 35 00416 STA RL2 RL2 CONTENTS
16240 0 02 20400 EBM 020400
16241 0 13 00415 PBT RL1 SET RL1
16242 0 02 21000 EBM 021000
16243 0 13 00416 PBT RL2 SET RL2
16244 4 35 37777 STA 037777,4 SHOULD READ ONLY TRAP
16245 0 46 00001 CLA
16246 0 01 16250 BRU **2
16247 0 76 00450 T59 LDA DIVERT
16250 0 14 23506 ETR *037777
16251 0 50 23657 SKE *T43 EXPECTED READ ONLY TRAP ID
16252 0 40 00460 BRM ERROR
16253 0 20 23255 NBP TM59
16254 0 43 00434 BRM END LOOP IF BP1 SET
16255 0 43 00456 BRM DONE
```

CPU0 TAP=3.0 01/15 03101 PAGE 344

```
* TRANSITION DIAGNOSTIC
16256 0 43 00424 FUNC2 BRM FUNCTN
16257 0 20 20022 NBP FBT2
16260 0 76 23706 LDA *40010203 MAKE PAGE 0 OUT OF BOUNDS
16261 0 35 00415 STA RL1
16262 0 02 20400 EBM 20400
16263 0 13 00415 PBT RL1 SET RL1
16264 0 76 23707 LDA *04050607
16265 0 35 00416 STA RL2
16266 0 02 21000 EBM 21000
16267 0 13 00416 PBT RLP SET RL2
```

```

* BRU TRANSITION
16270 0 43 00430 TRAN1 BRM OBJECT
16271 0 43 00440 BRM RETURN SET TRAP RETURN
16272 0 20 16301 NOP TRANR1
16273 0 02 22400 EBM 22400 ARM MUT TRAP
16274 4 01 16275 BRU **1,4 SHOULD TRANSITION AND TRAP
16275 0 02 22000 EBM 22000 SHOULD PIT
16276 0 35 00000 STA 0 SHOULD 00BT
16277 0 43 00460 BRM ERROR DID NOT TRANSITION
16300 0 20 23262 NOP TRANM1
16301 0 43 00434 TRANR1 BRM END

* BR2 TRANSITION
16302 0 43 00430 TRAN2 BRM OBJECT
16303 0 43 00440 BRM RETURN SET TRAP RETURN
16304 0 20 16314 NOP TRANR2
16305 0 02 22400 EBM 22400 ARM MUT TRAP
16306 0 51 16307 BR2 **1 SHOULD TRANSITION AND TRAP
16307 4 20 16307 NOP **4
16310 0 02 22000 EBM 22000 SHOULD PIT
16311 0 35 00000 STA 0 SHOULD 00BT
16312 0 43 00460 BRM ERROR DID NOT TRANSITION
16313 0 20 23267 NOP TRANM2
16314 0 43 00434 TRANR2 BRM END

* BRM TRANSITION
16315 0 43 00430 TRAN3 BRM OBJECT
16316 0 43 00440 BRM RETURN SET TRAP RETURN
16317 0 20 16327 NOP TRANR3
16320 0 02 22400 EBM 22400 ARM MUT TRAP
16321 4 43 16322 BRM **1,4 SHOULD TRANSITION AND TRAP
16322 0 20 00000 NOP
16323 0 02 22000 EBM 22000 SHOULD PIT
16324 0 35 00000 STA 0 SHOULD 00BT
16325 0 43 00460 BRM ERROR DID NOT TRANSITION
16326 0 20 23273 NOP TRANM3
16327 0 43 00434 TRANR3 BRM END

```

```

* THESE SHOULD NOT CAUSE TRANSITION
16330 0 43 00430 TRAN4 BRM OBJECT
16331 0 43 00440 BRM RETURN SET TRAP RETURN
16332 0 20 16344 NOP TRANR4
16333 4 71 37777 LDX 37777,4 SHOULD NOT TRANSITION
16334 4 55 37777 ADD 37777,4 *
16335 4 53 37777 SKN 37777,4 *
16336 0 20 00000 NOP 0 *
16337 4 50 37777 SKE 37777,4 *
16340 0 20 00000 NOP 0 *
16341 0 02 22000 EBM 22000 SHOULD NOT PIT
16342 0 35 00000 STA 0 SHOULD NOT 00BT
16343 0 01 16345 BRU **2 OK
16344 0 43 00460 TRANR4 BRM ERROR TRAPPED
16345 0 20 23267 NOP TRANM2
16346 0 43 00434 TRANR4 BRM END

* CHECK NON BRANCHING BRX
16347 0 43 00430 TRAN5 BRM OBJECT
16350 0 43 00440 BRM RETURN SET TRAP RETURN
16351 0 20 16357 NOP TRANR5
16352 2 46 00000 CLX
16353 4 41 16354 BRX **1,4 SHOULD NOT TRANSITION
16354 0 02 22000 EBM 22000 SHOULD NOT PIT
16355 0 35 00000 STA 0 SHOULD NOT 00BT
16356 0 01 16360 BRU **2
16357 0 43 00460 TRANR5 BRM ERROR TRAPPED
16360 0 20 23277 NOP TRANM4
16361 0 43 00434 TRANR5 BRM END

```

CPUO TAP=3.C 01/15 03101 PAGE 347

```
* CHECK RELABLED LDA
16362 0 43 00430 TRAN6 BRM OBJECT
16363 0 43 00440 BRM RETURN SET TRAP RETURN
16364 0 20 16371 NBP TRANR6
16365 4 76 37777 LDA 37777,4 SHOULD NOT TRANSITION
16366 0 02 22000 EBM 22000 SHOULD NOT PIT
16367 0 35 00000 STA 0 SHOULD NOT 00BT
16370 0 C1 16372 BRU **2
16371 0 43 00460 TRANR6 BRM ERROR TRAPPED
16372 0 20 23273 NBP TRANM3
16373 0 43 00434 BRM END
```

CPUO TAP=3.C 01/15 03101 PAGE 348

```
* IS THE MONITOR TO USER TRANSITION TRAP ALWAYS ARMED
16374 0 43 00430 BRM OBJECT
16375 0 43 00440 BRM RETURN SET TRAP RETURN
16376 0 20 16413 NBP MUTR1
16377 0 02 20400 EBM 20400 DUMMY EBM
16400 0 13 00415 PBT RL1 SETS RL1 AGAIN
16401 0 02 22000 EBM 22000
16402 0 02 02400 EBM 02400
16403 0 02 23400 EBM 23400
16404 0 02 32400 EBM 32400
16405 0 20 22400 NBP 22400
16406 4 01 16407 BRU **1,4 TO USER MODE
16407 0 02 22000 EBM 22000 SHOULD PIT
16410 0 35 00000 STA 0 IF NO PIT THEN 00BT
16411 0 46 00001 CLA
16412 0 01 16414 BRU **2
16413 0 76 00450 MUTR1 LDA DIVERT
16414 0 14 23506 ETR 37777
16415 0 50 23710 SKE *T** IS IT A MUTT
16416 0 01 16420 BRU **2 NO, OK
16417 0 43 00460 BRM ERROR YES, ERROR
16420 0 20 23303 NBP MUTM1
16421 0 43 00434 BRM END
```



```

* IS THE MUTT POSSIBLE
16422 0 43 00430 MUT2 BRM 0BJECT
16423 0 43 00440 BRM RETURN SET TRAP RETURN
16424 0 20 16433 NOP MUTR2
16425 0 02 22400 ERM 22400 ARM MUTT
16426 * 01 16427 BRU **1.4 SHOULD MUTT
16427 0 02 22000 ERM 22000 IF NO MUTT, THEN PIT
16430 0 35 00000 STA 0 IF NO MUTT OR PIT, THEN 00BT
16431 0 46 00001 CLA
16432 0 01 16434 BRU **2
16433 0 76 00450 MUTR2 LDA DIVERT
16434 0 14 2380A ETR **37777
16435 0 50 23710 SKE **T44
16436 0 43 00460 BRM ERROR DID IT MUTT
16437 0 20 23314 NOP MUTM2 NO
16440 0 43 00434 BRM END
    
```

```

* WILL IT MUTT FROM MONITOR MODE
16441 0 43 00430 MUT3 BRM 0BJECT
16442 0 43 00440 BRM RETURN SET TRAP RETURN
16443 0 20 16450 NOP MUTR3A
16444 0 02 22400 ERM 22400
16445 0 43 00440 BRM RETURN
16446 0 20 16452 NOP MUTR3B
16447 * 01 16450 BRU **1.4 SHOULD MUTT
16450 0 43 00460 MUTR3A BRM ERROR MUTT FROM MONITOR MODE
16451 0 20 23324 NOP MUTM3
16452 0 43 00434 MUTR3B BRM END
16453 0 43 00436 BRM F00NE
    
```

```

CPU0  TAP=3.0  01/15  03:01  PAGE 351
16454  0 43 00424  FUNC3  BRM  FUNCTN
16455  0 20 20030  NBP  FPT3
16456  0 76 23706  LDA  #40010203
16457  0 35 00415  STA  RL1  MAKE PAGE 0 OUT OF BOUNDS
16460  0 02 20400  EBM  20400
16461  0 13 00415  PBT  RL1  SET RL1
16462  0 76 23707  LDA  #04050607
16463  0 35 00416  STA  RL2
16464  0 02 21000  EBM  21000  SET RL2
16465  0 13 00416  PBT  RL2

```

```

CPU0  TAP=3.0  01/15  03:01  PAGE 352
* IS A PRIVILEGED INSTRUCTION TRAP POSSIBLE
16466  0 43 00430  PIT1  BRM  OBJECT
16467  0 43 00440  BRM  RETURN  SET TRAP RETURN
16470  0 20 16477  NBP  PIR1
16471  4 01 16472  BRU  **1,4  TO USER MODE
16472  0 42 00000  42  0  UNDEFINED NBP
16473  0 24 00000  24  0  UNDEFINED NBP
16474  5 00 00000  POP  0,4  IF NO PIT, THEN SYSPOP
16475  0 46 00001  CLA
16476  0 01 16500  BRU  **2  NO TRAP OR SYSPOP
16477  0 76 00450  PIR1  LDA  DIVERT  GET TRAP ID
16500  0 14 23806  ETR  #37777
16501  0 50 23711  SKE  #T40  DID IT PIT
16502  0 43 00460  BRM  ERROR  NO
16503  0 20 23330  NBP  PIR1
16504  0 43 00434  BRM  END

```

```

* NONE OF THESE SHOULD TRAP
16505 0 43 00430 PIT2 BRM OBJECT SET TRAP RETURN
16506 0 43 00440 BRM RETURN
16507 0 20 16533 NBP PIR2 TO USER MODE
16510 4 01 16511 BRU **1,4 SHOULD NOT TRAP
16511 0 46 00000 RCH 0
16512 0 35 37777 STA 37777
16513 0 36 37777 STB 37777
16514 0 20 00000 NBP 0
16515 0 14 37777 ETR 37777
16516 0 23 16517 EXU **1
16517 0 17 37777 EBR 37777
16520 0 01 16521 BRU **1
16521 0 65 37777 DIV 37777
16522 0 50 37777 SKE 37777
16523 0 20 00000 NBP 0
16524 0 22 00001 RRV
16525 0 55 37777 ADD 37777
16526 0 70 37777 SK* 37777
16527 0 20 00000 NBP 0
16530 5 00 00000 PBP C,4 SHOULD SYSPBP
16531 0 46 00001 CLA
16532 0 01 16534 BRU **2
16533 0 76 00440 PIR2 LDA RETURN GET TRAP ID
16534 0 14 23506 ETR *37777
16535 0 50 23711 SKE *T40 IS IT A PIT
16536 0 01 16540 BRU **2 NO, OK
16537 0 43 00460 BRM ERROR
16540 0 20 23347 NBP PIR2
16541 0 43 00434 BRM END
    
```

```

16542 0 43 00430 PIT3 BRM OBJECT SET TRAP RETURN
16543 0 43 00440 BRM RETURN
16544 0 20 16551 NBP PIR3 TO USER MODE
16545 4 01 16546 BRU **1,4 SHOULD PIT
16546 0 45 00000 45 0
16547 0 46 00001 CLA
16550 0 01 16552 BRU **2
16551 0 76 00450 PIR3 LDA DIVERT GET TRAP MARK
16552 0 14 23506 ETR *37777
16553 0 50 23711 SKE *T40 IS IT A PIT
16554 0 43 00460 BRM ERROR NO
16555 0 20 23347 NBP PIR2
16556 0 43 00434 BRM END

*
16557 0 43 00430 PIT4 BRM OBJECT SET TRAP RETURN
16560 0 43 00440 BRM RETURN
16561 0 20 16566 NBP PIR4 TO USER MODE
16562 4 01 16563 BRU **1,4 SHOULD PIT
16563 0 44 00000 44 0
16564 0 46 00001 CLA
16565 0 01 16567 BRU **2
16566 0 76 00450 PIR4 LDA DIVERT GET TRAP MARK
16567 0 14 23506 ETR *37777
16570 0 50 23711 SKE *T40 IS IT A PIT
16571 0 43 00460 BRM ERROR NO
16572 0 20 23347 NBP PIR2
16573 0 43 00434 BRM END
    
```

```

CPU0  TAP=3.0  01/15  03101  PAGE 355
16574  0 43 00430  PIT5  BRM  OBJECT
16575  0 43 00440  BRM  RETURN  SET TRAP RETURN
16576  0 20 16603  NOP  PIR5  TO USER MODE
16577  4 01 16600  BRU  **1,4  SHOULD PIT
16600  0 34 00000  34  C
16601  0 46 00001  CLA
16602  0 01 16604  BRU  **2
16603  0 76 00450  PIR5  LDA  DIVERT  GET TRAP MARK
16604  0 14 23506  ETR  #37777
16605  0 50 23711  SKE  #T40  IS IT A PIT
16606  0 43 00460  BRM  ERROR  NO
16607  0 20 23347  NOP  PIR2
16610  0 43 00434  BRM  END

*
16611  0 43 00430  PIT6  BRM  OBJECT
16612  0 43 00440  BRM  RETURN  SET TRAP RETURN
16613  0 20 16620  NOP  PIR6  TO USER MODE
16614  4 01 16615  BRU  **1,4  SHOULD PIT
16615  0 15 00000  15  0
16616  0 46 00001  CLA
16617  0 01 16621  BRU  **2
16620  0 76 00450  PIR6  LDA  DIVERT  GET TRAP MARK
16621  0 14 23506  ETR  #37777
16622  0 50 23711  SKE  #T40  IS IT A PIT
16623  0 43 00460  BRM  ERROR  NO
16624  0 20 23347  NOP  PIR2
16625  0 43 00434  BRM  END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 356
16626  0 43 00430  PIT7  BRM  OBJECT
16627  0 43 00440  BRM  RETURN  SET TRAP RETURN
16630  0 20 16635  NOP  PIR7  TO USER MODE
16631  4 01 16632  BRU  **1,4  SHOULD PIT
16632  0 03 00000  03  0
16633  0 46 00001  CLA
16634  0 01 16636  BRU  **2
16635  0 76 00450  PIR7  LDA  DIVERT  GET TRAP MARK
16636  0 14 23506  ETR  #37777
16637  0 50 23711  SKE  #T40  IS IT A PIT
16640  0 43 00460  BRM  ERROR  NO
16641  0 20 23347  NOP  PIR2
16642  0 43 00434  BRM  END

*
16643  0 43 00430  PIT8  BRM  OBJECT
16644  0 43 00440  BRM  RETURN  SET TRAP RETURN
16645  0 20 16652  NOP  PIR8  TO USER MODE
16646  4 01 16647  BRU  **1,4  SHOULD PIT
16647  0 42 00000  42  0
16650  0 46 00001  CLA
16651  0 01 16653  BRU  **2
16652  0 76 00450  PIR8  LDA  DIVERT  GET TRAP MARK
16653  0 14 23506  ETR  #37777
16654  0 50 23711  SKE  #T40  IS IT A PIT
16655  0 43 00460  BRM  ERROR  NO
16656  0 20 23347  NOP  PIR2
16657  0 43 00434  BRM  END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 357

16660  0 43 00430  PIT9  BRM  OBJECT
16661  0 43 00440  BRM  RETURN  SET TRAP RETURN
16662  0 20 16667  NOP  PIR9
16663  4 01 16664  BRU  **1,4  TO USER MODE
16664  0 31 00000  31  0  SHOULD PIT
16665  0 46 00001  CLA
16666  0 01 16670  BRU  **2
16667  0 76 00450  PIR9  LDA  DIVERT  GET TRAP MARK
16670  0 14 23506  ETR  *37777
16671  0 50 23711  SKE  *T40  IS IT A PIT
16672  0 43 00460  BRM  ERROR  NO
16673  0 20 23347  NOP  PIR2
16674  0 43 00434  BRM  END

*
16675  0 43 00430  PIT10 BRM  OBJECT
16676  0 43 00440  BRM  RETURN  SET TRAP RETURN
16677  0 20 16704  NOP  PIR10
16700  4 01 16701  BRU  **1,4  TO USER MODE
16701  0 24 00000  24  0  SHOULD PIT
16702  0 46 00001  CLA
16703  0 01 16705  BRU  **2
16704  0 76 00450  PIR10  LDA  DIVERT  GET TRAP MARK
16705  0 14 23506  ETR  *37777
16706  0 50 23711  SKE  *T40  IS IT A PIT
16707  0 43 00460  BRM  ERROR  NO
16710  0 20 23347  NOP  PIR2
16711  0 43 00434  BRM  END

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 358

16712  0 43 00430  PIT11 BRM  OBJECT
16713  0 43 00440  BRM  RETURN  SET TRAP RETURN
16714  0 20 16721  NOP  PIR11
16715  4 01 16716  BRU  **1,4  TO USER MODE
16716  0 21 00000  21  0  SHOULD PIT
16717  0 46 00001  CLA
16720  0 01 16722  BRU  **2
16721  0 76 00450  PIR11  LDA  DIVERT  GET TRAP MARK
16722  0 14 23506  ETR  *37777
16723  0 50 23711  SKE  *T40  IS IT A PIT
16724  0 43 00460  BRM  ERROR  NO
16725  0 20 23347  NOP  PIR2
16726  0 43 00434  BRM  END
16727  0 43 00456  BRM  FDBNE

```

CPU0 TAP=3.0 01/15 03101 PAGE 359

```
* REAL TIME CLOCK DIAGNOSTIC
16730 0 43 00424 FUNC4 BRM FUNCN
16731 0 20 20036 NBP FPTY
16732 0 02 20002 EDM 20002 ENABLE INTERRUPTS
16733 0 43 00430 RTCO BRM OBJECT
16734 0 43 00440 BRM RETURN
16735 0 20 17073 NBP SPURCI
16736 0 43 17052 BRM RTCBN TURN ON RTC
16737 0 02 20200 EBM 20200 TURN RTC OFF
16740 0 71 23511 LDX #40000 TIMER COUNT
16741 0 76 00407 LDA TIME
16742 0 41 16742 BRX *
16743 0 17 00407 EBR TIME
16744 0 43 17061 BRM RTCOFF RESTORE RTC
16745 0 72 23460 SKA #1 DID TIME CHANGE AFTER TIMEOUT
16746 0 43 00460 BRM ERROR NO, CANNOT DISARM CLOCK
16747 0 20 23362 NBP RTCM0
16750 0 43 00434 BRM END
```

CPU0 TAP=3.0 01/15 03101 PAGE 360

```
16751 0 43 00430 RTCI BRM OBJECT
16752 0 43 00440 BRM RETURN
16753 0 20 17073 NBP SPURCI SPURIOUS CLOCK INTERRUPT
16754 0 43 17052 BRM RTCBN TURN RTC ON
16755 0 71 23511 LDX #40000
16756 0 76 00407 LDA TIME
16757 0 50 00407 RTCI A SKE TIME DOES TIME CHANGE
16760 0 01 16767 BRU RTC1B YES
16761 0 41 16757 BRX RTC1A NO TRY AGAIN
16762 0 75 00407 LDB TIME
16763 0 43 17061 BRM RTCOFF RESTORE RTC
16764 0 43 00460 BRM ERROR TIMED OUT, RTC NOT WORKING
16765 0 20 23367 NBP RTCM1
16766 0 01 17014 BRU RTC1E EXIT
16767 0 71 23511 RTCI B LDX #40000
16770 0 55 23452 ADD #1
16771 0 50 00407 RTCI C SKE TIME LOOK FOR NEXT CHANGE
16772 0 01 17001 BRU RTC1D YES CHANGED
16773 0 41 16771 BRX RTC1C NO, TRY AGAIN
16774 0 75 00407 LDB TIME
16775 0 43 17061 BRM RTCOFF RESTORE CLOCK
16776 0 43 00460 BRM ERROR TIMED OUT
16777 0 20 23367 NBP RTCM1
17000 0 01 17014 BRU RTC1E EXIT
17001 0 75 00407 RTCI D LDB TIME
17002 0 43 17061 BRM RTCOFF RESTORE RTC
17003 0 46 00600 XXA
17004 0 14 23506 ETR #37777
17005 0 73 23712 SKG #2142D MINUS 10 PERCENT
17006 0 43 00460 BRM ERROR RTC FAST OR CPU SLOW
17007 0 20 23401 NBP RTCM2
17010 0 73 23713 SKG #2619D PLUS 10 PERCENT
17011 0 01 17013 BRU #+2
17012 0 43 00460 BRM ERROR RTC SLOW OR CPU FAST
17013 0 20 23407 NBP RTCM3
17014 0 43 00434 RTCI E BRM END
```

```

CPU0  TAP=3.0  01/15  03101  PAGE 361
17015  0 43 00430  RTC2  BRM  SUBJECT  CHECK CLOCK SYNC INTERRUPT
17016  0 43 00440  BRM  RETURN  SET INTERRUPT RETURN
17017  0 20 17035  NOP  RTC2A
17020  0 02 20200  ERM  20200  TURN RTC OFF
17021  0 76 23714  LDA  #06000000+TIME
17022  0 35 00075  STA  75
17023  0 76 23460  LDA  #=1
17024  0 35 00407  STA  TIME
17025  0 43 17052  BRM  RTC0N  TURN ON RTC
17026  0 71 23511  LDX  #40000
17027  0 41 17027  BRX  *  WAIT FOR INTERRUPT
17030  0 75 00407  LDB  TIME
17031  0 43 17061  BRM  RTCOFF  RESTORE RTC
17032  0 43 00460  BRM  ERROR  TIMED OUT
17033  0 20 23415  NOP  RTCM4
17034  0 01 17046  BRU  RTC2B  EXIT
17035  0 11 17036  RTC2A  BRI  #+1  CLEAR INTERRUPT
17036  0 20 17036  NOP  *
17037  0 75 00407  LDB  TIME
17040  0 43 17061  BRM  RTCOFF  RESTORE RTC
17041  0 76 00450  LDA  DIVERT
17042  0 14 23506  ETR  #37777
17043  0 50 23715  SKE  #174  IS IT CLOCK SYNC
17044  0 43 00460  BRM  ERROR  NO
17045  0 20 23427  NOP  RTCM5
17046  0 43 00434  RTC2B  BRM  END
17047  0 02 20004  ERM  20004  DISABLE INTERRUPTS
17050  0 43 00456  BRM  FDBNE
17051  0 43 00452  LAST  BRM  DONE

```

```

CPU0  TAP=3.0  01/15  03101  PAGE 362
17052  0 00 00000  RTC0N  PZE
17053  0 35 23441  STA  TEMPA
17054  0 76 00407  LDA  TIME
17055  0 35 17072  STA  TMPTIM  SAVE TIME
17056  0 76 23441  LDA  TEMPA
17057  0 02 20100  ERM  20100  ARM RTC
17060  0 51 17052  BRR  RTC0N

*
17061  0 00 00000  RTC0FF  PZE
17062  0 02 20200  ERM  20200  DISARM RTC
17063  0 35 23441  STA  TEMPA
17064  0 76 23716  LDA  #06100000+TIME
17065  0 35 00075  STA  75  RESTORE INTERRUPT CELL
17066  0 76 17072  LDA  TMPTIM
17067  0 35 00407  STA  TIME  RESTORE TIME
17070  0 76 23441  LDA  TEMPA  RESTORE A REG
17071  0 51 17061  BRR  RTC0FF
17072  0 00 00000  TMPTIM  PZE

```

CPU0 TAP=3.0 01/15 03101 PAGE 363

```

*
* ALL INTERRUPTS AND TRAPS SPURIOUS
*
17073 0 02 20704 SPURCI DIR          DISABLE INTERRUPTS
17074 0 43 17761 BRM          RTCOFF
17075 0 76 00450 LDA          DIVERT      GET INTERRUPT MARK ADDRESS
17076 0 14 23506 ETR          #37777        EXTRACT ADDRESS PORTION
17077 0 43 17101 BRM          SPURCI        PROCESS SPURIOUS INTERRUPT/TRAP
17100 0 20 23447 NOP          #0

```

CPU0 TAP=3.0 01/15 03101 PAGE 364

```

*
* PROCESS SPURIOUS POP, INTERRUPT, OR TRAP
*
17101 0 00 00000 SPURCI PZE          0
17102 0 73 23471 SKG          #77          WAS SPIT LEGAL
17103 0 01 17114 BRU          IEXT          NO
17104 0 73 23717 SKG          #177         WAS IT A POP
17105 0 01 17122 BRU          POP          YES
17106 0 73 23720 SKG          #237         WAS IT LEGAL
17107 0 01 17114 BRU          IEXT          NO
17110 0 73 23721 SKG          #273         WAS IT 130 = 744
17111 0 01 17130 BRU          130T44       YES
17112 0 73 23722 SKG          #377         WAS IT 156 = 174
17113 0 01 17127 BRU          156174       YES
*
* PROCESS ILLEGAL OR EXTERNAL INTERRUPT
*
17114 0 76 23460 IEXT LDA          #=1
17115 0 35 17167 STA          ITABLE+1     RECEIVED
17116 0 76 00450 LDA          DIVERT      MARK
17117 0 43 00454 BRM          REPORT
17120 0 20 17172 NOP          ILLEXT
17121 0 01 17140 BRU          COMMON

```


CPU0 TAP=3.0 01/15 03101 PAGE 365

```
*
* PROCESS SPURIOUS POPS
*
17122 0 35 17167 POP STA ITABLE+1 RECEIVED
17123 0 76 00000 LDA 0 MARK
17124 0 43 00454 BRM REPORT
17125 0 20 17205 NOP POPED
17126 0 01 17140 BRU COMMON

*
* PROCESS 156 THROUGH 174
*
17127 0 55 23651 I56174 ADD #20

*
* PROCESS 130 THROUGH 144
*
17130 0 54 23723 I30T44 SUB #161
17131 0 66 00001 RSH 1
17132 0 35 17167 STA ITABLE+1 RECEIVED
17133 0 77*00450 EAX* DIVERT
17134 2 77 37777 EAX #1,2
17135 2 76 00000 LDA 0,2
17136 0 43 00454 BRM REPORT
17137 0 20 17211 NOP SPRINT
```

CPU0 TAP=3.0 01/15 03101 PAGE 366

```
*
* COMMON INTERRUPT ROUTINE
*
COMMON STA ITABLE+2 MARK
17140 0 35 17170 LDA* ITABLE+2
17141 0 76*17170 STA ITABLE+3 INSTRUCTION
17142 0 35 17171 MIN SPUR
17143 0 61 17101 LDX* SPUR
17144 0 71*17101 LDA 0,2
17145 2 76 00000 STA ITABLE EXPECTED
17146 0 35 17166 BRM REPORT REPORT ERROR
17147 0 43 00454 NOP INMSG,4 MESSAGE
17150 4 20 17220 FOUR ITABLE DATA
17151 0 04 17166 BRM CLEAR CLEAR PRESENT INTERRUPT
17152 0 43 17156 BRM ERROR GO TO CONTROL
17153 0 43 00460 NOP CARRET (NO MESSAGE)
17154 0 20 17232 BRU* OBJECT
17155 0 01*00430
```

```

*
* CLEAR PRESENT INTERRUPT
*
17156 0 00 00000 CLEAR PZE 0
17157 0 76 00401 LDA STATUS
17160 0 72 23454 SKA *4 SKIP IF NOT 940
17161 0 11 17163 BRI **2 940
17162 0 01*17163 BRU* **1 925/930
17163 0 20 17163 NOP *
17164 0 02 20*02 EIR * ENABLE INTERRUPTS
17165 0 51 17156 BRR CLEAR RETURN

```

```

*
* MESSAGES
*
17166 0 00 00000 ITABLE PZE 0 INTERRUPTS EXPECTED
17167 0 00 00000 PZE 0 INTERRUPT RECEIVED
17170 0 00 00000 PZE 0 LOCATION AT TIME OF INTERRUPT/TRAP
17171 0 00 00000 PZE 0 INSTRUCTION BEING EXECUTED
17172 52526445 ILLEXB BCD 1 UNDEFINED ILLEGAL OR EXTERNAL INTERRUPT!!
17173 24252631
17174 45252412
17175 31434325
17176 27214312
17177 46511225
17200 67632551
17201 45214312
17202 31456325
17203 51516447
17204 63371212
17205 52624764 POPED BCD 1 SPURIOUS POP!!
17206 51314664
17207 62124746
17210 47371212
17211 52624764 SPRINT BCD 1 SPURIOUS INTERRUPT OR TRAP!!
17212 51314664
17213 62123145

```

```

17214 63255151
17215 64476312
17216 46511263
17217 51214737
17220 52256747 MSG BCD 1 EXPECTED RECEIVED LOCATION CONTENTS !!
17221 25236325
17222 24125125
17223 23253165
17224 25241243
17225 46232163
17226 31464512
17227 23464563
17230 25456362
17231 52371212
17232 52371212 CARRET BCD 1 !!

```

CPU0 TAP=3.0 01/15 03101 PAGE 369

		* UNIT	TABLE	
17233	77760545	DUMMY	EQU	ZERO**
20000	00545		BSS	DUMMY(AND)3777
20001	0 20 20044	UPT	NBP	UIM
20002	0 20 20054		NBP	JAM
20003	0 20 20163		NBP	JVM
20003	0 01 20005		ONE	FAW
20004	*0000000		DATA	40000000
20005	77777777	FAW	DATA	77777777

CPU0 TAP=3.0 01/15 03101 PAGE 370

20006	0 20 20165	FPT0	NBP	FIM0
20007	0 20 20175		NBP	FAM0
20010	0 20 20207		NBP	FVM0
20011	0 01 20013		ONE	FID0
20012	0 00 14000		PZE	FUNC1
20013	40000000	FID0	DATA	40000000
20014	0 20 20211	FPT1	NBP	FIM1
20015	0 20 20220		NBP	FAM1
20016	0 20 20435		NBP	FVM1
20017	0 01 20021		ONE	FID1
20020	0 00 16256		PZE	FUNC2
20021	20000000	FID1	DATA	20000000
20022	0 20 20437	FPT2	NBP	FIM2
20023	0 20 20450		NBP	FAM2
20024	0 20 20510		NBP	FVM2
20025	0 01 20027		ONE	FID2
20026	0 00 16454		PZE	FUNC3
20027	10000000	FID2	DATA	10000000
20030	0 20 20512	FPT3	NBP	FIM3
20031	0 20 20525		NBP	FAM3
20032	0 20 20553		NBP	FVM3
20033	0 01 20035		ONE	FID3
20034	0 00 16730		PZE	FUNC4
20035	04000000	FID3	DATA	04000000
20036	0 20 20555	FPT4	NBP	FIM4
20037	0 20 20567		NBP	FAM4
20040	0 20 20607		NBP	FVM4
20041	0 01 20043		ONE	FID4
20042	0 00 17051		PZE	LAST
20043	02000000	FID4	DATA	02000000

CPUD TAP=3.C 01/15 03101 PAGE 371

20044	52641200	UIM	BCD	' U O = 940 CPU DIAGNOSTIC 2.0''
20045	12401211			
20046	04001223			
20047	47641224			
20050	31212745			
20051	46626931			
20052	23120233			
20053	00371212			
20054	52121212	UAM	BCD	' THIS UNIT CONTAINS THE CPU DIAGNOSTICS.'
20055	12126930			
20056	31621264			
20057	45316912			
20060	23464563			
20061	21314562			
20062	12633025			
20063	12234764			
20064	12243121			
20065	27454662			
20066	63312362			
20067	33121212			
20070	52266445	BCD		' FUNCTION 0 IS A MONITOR MODE INSTRUCTION DIAGNOSTIC'
20071	23633146			
20072	45120012			
20073	31621221			
20074	12444445			
20075	31634451			
20076	12444424			
20077	25123145			
20100	62635164			
20101	23633146			
20102	45122431			
20103	21274546			
20104	62633123			
20105	52266445	BCD		' FUNCTION 1 IS A USER MAP DIAGNOSTIC'
20106	23633146			
20107	45120112			

CPUD TAP=3.C 01/15 03101 PAGE 372

20110	31621221			
20111	12646225			
20112	51124421			
20113	47122431			
20114	21274546			
20115	62633123			
20116	52266445	BCD		' FUNCTION 2 IS A MODE TRANSITION DIAGNOSTIC'
20117	23633146			
20120	45120212			
20121	31621221			
20122	12444424			
20123	25126351			
20124	21456231			
20125	63314445			
20126	12243121			
20127	27454662			
20130	63312312			
20131	52266445	BCD		' FUNCTION 3 IS A PRIVILEGED INSTRUCTION TRAP DIAGNOSTIC'
20132	23633146			
20133	45120312			
20134	31621221			
20135	12475131			
20136	65314325			
20137	27252412			
20140	31456263			
20141	51642763			
20142	31464512			
20143	63512147			
20144	12243121			
20145	27454662			
20146	63312312			
20147	52266445	BCD		' FUNCTION 4 IS A REAL TIME CLOCK DIAGNOSTIC'
20150	23633146			
20151	45120412			
20152	31621221			
20153	12512521			

```

CPU0  TAP=3.C  01/15  03101  PAGE 373

20154  43126331
20155  44251223
20156  43462342
20157  12243121
20160  27454462
20161  63312312
20162  52371212      BCD
20163  52122421      UV"  BCD  ' FAW '
20164  66523712
20165  52261200      FIMO BCD  ' F JO = MONITOR MODE DIAGNOSTIC '
20166  00124012
20167  44464531
20170  63465112
20171  44462425
20172  12243121
20173  27454462
20174  63312337
20175  52121212      FAMD BCD  ' THIS FUNCTION IS NOT COMPLETE YET '
20176  12126330
20177  31621226
20200  64452363
20201  31464512
20202  31621245
20203  46631223
20204  46444743
20205  25632512
20206  70256337
20207  52122431      FVMO BCD  ' FIDO '
20210  24005237
20211  52261200      FIMI BCD  ' F OI = USER MAP DIAGNOSTIC '
20212  01124012
20213  64622551
20214  12442147
20215  12243121
20216  27454462
20217  63312337

```

```

CPU0  TAP=3.C  01/15  03101  PAGE 374

20220  52321212      FAMI BCD  ' THIS FUNCTION DIAGNOSES FAULTS IN THE 960 USER '
20221  12121263
20222  30316212
20223  26644523
20224  63314445
20225  12243121
20226  27454462
20227  25621226
20230  21644363
20231  62123145
20232  12633025
20233  12110400
20234  12646225
20235  51121212
20236  52214524      BCD  ' AND MONITOR MAPS. '
20237  12444445
20240  31634651
20241  12442147
20242  62331212
20243  52121212      BCD  ' THE DIAGNOSES IS DONE USING THE READ ONLY (RO) '
20244  12126330
20245  25122431
20246  21274546
20247  62256212
20250  31621224
20251  46452512
20252  64623145
20253  27126330
20254  25125125
20255  21241246
20256  45437012
20257  74514663
20260  34121212
20261  52214524      BCD  ' AND OUT OF BOUNDS (OOBT) MEMORY TRAPS. IT IS '
20262  12466463
20263  12462412

```

CPU0 TAP=3.C 01/15 03101 PAGE 375

20264	22466445		
20265	24621274		
20266	46462263		
20267	34124425		
20270	44465170		
20271	12635121		
20272	47623312		
20273	12316312		
20274	31621212		
20275	52314524	BCD	' INDEPENDENT OF THE OPERATION OF UPPER MEMORY.'
20276	25472545		
20277	24254563		
20300	12462612		
20301	63302512		
20302	46472551		
20303	21633146		
20304	45124626		
20305	12644747		
20306	25511244		
20307	25444651		
20310	70331212		
20311	52121212	BCD	' CORRECT OPERATION IS DEPENDENT ON THE MACHINE.'
20312	12122346		
20313	51512523		
20314	63124647		
20315	25512163		
20316	31464512		
20317	31621224		
20320	25472545		
20321	24254563		
20322	12464512		
20323	63302512		
20324	44212330		
20325	31462512		
20326	52222531	BCD	' BEING ABLE TO PERFORM THE 940 INSTRUCTION DIAGNOSTIC'
20327	45271221		

CPU0 TAP=3.C 01/15 03101 PAGE 376

20330	22432512		
20331	63461247		
20332	25512646		
20333	51441263		
20334	30251211		
20335	04001231		
20336	45626351		
20337	64236331		
20340	46451224		
20341	31212745		
20342	46626331		
20343	23121212		
20344	52214524	BCD	' AND MEMORY LOCATIONS 0 = 3777 OPERATING CORRECTLY.'
20345	12442544		
20346	46517012		
20347	43462321		
20350	63314645		
20351	62120012		
20352	40120307		
20353	07070712		
20354	46472551		
20355	21633145		
20356	27122346		
20357	51512523		
20360	63437033		
20361	52121212	BCD	' AT ERROR HALTS!'
20362	12122163		
20363	12255151		
20364	46511230		
20365	21436362		
20366	15121212		
20367	52211213	BCD	' A # ACTUAL TRAP ID'
20370	12212363		
20371	64214312		
20372	63512147		
20373	12312412		

CPU0	TAP-3.C	01/15	03101	PAGE 377
20374	52221213		BCD	' B * CORRECT TRAP ID'
20375	12234651			
20376	51252363			
20377	12635121			
20400	47123124			
20401	52671213		BCD	' X * TEST LOCATION'
20402	12632562			
20403	63124346			
20404	23216331			
20405	46451212			
20406	52121212		BCD	' ERROR MESSAGES WILL STATE SIGNAL NAMES AND'
20407	12122551			
20410	51465112			
20411	44256262			
20412	21272562			
20413	12663143			
20414	43126263			
20415	21632512			
20416	62312745			
20417	21431245			
20420	21442562			
20421	12214524			
20422	52444624		BCD	' MODULE LOCATIONS OF THE PROBABLE FAULT.'
20423	64432512			
20424	43452321			
20425	63314645			
20426	62124624			
20427	12633025			
20430	12475146			
20431	22212247			
20432	25122621			
20433	64436333			
20434	52121237		BCD	' F1'
20435	52122631	FVM1	BCD	' FID1''
20436	24015237			
20437	52261200	FIM2	BCD	' F02 * MODE TRANSITION DIAGNOSTIC''

CPU0	TAP-3.C	01/15	03101	PAGE 378
20440	02124012			
20441	44462425			
20442	12635121			
20443	45623163			
20444	31464512			
20445	24312127			
20446	45466263			
20447	31233712			
20450	52121212	FAM2	BCD	' THIS FUNCTION DIAGNOSES FAULTS IN THE'
20451	12126330			
20452	31621226			
20453	64452363			
20454	31464512			
20455	24312127			
20456	45466225			
20457	62122621			
20460	64436362			
20461	12314512			
20462	63302512			
20463	52444645		BCD	' MONITOR TO USER TRANSITIONS, IT ALSO CHECKS THE'
20464	31634651			
20465	12634612			
20466	64622551			
20467	12635121			
20470	45623163			
20471	31464562			
20472	33123163			
20473	12214362			
20474	46122330			
20475	25234262			
20476	12633025			
20477	52444645		BCD	' MONITOR TO USER TRANSITION TRAP''
20500	31634651			
20501	12634612			
20502	64622551			
20503	12635121			

CPU0 TAP=3.0 01/15 03101 PAGE 379

20504	45623163				
20505	31464512				
20506	63512147				
20507	37121212				
20510	52122631	FVM2	BCD	' FID2 ''	
20511	24025237				
20512	52261200	FIM3	BCD	' F 03 = PRIVILEGED INSTRUCTION DIAGNOSTIC!!	
20513	03124012				
20514	47513165				
20515	31432527				
20516	25241231				
20517	45626751				
20520	64236331				
20521	46451224				
20522	31212745				
20523	46626331				
20524	23371212				
20525	52121212	FAM3	BCD	' THIS FUNCTION CHECKS THAT THE PRIVILEGED INSTRUCTION!	
20526	12126330				
20527	31621226				
20530	64452763				
20531	31444512				
20532	23302523				
20533	42621263				
20534	30216312				
20535	63302512				
20536	47513165				
20537	31432527				
20540	25241231				
20541	45626751				
20542	64236331				
20543	46451212				
20544	52635121	BCD		' TRAP IS WORKING PROPERLY!!	
20545	47123162				
20546	12664651				
20547	42314527				

CPU0 TAP=3.0 01/15 03101 PAGE 380

20550	12475146				
20551	47255143				
20552	70333712				
20553	52122631	FVM3	BCD	' FID3 ''	
20554	24035237				
20555	52261200	FIM4	BCD	' F 04 = 940 REAL TIME CLOCK DIAGNOSTIC!!	
20556	04124012				
20557	11040012				
20560	51252143				
20561	12633144				
20562	25122343				
20563	46234212				
20564	24312127				
20565	45466263				
20566	31233712				
20567	52121212	FAM4	BCD	' THIS FUNCTION DIAGNOSES FAULTS IN THE REAL TIME!	
20570	12126330				
20571	31621226				
20572	64452363				
20573	31464512				
20574	24312127				
20575	45466225				
20576	62122421				
20577	64436362				
20600	12314512				
20601	63302512				
20602	51252143				
20603	12633144				
20604	25121212				
20605	52234346		BCD	' CLOCK, ''	
20606	23423337				
20607	52122631	FVM4	BCD	' FID4 ''	
20610	24045237				

CPUD TAP=3.0 01/15 03101 PAGE 381

* ERROR MESSAGES
DSCWP BCD ' DISC IS SOFTWARE WRITE PROTECTED'
20611 52243162
20612 23123162
20613 12624426
20614 63662151
20615 25126451
20616 31632512
20617 47514463
20620 25236325
20621 24371212
20622 52243162 DSCNWP BCD ' DISC IS ---NOT--- SOFTWARE WRITE PROTECTED'
20623 23123162
20624 12404040
20625 45466740
20626 40401262
20627 46266366
20630 21512512
20631 66513163
20632 25124751
20633 46632423
20634 63252437
20635 52121212
20636 52512124 RADWP BCD ' RAD IS SOFTWARE WRITE PROTECTED'
20637 12316212
20640 62462463
20641 66715125
20642 12665131
20643 63251247
20644 51466325
20645 23632524
20646 37121212
20647 52512124 RADNWP BCD ' RAD IS ---NOT--- SOFTWARE WRITE PROTECTED'
20650 12316212
20651 47404045
20652 46634040
20653 40126246

CPUD TAP=3.0 01/15 03101 PAGE 382

20654 26636621
20655 51251266
20656 51316325
20657 12475146
20660 63252763
20661 25243712
20662 52475125 MSG BCD ' PRETEST'
20663 63256263
20664 52020324 M1 BCD ' 23022=P31''
20665 02024047
20666 03013712
20667 52020324 M2 BCD ' 23023=P31''
20670 02034047
20671 03013712
20672 52020324 M3 BCD ' 23026=P36''
20673 02064047
20674 03063712
20675 52030024 M4 BCD ' 30019=P36''
20676 01114047
20677 03063712
20700 52030123 M5 BCD ' 31024=P36''
20701 02044047
20702 03063712
20703 52030123 M6 BCD ' 31023=P36''
20704 02034047
20705 03063712
20706 52020324 M7 BCD ' 23014=P31''
20707 01044047
20710 03013712
20711 52020324 M8 BCD ' 23020,24042=P31''
20712 02007302
20713 04240402
20714 40470301
20715 37121212
20716 52020522 M9 BCD ' 25828=P31''
20717 02104047

CPU0	TAP=3.0	01/15	03101	PAGE 383
20720	03013712			
20721	52020522	M10	BCD	' 25835=P311'
20722	03054047			
20723	03013712			
20724	52020123	M11	BCD	' 21011=P311'
20725	01014047			
20726	03013712			
20727	52020123	M12	BCD	' 2108=P311'
20730	10404703			
20731	01371212			
20732	52020122	M13	BCD	' 21812=P311'
20733	01024047			
20734	03013712			
20735	52020122	M14	BCD	' 21808=P311'
20736	00104047			
20737	03013712			
20740	52020122	M15	BCD	' 21831=P361'
20741	03014047			
20742	03063712			
20743	52020122	M16	BCD	' 21832=P361'
20744	03024047			
20745	03063712			
20746	52020124	M17	BCD	' 21012=P361'
20747	01024047			
20750	03063712			
20751	52020124	M18	BCD	' 2108=P361'
20752	10404703			
20753	06371212			
20754	52020123	M19	BCD	' 2103=P361'
20755	030404703			
20756	06371212			
20757	52020523	M20	BCD	' 2502=P361'
20760	02404703			
20761	06371212			
20762	52020523	M21	BCD	' 25038=P361'
20763	03104047			

CPU0	TAP=3.0	01/15	03101	PAGE 384
20764	03063712			
20765	52020523	M22	BCD	' 25036=P361'
20766	03064047			
20767	03063712			
20770	52020523	M23	BCD	' 25014=P361'
20771	01044047			
20772	03063712			
20773	52020523	M23A	BCD	' 25018=P361'
20774	01104047			
20775	03063712			
20776	52020523	M24	BCD	' 25028=P361'
20777	02104047			
21000	03063712			
21001	52030123	M25	BCD	' 31022=P361'
21002	02024047			
21003	03063712			
21004	52021124	M26	BCD	' 29030=P361'
21005	03004047			
21006	03063712			
21007	52020124	M27	BCD	' 21039=P361'
21010	03114047			
21011	03063712			
21012	52021124	M28	BCD	' 29032=P361'
21013	03024047			
21014	03063712			
21015	52020424	M29	BCD	' 2409=P361'
21016	11404703			
21017	06371212			
21020	52020422	M30	BCD	' 24834=P461'
21021	03044047			
21022	04063712			
21023	52020422	M31	BCD	' 24838=P461'
21024	03104047			
21025	04063712			
21026	52030024	M32	BCD	' 30010=P361'
21027	01004047			

CPU0	TAP=3.0	01/15	03101	PAGE 385
21030	03063712			
21031	52031123	M33	BCD	' 39C27=P31''
21032	02074047			
21033	03013712			
21034	52021123	M34	BCD	' 29C5=P46''
21035	05404704			
21036	06371212			
21037	52030122	M35	BCD	' 31B42,24D13=P31''
21040	04027302			
21041	04240109			
21042	40470301			
21043	37121212			
21044	52020522	M36	BCD	' 25B2=P31''
21045	02404703			
21046	01371212			
21047	52020522	M37	BCD	' 25B20=P31''
21050	02004047			
21051	03013712			
21052	52020324	M38	BCD	' 23D16=P31''
21053	01064047			
21054	03013712			
21055	52020122	M39	BCD	' 21B29=P31''
21056	02114047			
21057	03013712			
21060	52020122	M40	BCD	' 21B28=P31''
21061	02104047			
21062	03013712			
21063	52030122	M41	BCD	' 31B42=P31''
21064	04024047			
21065	03013712			
21066	52031123	M42	BCD	' 39C27=P31''
21067	02074047			
21070	03013712			
21071	52030122	M43	BCD	' 31B42=P31''
21072	04024047			
21073	03013712			

CPU0	TAP=3.0	01/15	03101	PAGE 386
21074	52020324	M44	BCD	' 23D16=P31''
21075	01064047			
21076	03013712			
21077	52020123	M45	BCD	' 21C28=P31''
21100	02104047			
21101	03013712			
21102	52021123	M46	BCD	' 29C15=P46''
21103	01054047			
21104	04063712			
21105	52020424	M47	BCD	' 24D9=P41''
21106	11404704			
21107	37121212			
21110	52020424	M48	BCD	' 24D21=P49''
21111	02014047			
21112	04113712			
21113	52030022	M49	BCD	' 30B16=P31''
21114	01064047			
21115	03013712			
21116	52020524	M50	BCD	' 25D12=P31''
21117	01024047			
21120	03013712			
21121	52020223	M51	BCD	' 22C43=P31''
21122	04034047			
21123	03013712			
21124	52020522	M52	BCD	' 25B30=P31''
21125	03004047			
21126	03013712			
21127	52020522	M53	BCD	' 25B32=P31''
21130	03024047			
21131	03013712			
21132	52020123	M54	BCD	' 21C21=P31''
21133	02014047			
21134	03013712			
21135	52020123	M55	BCD	' 21C23=P31''
21136	02034047			
21137	03013712			

CPU0	TAP=3.0	01/15	03101	PAGE 387
21140	52020123	M56	BCD	' 21C22=P31''
21141	02024047			
21142	03013712			
21143	52020123	M57	BCD	' 21C26=P31''
21144	02064047			
21145	03013712			
21146	52020024	M58	BCD	' 20D=P46''
21147	40470406			
21150	37121212			
21151	52020624	M59	BCD	' 26D=P46''
21152	40470406			
21153	37121212			
21154	52010324	M60	BCD	' 13DP47''
21155	47040737			
21156	52010624	M61	BCD	' 16D=P47''
21157	40470407			
21160	37121212			
21161	52072440	M62	BCD	' 7D=P47''
21162	47040737			
21163	52010024	M63	BCD	' 10D=P47''
21164	40470407			
21165	37121212			
21166	52012440	M64	BCD	' 1D=P47''
21167	47040737			
21170	52042440	M65	BCD	' 4D=P47,P48''
21171	47040773			
21172	47041037			
21173	52062440	M66	BCD	' 6D=P48''
21174	47041037			
21175	52010024	M67	BCD	' 10D=P48''
21176	40470410			
21177	37121212			
21200	52010024	M68	BCD	' 12D=P48''
21201	40470410			
21202	37121212			
21203	52010624	M69	BCD	' 16D=P48''

CPU0	TAP=3.0	01/15	03101	PAGE 388
21204	40470410			
21205	37121212			
21206	52011024	M70	BCD	' 18D=P48''
21207	40470410			
21210	37121212			
21211	52020624	M71	BCD	' 26D=P49''
21212	40470411			
21213	37121212			
21214	52030124	M72	BCD	' 31D=P49''
21215	40470411			
21216	37121212			
21217	52020024	M73	BCD	' 20D=P46''
21220	40470406			
21221	37121212			
21222	52020624	M74	BCD	' 26D=P46''
21223	40470406			
21224	37121212			
21225	52010324	M75	BCD	' 13DP47''
21226	47040737			
21227	52010624	M76	BCD	' 16D=P47''
21230	40470407			
21231	37121212			
21232	52072440	M77	BCD	' 7D=P47''
21233	47040737			
21234	52010024	M78	BCD	' 10D=P47''
21235	40470407			
21236	37121212			
21237	52012440	M79	BCD	' 1D=P47''
21240	47040737			
21241	52042440	M80	BCD	' 4D=P47,P48''
21242	47040773			
21243	47041037			
21244	52062440	M81	BCD	' 6D=P48''
21245	47041037			
21246	52010024	M82	BCD	' 10D=P48''
21247	40470410			

CPUO	TAP=3.C	01/15	03101	PAGE 389
21250	37121212			
21251	52010224	M83	BCD	' 12D=P481'
21252	40470410			
21253	37121212			
21254	52010624	M84	BCD	' 16D=P481'
21255	40470410			
21256	37121212			
21257	52011024	M85	BCD	' 18D=P481'
21260	40470410			
21261	37121212			
21262	52020624	M86	BCD	' 26D=P491'
21263	40470411			
21264	37121212			
21265	52030124	M87	BCD	' 31D=P491'
21266	40470411			
21267	37121212			
21270	52020022	M88	BCD	' 20B=P311'
21271	40470301			
21272	37121212			
21273	52020022	M89	BCD	' 20B=P311'
21274	40470301			
21275	37121212			
21276	52020022	M90	BCD	' 20B=P311'
21277	40470301			
21300	37121212			
21301	52020022	M91	BCD	' 20B=P311'
21302	40470301			
21303	37121212			
21304	52020622	M92	BCD	' 26B=P311'
21305	40470301			
21306	37121212			
21307	52020622	M93	BCD	' 26B=P311'
21310	47030137			
21311	52010322	M94	BCD	' 13B=P321'
21312	40470302			
21313	37121212			

CPUO	TAP=3.C	01/15	03101	PAGE 390
21314	52010322	M95	BCD	' 13B=P321'
21315	40470302			
21316	37121212			
21317	52010322	M96	BCD	' 13B=P321'
21320	40470302			
21321	37121212			
21322	52010322	M97	BCD	' 13B=P321'
21323	40470302			
21324	37121212			
21325	52010622	M98	BCD	' 16B=P321'
21326	40470302			
21327	37121212			
21330	52010622	M99	BCD	' 16B=P321'
21331	40470302			
21332	37121212			
21333	52072240	M100	BCD	' 7B=P321'
21334	47030237			
21335	52072240	M101	BCD	' 7B=P321'
21336	47030237			
21337	52072240	M102	BCD	' 7B=P321'
21340	47030237			
21341	52072240	M103	BCD	' 7B=P321'
21342	47030237			
21343	52010022	M104	BCD	' 10B=P321'
21344	40470302			
21345	37121212			
21346	52010022	M105	BCD	' 10B=P321'
21347	40470302			
21350	37121212			
21351	52012240	M106	BCD	' 1B=P321'
21352	47030237			
21353	52012240	M107	BCD	' 1B=P321'
21354	47030237			
21355	52012240	M108	BCD	' 1B=P321'
21356	47030237			
21357	52012240	M109	BCD	' 1B=P321'

CPU0	TAP=3.0	01/15	03101	PAGE 391
21360	47030237			
21361	52112240	M110	BCD	' 98=P32''
21362	47030237			
21363	52112240	M111	BCD	' 98=P32''
21364	47030237			
21365	52042240	M112	BCD	' 48=P33''
21366	47030337			
21367	52042240	M113	BCD	' 48=P33''
21370	47030337			
21371	52062240	M114	BCD	' 68=P33''
21372	47030337			
21373	52062240	M115	BCD	' 68=P33''
21374	47030337			
21375	52062240	M116	BCD	' 68=P33''
21376	47030337			
21377	52062240	M117	BCD	' 68=P33''
21400	47030337			
21401	52010022	M118	BCD	' 108=P33''
21402	40470303			
21403	37121212			
21404	52010022	M119	BCD	' 108=P33''
21405	40470303			
21406	37121212			
21407	52010222	M120	BCD	' 128=P33''
21410	40470303			
21411	37121212			
21412	52010222	M121	BCD	' 128=P33''
21413	40470303			
21414	37121212			
21415	52010222	M122	BCD	' 128=P33''
21416	40470303			
21417	37121212			
21420	52010222	M123	BCD	' 128=P33''
21421	40470303			
21422	37121212			
21423	52010622	M124	BCD	' 168=P33''

CPU0	TAP=3.0	01/15	03101	PAGE 392
21424	40470303			
21425	37121212			
21426	52010622	M125	BCD	' 168=P33''
21427	40470303			
21430	37121212			
21431	52011022	M126	BCD	' 188=P33''
21432	40470303			
21433	37121212			
21434	52011022	M127	BCD	' 188=P33''
21435	40470303			
21436	37121212			
21437	52011022	M128	BCD	' 188=P33''
21440	40470303			
21441	37121212			
21442	52011022	M129	BCD	' 188=P33''
21443	40470303			
21444	37121212			
21445	52020622	M130	BCD	' 268=P34''
21446	40470304			
21447	37121212			
21450	52020622	M131	BCD	' 268=P34''
21451	40470304			
21452	37121212			
21453	52030222	M132	BCD	' 328=P34''
21454	40470304			
21455	37121212			
21456	52030222	M133	BCD	' 328=P34''
21457	40470304			
21460	37121212			
21461	52020023	M134	BCD	' 20C=P36''
21462	40470306			
21463	37121212			
21464	52020023	M135	BCD	' 20C=P36''
21465	40470306			
21466	37121212			
21467	52020023	M136	BCD	' 20C=P36''

CPU0	TAP=3.C	01/15	03:01	PAGE 393
21470	4047C306			
21471	37121212			
21472	5202C623	M137	BCD	' 20C=P3611
21473	4047C306			
21474	37121212			
21475	5202C623	M138	BCD	' 26C=P3611
21476	4047C306			
21477	37121212			
21500	5202C623	M139	BCD	' 26C=P3611
21501	4047C306			
21502	37121212			
21503	5202C623	M140	BCD	' 26C=P3611
21504	4047C306			
21505	37121212			
21506	5202C623	M141	BCD	' 26C=P3611
21507	4047C306			
21510	37121212			
21511	5201C323	M142	BCD	' 13C=P3711
21512	4047C307			
21513	37121212			
21514	5201C323	M143	BCD	' 13C=P3711
21515	4047C307			
21516	37121212			
21517	5201C323	M144	BCD	' 15C=P3711
21520	4047C307			
21521	37121212			
21522	5201C323	M145	BCD	' 15C=P3711
21523	4047C307			
21524	37121212			
21525	5201C323	M146	BCD	' 15C=P3711
21526	4047C307			
21527	37121212			
21530	5201C323	M147	BCD	' 15C=P3711
21531	4047C307			
21532	37121212			
21533	52072340	M148	BCD	' 7C=P3811

CPU0	TAP=3.C	01/15	03:01	PAGE 394
21534	47031037			
21535	52072340	M149	BCD	' 7C=P3811
21536	47031037			
21537	52112340	M150	BCD	' 9C=P3811
21540	47031037			
21541	52112340	M151	BCD	' 9C=P3811
21542	47031037			
21543	52112340	M152	BCD	' 9C=P3811
21544	47031037			
21545	52112340	M153	BCD	' 9C=P3811
21546	47031037			
21547	52012340	M154	BCD	' 1C=P3911
21550	47031137			
21551	52224523	M155	BCD	' 8C=000200001C=P3911
21552	12000000			
21553	02000000			
21554	00012340			
21555	47031137			
21556	52032340	M156	BCD	' 3C=P3911
21557	47031137			
21560	52032340	M157	BCD	' 3C=P3911
21561	47031137			
21562	52032340	M158	BCD	' 3C=P3911
21563	47031137			
21564	52032340	M159	BCD	' 3C=P3911
21565	47031137			
21566	52042340	M160	BCD	' 4C=P4011
21567	47040037			
21570	52042340	M161	BCD	' 4C=P4011
21571	47040037			
21572	52062340	M162	BCD	' 6C=P4011
21573	47040037			
21574	52062340	M163	BCD	' 6C=P4011
21575	47040037			
21576	52062340	M164	BCD	' 6C=P4011
21577	47040037			

CPUO	TAP=3.C	01/15	03101	PAGE 395
21600	52062240	M165	BCD	' 6C=P40''
21601	47040037			
21602	52010023	M166	BCD	' 10C=P41''
21603	40470401			
21604	37121212			
21605	52010023	M167	BCD	' 10C=P41''
21606	40470401			
21607	37121212			
21610	52010223	M168	BCD	' 12C=P41''
21611	40470401			
21612	37121212			
21613	52010223	M169	BCD	' 12C=P41''
21614	40470401			
21615	37121212			
21616	52010223	M170	BCD	' 12C=P41''
21617	40470401			
21620	37121212			
21621	52010223	M171	BCD	' 12C=P41''
21622	40470401			
21623	37121212			
21624	52010423	M172	BCD	' 16C=P42''
21625	40470402			
21626	37121212			
21627	52010423	M173	BCD	' 16C=P42''
21630	40470402			
21631	37121212			
21632	52011023	M174	BCD	' 18C=P42''
21633	40470402			
21634	37121212			
21635	52011023	M175	BCD	' 18C=P42''
21636	40470402			
21637	37121212			
21640	52030023	M176	BCD	' 30C=P43''
21641	40470403			
21642	37121212			
21643	52030023	M177	BCD	' 30C=P43''

CPUO	TAP=3.C	01/15	03101	PAGE 396
21644	40470403			
21645	37121212			
21646	52030023	M178	BCD	' 30C=P43''
21647	40470403			
21650	37121212			
21651	52030023	M179	BCD	' 30C=P43''
21652	23404704			
21653	03371212			
21654	52030023	M180	BCD	' 32C=P43''
21655	40470403			
21656	37121212			
21657	52030023	M181	BCD	' 32C=P43''
21660	40470403			
21661	37121212			
21662	52020022	M182	BCD	' 20B=P31''
21663	40470301			
21664	37121212			
21665	52020022	M183	BCD	' 20B=P31''
21666	40470301			
21667	37121212			
21670	52020022	M184	BCD	' 20B=P31''
21671	40470301			
21672	37121212			
21673	52020022	M185	BCD	' 20B=P31''
21674	40470301			
21675	37121212			
21676	52020022	M186	BCD	' 20B=P31''
21677	40470301			
21700	37121212			
21701	52020022	M187	BCD	' 20B=P31''
21702	40470301			
21703	37121212			
21704	52020022	M188	BCD	' 20B=P31''
21705	40470301			
21706	37121212			
21707	52020022	M189	BCD	' 26B=P31''

CPU0	TAP-3.0	01/15	03101	PAGE 397
21710	40470301			
21711	37121212			
21712	52020622	M190	BCD	' 268-P32''
21713	47030137			
21714	52010322	M191	BCD	' 138-P32''
21715	40470302			
21716	37121212			
21717	52010322	M192	BCD	' 138-P32''
21720	40470302			
21721	37121212			
21722	52010322	M193	BCD	' 138-P32''
21723	40470302			
21724	37121212			
21725	52010322	M194	BCD	' 138-P32''
21726	40470302			
21727	37121212			
21730	52010622	M195	BCD	' 168-P32''
21731	40470302			
21732	37121212			
21733	52010622	M196	BCD	' 168-P32''
21734	40470302			
21735	37121212			
21736	52072240	M197	BCD	' 78-P32''
21737	47030237			
21740	52072240	M198	BCD	' 78-P32''
21741	47030237			
21742	52072240	M199	BCD	' 78-P32''
21743	47030237			
21744	52072240	M200	BCD	' 78-P32''
21745	47030237			
21746	52010622	M201	BCD	' 108-P32''
21747	40470302			
21750	37121212			
21751	52010622	M202	BCD	' 108-P32''
21752	40470302			
21753	37121212			

CPU0	TAP-3.0	01/15	03101	PAGE 398
21754	52012240	M203	BCD	' 18-P32''
21755	47030237			
21756	52012240	M204	BCD	' 18-P32''
21757	47030237			
21760	52012240	M205	BCD	' 18-P32''
21761	47030237			
21762	52012240	M206	BCD	' 18-P32''
21763	47030237			
21764	52112240	M207	BCD	' 98-P32''
21765	47030237			
21766	52112240	M208	BCD	' 98-P32''
21767	47030237			
21770	52042240	M209	BCD	' 48-P33''
21771	47030237			
21772	52042240	M210	BCD	' 48-P33''
21773	47030237			
21774	52062240	M211	BCD	' 68-P33''
21775	47030237			
21776	52062240	M212	BCD	' 68-P33''
21777	47030237			
22000	52062240	M213	BCD	' 68-P33''
22001	47030237			
22002	52062240	M214	BCD	' 68-P33''
22003	47030237			
22004	52010622	M215	BCD	' 108-P33''
22005	40470303			
22006	37121212			
22007	52010622	M216	BCD	' 108-P33''
22010	40470303			
22011	37121212			
22012	52010622	M217	BCD	' 128-P33''
22013	40470303			
22014	37121212			
22015	52010622	M218	BCD	' 128-P33''
22016	40470303			
22017	37121212			

CPU0	TAP=3.0	01/15	03101	PAGE 399
22020	52010222	M219	BCD	' 128=P331'
22021	40470303			
22022	37121212			
22023	52010222	M220	BCD	' 128=P331'
22024	40470303			
22025	37121212			
22026	52010622	M221	BCD	' 168=P331'
22027	40470303			
22030	37121212			
22031	52010622	M222	BCD	' 168=P331'
22032	40470303			
22033	37121212			
22034	52011022	M223	BCD	' 188=P331'
22035	40470303			
22036	37121212			
22037	52011022	M224	BCD	' 188=P331'
22040	40470303			
22041	37121212			
22042	52011022	M225	BCD	' 188=P331'
22043	40470303			
22044	37121212			
22045	52011022	M226	BCD	' 188=P331'
22046	40470303			
22047	37121212			
22050	52020A22	M227	BCD	' 268=P341'
22051	40470304			
22052	37121212			
22053	52020622	M228	BCD	' 268=P341'
22054	40470304			
22055	37121212			
22056	52030222	M229	BCD	' 328=P341'
22057	40470304			
22060	37121212			
22061	52030222	M230	BCD	' 328=P341'
22062	40470304			
22063	37121212			

CPU0	TAP=3.0	01/15	03101	PAGE 400
22064	52020023	M231	BCD	' 20C=P361'
22065	40470306			
22066	37121212			
22067	52020023	M232	BCD	' 20C=P361'
22070	40470306			
22071	37121212			
22072	52020023	M233	BCD	' 20C=P361'
22073	40470306			
22074	37121212			
22075	52020023	M234	BCD	' 20C=P361'
22076	40470306			
22077	37121212			
22100	52020623	M235	BCD	' 26C=P361'
22101	40470306			
22102	37121212			
22103	52020A23	M236	BCD	' 26C=P361'
22104	40470306			
22105	37121212			
22106	52020623	M237	BCD	' 26C=P361'
22107	40470306			
22110	37121212			
22111	52020623	M238	BCD	' 26C=P361'
22112	40470306			
22113	37121212			
22114	52010323	M239	BCD	' 13C=P371'
22115	40470307			
22116	37121212			
22117	52010323	M240	BCD	' 13C=P371'
22120	40470307			
22121	37121212			
22122	52010523	M241	BCD	' 15C=P371'
22123	40470307			
22124	37121212			
22125	52010523	M242	BCD	' 15C=P371'
22126	40470307			
22127	37121212			

CPU0	TAP=3.C	01/15	03101	PAGE 401
22130	52010523	M243	BCD	' 15C=P371'
22131	40470307			
22132	37121212			
22133	52010523	M244	BCD	' 15C=P371'
22134	40470307			
22135	37121212			
22136	52072340	M245	BCD	' 7C=P381'
22137	47031037			
22140	52072340	M246	BCD	' 7C=P381'
22141	47031037			
22142	52112340	M247	BCD	' 9C=P381'
22143	47031037			
22144	52112340	M248	BCD	' 9C=P381'
22145	47031037			
22146	52112340	M249	BCD	' 9C=P381'
22147	47031037			
22150	52112340	M250	BCD	' 9C=P381'
22151	47031037			
22152	52012340	M251	BCD	' 1C=P391'
22153	47031137			
22154	52012340	M252	BCD	' 1C=P391'
22155	47031137			
22156	52032340	M253	BCD	' 3C=P391'
22157	47031137			
22160	52032340	M254	BCD	' 3C=P391'
22161	47031137			
22162	52032340	M255	BCD	' 3C=P391'
22163	47031137			
22164	52032340	M256	BCD	' 3C=P391'
22165	47031137			
22166	52042340	M257	BCD	' 4C=P401'
22167	47040037			
22170	52042340	M258	BCD	' 4C=P401'
22171	47040037			
22172	52062340	M259	BCD	' 6C=P401'
22173	47040037			

CPU0	TAP=3.C	01/15	03101	PAGE 402
22174	52062340	M260	BCD	' 6C=P401'
22175	47040037			
22176	52062340	M261	BCD	' 6C=P401'
22177	47040037			
22200	52062340	M262	BCD	' 6C=P401'
22201	47040037			
22202	52010023	M263	BCD	' 10C=P411'
22203	40470401			
22204	37121212			
22205	52010023	M264	BCD	' 10C=P411'
22206	40470401			
22207	37121212			
22210	52010023	M265	BCD	' 12C=P411'
22211	40470401			
22212	37121212			
22213	52010023	M266	BCD	' 12C=P411'
22214	40470401			
22215	37121212			
22216	52010023	M267	BCD	' 12C=P411'
22217	40470401			
22220	37121212			
22221	52010023	M268	BCD	' 12C=P411'
22222	40470401			
22223	37121212			
22224	52010623	M269	BCD	' 16C=P421'
22225	40470402			
22226	37121212			
22227	52010623	M270	BCD	' 16C=P421'
22230	40470402			
22231	37121212			
22232	52011023	M271	BCD	' 18C=P421'
22233	40470402			
22234	37121212			
22235	52011023	M272	BCD	' 18C=P421'
22236	40470402			
22237	37121212			

CPUO	TAP=3.C	01/15	03101	PAGE 403
22240	52030023	M273	BCD	' 30C=P43''
22241	40470403			
22242	37121212			
22243	52030023	M274	BCD	' 30C=P43''
22244	40470403			
22245	37121212			
22246	52030023	M275	BCD	' 30C,27D=P43''
22247	73020724			
22250	40470403			
22251	37121212			
22252	52030023	M276	BCD	' 32C,25B,31B=P43''
22253	73020724			
22254	73030122			
22255	40470403			
22256	37121212			
22257	52030023	M277	BCD	' 32C,25B,31B=P43''
22260	73020724			
22261	73030122			
22262	40470403			
22263	37121212			
22264	52030023	M278	BCD	' 32C,19B,27C=P43''
22265	73011122			
22266	73020724			
22267	40470403			
22270	37121212			
22271	52030023	M279	BCD	' 32C,19B,27C=P43''
22272	73011122			
22273	73020724			
22274	40470403			
22275	37121212			
22276	52020022	M280	BCD	' 20B,33D=P31''
22277	73030122			
22300	73020724			
22301	01371212			
22302	52020022	M281	BCD	' 20B,33D=P31''
22303	73030122			

CPUO	TAP=3.C	01/15	03101	PAGE 404
22304	40470301			
22305	37121212			
22306	52020022	M282	BCD	' 20B=P31,34B=P34''
22307	40470301			
22310	73030422			
22311	40470304			
22312	37121212			
22313	52020022	M283	BCD	' 20B=P31,34B=P34''
22314	40470301			
22315	73030422			
22316	40470304			
22317	37121212			
22320	52030524	MADDR	BCD	' 35D,36D,37D,39D=P53 35C,36C,37C,38C,35E,36E,37E,38E=P52''
22321	73030624			
22322	73030724			
22323	73031124			
22324	40470503			
22325	12030523			
22326	73030623			
22327	73030723			
22330	73031023			
22331	73030525			
22332	73030625			
22333	73030725			
22334	73031025			
22335	40470502			
22336	37121212			
22337	52462240	TM1A	BCD	' 0B=58F,58C,49F,52C,44C 5FM=59F,58F'
22340	05102673			
22341	05102373			
22342	04117673			
22343	05022373			
22344	04042312			
22345	62264440			
22346	05112673			
22347	05102612			

CPU0	TAP=3.C	01/15	03101	PAGE 405
22350	51514301		BCD	'RRL1=17F,16F,29D,25D TRAP=58B RLOF=49A''
22351	40010726			
22352	73010626			
22353	73021124			
22354	73020524			
22355	12635121			
22356	47400510			
22357	22125143			
22360	00264004			
22361	11213712			
22362	52002240	TM1B	BCD	' 0B=58F,58C,49F,52C,44C SFM=59F,58F '
22363	05102673			
22364	05102373			
22365	04112673			
22366	05022373			
22367	04042312			
22370	62264440			
22371	05112673			
22372	05102612			
22373	52515143		BCD	' RRL1=17F,16F,29D,25D TRAP=58B PI=53F STV=27F,51F''
22374	01400107			
22375	26730106			
22376	26730211			
22377	24730205			
22400	24126751			
22401	21474005			
22402	10221247			
22403	31400503			
22404	26126263			
22405	65400207			
22406	26730501			
22407	26371212			
22410	52462240	TM2A	BCD	' 0B=58F,58C,49F,52C,44C PI=53F STV=27F,51F''
22411	05102673			
22412	05102373			
22413	04112673			

CPU0	TAP=3.C	01/15	03101	PAGE 406
22414	05022373			
22415	04042312			
22416	47314005			
22417	03261262			
22420	63654002			
22421	07267305			
22422	01263712			
22423	52462240	TM2B	BCD	' 0B=58F,58C,49F,52C,44C SFM=59F,58F '
22424	05102673			
22425	05102373			
22426	04112673			
22427	05022373			
22430	04042312			
22431	62264440			
22432	05112673			
22433	05102612			
22434	51430026		BCD	'RLOF=49A REL=53F,52F RLS1=53E,55F''
22435	40041121			
22436	12512543			
22437	40050326			
22440	73050226			
22441	12514362			
22442	01400503			
22443	25730505			
22444	26371212			
22445	52462240	TM3A	BCD	' 0B=48F''
22446	04102637			
22447	52462221	TM3B	BCD	' 0BA=48F,58F,58C,49F,52C,49F RLOM=46A '
22450	40041026			
22451	73051026			
22452	73051023			
22453	73041126			
22454	73050223			
22455	73041126			
22456	12514300			
22457	30400406			

CPUO TAP=3.0 01/15 03101 PAGE 407

22460	21121212			
22461	51430000	BCD		'RL00=50A RL01=50A RL02=50A RL03=49A RRL1=17F,1
22462	40050021			
22463	12514300			
22464	01400500			
22465	21125143			
22466	00024005			
22467	00211251			
22470	43000340			
22471	04112112			
22472	51514301			
22473	40010726			
22474	73121212			
22475	01062673	BCD		'16F,29D,25D''
22476	02112473			
22477	02052437			
22500	52622543	TM4	BCD	'SEL0=46F RL0F=49A SFM=59F,48F''
22501	00400406			
22502	26125143			
22503	00264004			
22504	11211262			
22505	26444005			
22506	11267304			
22507	10263712			
22510	52622543	TM5	BCD	'SEL1=46F RL1F=49A SFM=59F,48F''
22511	01400406			
22512	26125143			
22513	01264004			
22514	11211262			
22515	26444005			
22516	11267304			
22517	10263712			
22520	52622543	TM6	BCD	'SEL2=46F RL2F=46A SFM=59F,48F''
22521	02400406			
22522	26125143			
22523	02264004			

CPUO TAP=3.0 01/15 03101 PAGE 408

22524	06211262			
22525	26444005			
22526	11267304			
22527	10263712			
22530	52622543	TM7	BCD	'SEL3=46F RL3F=46A SFM=59F,48F''
22531	03400406			
22532	26125143			
22533	03264004			
22534	06211262			
22535	26444005			
22536	11267304			
22537	10263712			
22540	52622543	TM8	BCD	'SEL4=47F RL4F=48A SFM=59F,48F''
22541	04400407			
22542	26125143			
22543	04264004			
22544	10211262			
22545	26444005			
22546	11267304			
22547	10261212			
22550	51430302	BCD		'RL52=55F,48F''
22551	40050026			
22552	73041026			
22553	37121212			
22554	52622543	TM9	BCD	'SEL5=47F RL5F=58A SFM=59F,48F''
22555	05400407			
22556	26125143			
22557	05264005			
22560	10211262			
22561	26444005			
22562	11267304			
22563	10263712			
22564	52622543	TM10	BCD	'SEL6=47F RL6F=47A SFM=59F,48F''
22565	06400407			
22566	26125143			
22567	06264004			

CPU0	TAP=3.0	01/15	03101	PAGE 409
22570	07211262			
22571	26444005			
22572	11267304			
22573	10263712			
22574	52622543	TM11	BCD	'SEL7=47F RL7F=47A 8FM=59F,48F''
22575	07400407			
22576	26125143			
22577	07264704			
22600	07211262			
22601	26444005			
22602	11267304			
22603	10263712			
22604	52514300	TM12	BCD	'RL0H=46A RL00=50A RL01=50A '
22605	30400406			
22606	21125143			
22607	00004005			
22610	00211251			
22611	43000140			
22612	05002112			
22613	51430702		BCD	'RL02=50A RL03=49A''
22614	40050721			
22615	12514300			
22616	03400411			
22617	21371212			
22620	52514301	TM13	BCD	'RL1H=53A RL10=18F RL11=18F '
22621	30400503			
22622	21125143			
22623	01004701			
22624	10261251			
22625	43000140			
22626	01102412			
22627	51430102		BCD	'RL12=18F RL13=20F''
22630	40011226			
22631	12514301			
22632	03400200			
22633	26371212			

CPU0	TAP=3.0	01/15	03101	PAGE 410
22634	52514302	TM14	BCD	'RL2H=53A RL20=20F RL21=20F '
22635	30400503			
22636	21125143			
22637	02004002			
22640	00261251			
22641	43000140			
22642	02002612			
22643	51430702		BCD	'RL22=22F RL23=22F''
22644	40020726			
22645	12514302			
22646	03400202			
22647	26371212			
22650	52510302	TM15	BCD	'R32H=53A RL30=22F RL31=24F '
22651	30400503			
22652	21125143			
22653	03004002			
22654	02261251			
22655	43000140			
22656	02042612			
22657	51430702		BCD	'RL32=24F RL33=24F''
22660	40020426			
22661	12514303			
22662	03400704			
22663	26371212			
22664	52510304	TM16	BCD	'R34H=47A RL40=51A RL41=51A '
22665	30400407			
22666	21125143			
22667	04004005			
22670	01211251			
22671	43040140			
22672	05012112			
22673	51430402		BCD	'RL42=51A RL43=48A''
22674	40050121			
22675	12514304			
22676	03400410			
22677	21371212			

CPU0	TAP=3.C	01/15	03101	PAGE 411
22700	52510305	TM17	BCD	' R35H=52A RL50=19F RL51=19F '
22701	30400502			
22702	21125143			
22703	05004001			
22704	11261251			
22705	43050140			
22706	01112612			
22707	51430502		BCD	' RL52=19F RL53=21F '
22710	40011126			
22711	12514305			
22712	03400201			
22713	26371212			
22714	52510306	TM18	BCD	' R36H=52A RL60=21F RL61=21F '
22715	30400502			
22716	21125143			
22717	06004002			
22720	01261251			
22721	43060140			
22722	02012612			
22723	51430602		BCD	' RL62=23F RL63=23F '
22724	40020326			
22725	12514306			
22726	03400203			
22727	26371212			
22730	52510307	TM19	BCD	' R37H=52A RL70=23F RL71=26F '
22731	30400502			
22732	21125143			
22733	07004002			
22734	03261251			
22735	43070140			
22736	02062612			
22737	51430702		BCD	' RL72=26F RL73=26F '
22740	40020426			
22741	12514307			
22742	03400206			
22743	26371212			

CPU0	TAP=3.C	01/15	03101	PAGE 412
22744	52514300	TM20	BCD	' RL03=49A GATE=55F '
22745	03400411			
22746	21122721			
22747	63254005			
22750	05263712			
22751	52514300	TM21	BCD	' RL02=50A GATE=55F '
22752	02400500			
22753	21122721			
22754	63254005			
22755	05263712			
22756	52514300	TM22	BCD	' RL01=50A GATE=55F '
22757	01400500			
22760	21122721			
22761	63254005			
22762	05263712			
22763	52514300	TM23	BCD	' RL00=50A GATE=55F '
22764	00400500			
22765	21122721			
22766	63254005			
22767	05263712			
22770	52514300	TM24	BCD	' RL04=46A GATE=56F '
22771	30400406			
22772	21122721			
22773	63254005			
22774	06263712			
22775	52514301	TM25	BCD	' RL13=20F GATE=31F RL51=17F '
22776	03400200			
22777	26122721			
23000	63254003			
23001	01261251			
23002	43620154			
23003	40010726			
23004	37121212			
23005	52514301	TM26	BCD	' RL12=18F GATE=27F '
23006	02400110			
23007	26122721			

CPJO	TAP=3.0	01/15	03101	PAGE 413
23010	63254002			
23011	07263712			
23012	52514301	T427	BCD	' RL11=18F GATE=31F11
23013	01400110			
23014	26122721			
23015	63254003			
23016	01263712			
23017	52514301	T428	BCD	' RL10=18F GATE=27F11
23020	00400110			
23021	26122721			
23022	63254002			
23023	07263712			
23024	52514301	T429	BCD	' RL14=53A GATE=56F11
23025	30400503			
23026	21122721			
23027	63254005			
23030	06263712			
23031	52514302	T430	BCD	' RL23=22F GATE=31F11
23032	03400202			
23033	26122721			
23034	63254003			
23035	01263712			
23036	52514302	T431	BCD	' RL22=22F GATE=27F11
23037	02400202			
23040	26122721			
23041	63254002			
23042	07263712			
23043	52514302	T432	BCD	' RL21=20F GATE=31F11
23044	01400200			
23045	26122721			
23046	63254003			
23047	01263712			
23050	52514302	T433	BCD	' RL20=20F GATE=27F11
23051	00400200			
23052	26122721			
23053	63254002			

CPJO	TAP=3.0	01/15	03101	PAGE 414
23054	07263712			
23055	52514302	T434	BCD	' RL24=53A GATE=58F11
23056	30400503			
23057	21122721			
23060	63254005			
23061	10263712			
23062	52514303	T435	BCD	' RL33=24F GATE=31F11
23063	03400204			
23064	26122721			
23065	63254003			
23066	01263712			
23067	52514303	T436	BCD	' RL32=24F GATE=27F11
23070	02400204			
23071	26122721			
23072	63254002			
23073	07263712			
23074	52514303	T437	BCD	' RL31=24F GATE=31F11
23075	01400204			
23076	26122721			
23077	63254003			
23100	01263712			
23101	52514303	T438	BCD	' RL30=22F GATE=27F11
23102	00400202			
23103	26122721			
23104	63254002			
23105	07263712			
23106	52514303	T439	BCD	' RL34=53A GATE=58F11
23107	30400503			
23110	21122721			
23111	63254005			
23112	10263712			
23113	52514304	T440	BCD	' RL43=48A GATE=55F11
23114	03400410			
23115	21122721			
23116	63254005			
23117	05263712			

CPU0	TAP=3.0	01/15	03101	PAGE 415
23120	52514304	TM41	BCD	' RL42=51A GATE=55F''
23121	02400501			
23122	21122721			
23123	63254005			
23124	05263712			
23125	52514304	TM42	BCD	' RL41=51A GATE=55F''
23126	01400501			
23127	21122721			
23130	63254005			
23131	05263712			
23132	52514304	TM43	BCD	' RL40=51A GATE=55F''
23133	00400501			
23134	21122721			
23135	63254005			
23136	10263712			
23137	52514304	TM44	BCD	' RL4H=47A GATE=55F''
23140	30400407			
23141	21122721			
23142	63254005			
23143	10263712			
23144	52514301	TM45	BCD	' RL13=21F GATE=31F RLS1=17F''
23145	03400501			
23146	26122721			
23147	63254003			
23150	01261251			
23151	43620154			
23152	40010726			
23153	37121212			
23154	52514305	TM46	BCD	' RL52=19F GATE=27F''
23155	02400111			
23156	26122721			
23157	63254002			
23160	07263712			
23161	52514305	TM47	BCD	' RL51=19F GATE=31F''
23162	01400111			
23163	26122721			

CPU0	TAP=3.0	01/15	03101	PAGE 416
23164	63254003			
23165	01263712			
23166	52514305	TM48	BCD	' RL50=19F GATE=27F''
23167	00400111			
23170	26122721			
23171	63254002			
23172	07263712			
23173	52514305	TM49	BCD	' RL5H=52A GATE=56F''
23174	30400402			
23175	21122721			
23176	63254005			
23177	06263712			
23200	52514306	TM50	BCD	' RL63=23F GATE=31F''
23201	03400503			
23202	26122721			
23203	63254003			
23204	01263712			
23205	52514306	TM51	BCD	' RL62=23F GATE=27F''
23206	02400503			
23207	26122721			
23210	63254002			
23211	07263712			
23212	52514306	TM52	BCD	' RL61=21F GATE=31F''
23213	01400501			
23214	26122721			
23215	63254003			
23216	01263712			
23217	52514306	TM53	BCD	' RL60=21F GATE=27F''
23220	00400501			
23221	26122721			
23222	63254002			
23223	07263712			
23224	52514306	TM54	BCD	' RL6H=52A GATE=56F''
23225	30400502			
23226	21122721			
23227	63254005			

CPU0	TAP=3.0	01/15	03101	PAGE 417
23230	06263712			
23231	52514307	TM55	BCD	' RL73=26F GATE=31F!!
23232	03400206			
23233	26122721			
23234	63254003			
23235	01263712			
23236	52514307	TM56	BCD	' RL72=26F GATE=27F!!
23237	02400206			
23240	26122721			
23241	63254002			
23242	07263712			
23243	52514307	TM57	BCD	' RL71=26F GATE=31F!!
23244	01400206			
23245	26122721			
23246	63254003			
23247	01263712			
23250	52514307	TM58	BCD	' RL70=23F GATE=27F!!
23251	00400209			
23252	26122721			
23253	63254002			
23254	07263712			
23255	52514307	TM59	BCD	' RL7H=52A GATE=56F!!
23256	30400502			
23257	21122721			
23260	63254005			
23261	06263712			
23262	52442440	TRANM1	BCD	' MD=51F MUT BAR=51F!!
23263	05012612			
23264	44646312			
23265	22215140			
23266	05012637			
23267	52446463	TRANM2	BCD	' MUT BAR=52F!!
23270	12222151			
23271	40050226			
23272	37121212			
23273	52446463	TRANM3	BCD	' MUT BAR=58F!!

CPU0	TAP=3.0	01/15	03101	PAGE 418
23274	12222151			
23275	40051026			
23276	37121212			
23277	52446463	TRANM4	BCD	' MUT BAR=51F!!
23300	12222151			
23301	40050126			
23302	37121212			
23303	52473150	MUTM1	BCD	' PIQ BAR=47F TTE=64D,16F,25D,29D,5C!!
23304	12222151			
23305	40040726			
23306	12636325			
23307	40060424			
23310	73010626			
23311	73020524			
23312	73021124			
23313	73052337			
23314	52636325	MUTM2	BCD	' TTE=64D PIQ BAR=47F S12=63D!!
23315	40060424			
23316	12473150			
23317	12222151			
23320	40040726			
23321	12620102			
23322	40060324			
23323	37121212			
23324	52473150	MUTM3	BCD	' PIQ BAR=47F!!
23325	12222151			
23326	40040726			
23327	37121212			
23330	52473150	PIM1	BCD	' PIQ BAR=17F PI=53F TRAP=548 S9=59C S12=63D F1,F3=44C,38C!!
23331	12222151			
23332	40010726			
23333	12473140			
23334	05032612			
23335	63512147			
23336	40050422			
23337	12621140			

CPU0 TAP=3.0 01/15 03101 PAGE 419

```
23340 05112312
23341 62010240
23342 06032412
23343 26017326
23344 03400404
23345 23730310
23346 23371212
23347 52473150 PIM2 BCD 'PIQ=17F,8E,14E''
23350 40010726
23351 73102573
23352 01042537
23353 52624764 SPIT BCD 'SPURIOUS INTERRUPT OR TRAP''
23354 51314664
23355 62123145
23356 63255151
23357 64476712
23360 46511263
23361 51214737
23362 52516703 RTCM0 BCD 'RTC=42H ISB=30H''
23363 40040230
23364 12316210
23365 40030030
23366 37121212
23367 52516303 RTCM1 BCD 'RTC=42H ISB=30H RTC=43H RECEIVERS=11F''
23370 40040230
23371 12316210
23372 40030030
23373 12516323
23374 40040230
23375 12512523
23376 31256525
23377 51624001
23400 01263712
23401 52516323 RTCM2 BCD 'RTC=43H CPU CLOCK=1E''
23402 40040230
23403 12234764
```

CPU0 TAP=3.0 01/15 03101 PAGE 420

```
23404 12234764
23405 23424001
23406 25371212
23407 52516323 RTCM3 BCD 'RTC=43H CPU CLOCK=1E''
23410 40040230
23411 12234764
23412 12234764
23413 23424001
23414 25121212
23415 52516303 RTCM4 BCD 'RTC=42H IS7=30H SKI BAR=49B SKI=21E''
23416 40040230
23417 12316207
23420 40030030
23421 12624731
23422 12222151
23423 40041122
23424 12624731
23425 40020125
23426 37121212
23427 52624231 RTCM5 BCD 'SKI BAR=49B SKI=21E IS7=30H''
23430 12222151
23431 40041122
23432 12624231
23433 40020125
23434 12316207
23435 40030030
23436 37121212
23437 0 00 00000 TEMP PZE
23440 0 00 00000 TEMPX PZE
23441 0 00 00000 TEMPA PZE
23442 0 00 00000 TEMPB PZE
23443 0 00 00000 TEMPC PZE
23444 0 00 00000 TEMPD PZE
END
```

LITERALS USED:
23445 10000000

CPU0 TAP-3.0 01/15 03101 PAGE 421

23446 11111111
23447 00000000
23450 22222222
23451 44444444
23452 00000001
23453 00000002
23454 00000004
23455 07070707
23456 00770077
23457 00777700
23460 77777777
23461 01234567
23462 52525252
23463 25252525
23464 76543210
23465 25252525
23466 40000000
23467 70707070
23470 37777777
23471 00000077
23472 00000707
23473 00000707
23474 00000770
23475 00000777
23476 00002552
23477 00005225
23500 00007777
23501 77777776
23502 00516273
23503 77241504
23504 05162737
23505 72615040
23506 00037777
23507 00005706
23510 03205752
23511 00040000

CPU0 TAP-3.0 01/15 03101 PAGE 422

23512 00004000
23513 77777773
23514 66666666
23515 50505050
23516 20202020
23517 33333333
23520 55555555
23521 01010101
23522 07172737
23523 10203040
23524 47576777
23525 50607100
23526 20304050
23527 60710110
23530 21212121
23531 30405060
23532 71011120
23533 31313131
23534 40506070
23535 01112130
23536 41414141
23537 11213140
23540 51515151
23541 21314150
23542 61616161
23543 31415160
23544 71717171
23545 41516170
23546 10101010
23547 00112233
23550 10213243
23551 44556677
23552 54657707
23553 20314253
23554 64760717
23555 30303030

23556 30415263
23557 75061727
23560 40404040
23561 40516273
23562 50617303
23563 15263747
23564 60676760
23565 60720713
23566 25364757
23567 71021723
23570 35465767
23571 37777776
23572 30000001
23573 27777777
23574 11111110
23575 77777771
23576 66666667
23577 55555556
23600 60000000
23601 06000000
23602 01000000
23603 00600000
23604 00100000
23605 00060000
23606 00010000
23607 00003000
23610 00000400
23611 00000700
23612 00000040
23613 00000030
23614 00000003
23615 20000000
23616 57777777
23617 04000000
23620 67777777
23621 02000000

23622 73777777
23623 75777777
23624 00400000
23625 76777777
23626 00200000
23627 77377777
23630 77577777
23631 77677777
23632 00020000
23633 77737777
23634 00010000
23635 77757777
23636 77767777
23637 00020000
23640 77773777
23641 00001000
23642 77775777
23643 77776777
23644 00000000
23645 77777777
23646 00000100
23647 77777577
23650 77777677
23651 00000020
23652 77777737
23653 00000010
23654 77777757
23655 77777767
23656 77777775
23657 00000067
23660 00000063
23661 77000000
23662 00770000
23663 00007700
23664 41000000
23665 42000000

23666 44000000
 23667 50000000
 23670 00410000
 23671 00420000
 23672 00440000
 23673 00500000
 23674 00004100
 23675 00004700
 23676 00004400
 23677 00005000
 23700 00006000
 23701 00000041
 23702 00000042
 23703 00000044
 23704 00000050
 23705 00000060
 23706 40010203
 23707 04050607
 23710 00000271
 23711 00000261
 23712 00004136
 23713 00005073
 23714 060002407
 23715 00000331
 23716 06100407
 23717 00000177
 23720 00000237
 23721 00000273
 23722 00000377
 23723 00000161

23724 CELLS USED BY PROGRAM

LOCAL SYMBOLS USED *

AREG	N	410	BREG	N	411	BRM1	5703*
BRM2		5710*	BRR1		5744*	BRR2	5751*
CARRET		17232*	CKWPB	N	6045*	CLEAR	17156*
CSMMBN		17140*	DIVERT		450	DONE	452
DSCNWP		20622*	DSCSIZ	N	404	DSCWP	20611*
DUMMY		77760545	END		434	EOR	5135*
ERRBR		460	ERRORS	N	414	ETR	5106*
FAM0		21175*	FAM1		20220*	FAM2	20450*
FAM3		20525*	FAM4		20567*	FAW	20005*
FDONE		456	FID0		20013*	FID1	20021*
FID2		21027*	FID3		20035*	FID4	20043*
FIMO		20165*	FIM1		20211*	FIM2	20437*
FIM3		20512*	FIM4		20555*	FLAGS	N 332
FPT0		20006*	FPT1		20014*	FPT2	20022*
FPT3		21030*	FPT4		20036*	FUNCTN	424
FUNCO	N	4105*	FUNC1		14000*	FUNC2	16256*
FUNC3		14454*	FUNC4		16730*	FVM0	20207*
FVM1		20435*	FVM2		20510*	FVM3	20553*
FVM4		20607*	I30T44		17130*	I31	N 243
I33	N	247	I56I7*		17127*	I74	331
IEXT		17114*	ILLEX		17172*	IM80	17220*
INT31	N	242	INT33	N	246	ITABLE	17166*
LAST		17051*	LCY1		5547*	LCY2	5576*
LCY3		4625*	LCY4		5654*	LOCKS	N 402
M10		21721*	M100		21333*	M101	21335*
M102		21337*	M103		21341*	M104	21343*
M105		21346*	M106		21351*	M107	21353*
M108		21355*	M109		21357*	M11	20724*
M110		21361*	M111		21363*	M112	21365*
M113		21367*	M114		21371*	M115	21373*
M116		21375*	M117		21377*	M118	21401*
M119		21404*	M12		20727*	M120	21407*
M121		21412*	M122		21415*	M123	21420*

CPU0 TAP=3.0 01/15 03101 PAGE 427

M124	21423+	M125	21426+	M126	21431+
M127	21434+	M128	21437+	M129	21442+
M13	21432+	M130	21445+	M131	21450+
M132	21453+	M133	21456+	M134	21461+
M135	21464+	M136	21467+	M137	21472+
M138	21475+	M139	21500+	M14	20735+
M140	21503+	M141	21506+	M142	21511+
M143	21514+	M144	21517+	M145	21522+
M146	21525+	M147	21530+	M148	21533+
M149	21535+	M15	20740+	M150	21537+
M151	21541+	M152	21543+	M153	21545+
M154	21547+	M155	21551+	M156	21556+
M157	21560+	M158	21562+	M159	21564+
M16	21743+	M160	21566+	M161	21570+
M162	21572+	M163	21574+	M164	21576+
M165	21600+	M166	21602+	M167	21605+
M168	21610+	M169	21613+	M17	20746+
M170	21616+	M171	21621+	M172	21624+
M173	21627+	M174	21632+	M175	21635+
M176	21640+	M177	21643+	M178	21646+
M179	21651+	M18	20751+	M180	21654+
M181	21657+	M182	21662+	M183	21665+
M184	21670+	M185	21673+	M186	21676+
M187	21701+	M188	21704+	M189	21707+
M19	21754+	M190	21712+	M191	21714+
M192	21717+	M193	21722+	M194	21725+
M195	21730+	M196	21733+	M197	21736+
M198	21740+	M199	21742+	M1	20664+
M20	21757+	M200	21744+	M201	21746+
M202	21751+	M203	21754+	M204	21756+
M205	21760+	M206	21762+	M207	21764+
M208	21764+	M209	21770+	M21	20762+
M210	21772+	M211	21774+	M212	21776+
M213	22000+	M214	22002+	M215	22004+
M216	22007+	M217	22012+	M218	22015+
M219	22020+	M22	20765+	M220	22023+

CPU0 TAP=3.0 01/15 03101 PAGE 428

M221	22026+	M222	22031+	M223	22034+
M224	22037+	M225	22042+	M226	22045+
M227	22050+	M228	22053+	M229	22056+
M23	22070+	M230	22061+	M231	22064+
M232	22067+	M233	22072+	M234	22075+
M235	22100+	M236	22103+	M237	22106+
M238	22111+	M239	22114+	M23A	20773+
M24	22076+	M240	22117+	M241	22122+
M242	22125+	M243	22130+	M244	22133+
M245	22136+	M246	22140+	M247	22142+
M248	22144+	M249	22146+	M25	21001+
M250	22150+	M251	22152+	M252	22154+
M253	22156+	M254	22160+	M255	22162+
M256	22164+	M257	22166+	M258	22170+
M259	22172+	M26	21004+	M260	22174+
M261	22176+	M262	22200+	M263	22202+
M264	22205+	M265	22210+	M266	22213+
M267	22216+	M268	22221+	M269	22224+
M27	21007+	M270	22227+	M271	22232+
M272	22235+	M273	22240+	M274	22243+
M275	22244+	M276	22252+	M277	22257+
M278	22264+	M279	22271+	M28	21012+
M280	22276+	M281	22302+	M282	22306+
M283	22313+	M29	21015+	M2	20667+
M30	21020+	M31	21023+	M32	21026+
M33	21031+	M34	21034+	M35	21037+
M36	21044+	M37	21047+	M38	21052+
M39	21055+	M3	20672+	M40	21060+
M41	21063+	M42	21066+	M43	21071+
M44	21074+	M45	21077+	M46	21102+
M47	21105+	M48	21110+	M49	21113+
M4	210675+	M50	21116+	M51	21121+
M52	21124+	M53	21127+	M54	21132+
M55	21135+	M56	21140+	M57	21143+
M58	21146+	M59	21151+	M5	20700+
M60	21154+	M61	21156+	M62	21161+

M63		21163+	M64		21166+	M65		21170+
M66		21173+	M67		21175+	M68		21200+
M69		21203+	M6		20703+	M70		21206+
M71		21211+	M72		21214+	M73		21217+
M74		21222+	M75		21225+	M76		21227+
M77		21232+	M78		21234+	M79		21237+
M7		21206+	M80		21241+	M81		21244+
M82		21246+	M83		21251+	M84		21254+
M85		21257+	M86		21262+	M87		21265+
M88		21270+	M89		21273+	M8		20711+
M90		21276+	M91		21301+	M92		21304+
M93		21307+	M94		21311+	M95		21314+
M96		21317+	M97		21322+	M98		21325+
M99		21330+	M9		20716+	MADDR		22320+
M101		5213+	M1N2		5253+	M1N3		5313+
M104		5353+	M101		6005+	MRG		5164+
M5G		20662+	MUT1		16374+	MUT2	N	16422+
MUT3	N	14441+	MUTM1		23303+	MUTM2		23314+
MUTM3		27324+	MUTR1		16413+	MUTR2		16433+
MUTR3A		16457+	MUTR3B		16452+	010	N	6236+
0100	N	10154+	0101	N	10165+	0102	N	10176+
0103	N	10207+	0104	N	10220+	0105	N	10231+
0106	N	10242+	0107	N	10253+	0108	N	10264+
0109	N	10275+	011	N	6247+	0110	N	10306+
0111	N	10317+	0112	N	10330+	0113	N	10341+
0114	N	10352+	0115	N	10363+	0116	N	10374+
0117	N	10405+	0118	N	10416+	0119	N	10426+
012	N	10260+	0120	N	10435+	0121	N	10445+
0122	N	10454+	0123	N	10464+	0124	N	10473+
0125	N	10503+	0126	N	10512+	0127	N	10522+
0128	N	10531+	0129	N	10541+	013	N	6271+
0130	N	10550+	0131	N	10560+	0132	N	10567+
0133	N	10577+	0134	N	10606+	0135	N	10616+
0136	N	10625+	0137	N	10635+	0138	N	10644+
0139	N	10654+	014	N	6302+	0140	N	10663+
0141	N	10673+	0142	N	10702+	0143	N	10712+

0144	N	10721+	0145	N	10731+	0146	N	10740+
0147	N	10750+	0148	N	10757+	0149	N	10767+
015	N	6313+	0150	N	10776+	0151	N	11006+
0152	N	11015+	0153	N	11025+	0154	N	11034+
0155	N	11044+	0156	N	11053+	0157	N	11063+
0158	N	11072+	0159	N	11102+	016	N	6326+
0160	N	11111+	0161	N	11121+	0162	N	11130+
0163	N	11140+	0164	N	11147+	0165	N	11162+
0166	N	11174+	0167	N	11206+	0168	N	11217+
0169	N	11231+	017	N	6341+	0170	N	11242+
0171	N	11254+	0172	N	11265+	0173	N	11277+
0174	N	11310+	0175	N	11322+	0176	N	11333+
0177	N	11345+	0178	N	11356+	0179	N	11370+
018	N	6354+	0180	N	11401+	0181	N	11413+
0182	N	11424+	0183	N	11436+	0184	N	11447+
0185	N	11461+	0186	N	11472+	0187	N	11504+
0188	N	11515+	0189	N	11527+	019	N	6367+
0190	N	11540+	0191	N	11552+	0192	N	11563+
0193	N	11575+	0194	N	11606+	0195	N	11620+
0196	N	11631+	0197	N	11643+	0198	N	11654+
0199	N	11664+	01	N	6107+	020	N	6402+
0200	N	11677+	0201	N	11711+	0202	N	11722+
0203	N	11734+	0204	N	11745+	0205	N	11757+
0206	N	11770+	0207	N	12002+	0208	N	12013+
0209	N	12025+	021	N	6415+	0210	N	12036+
0211	N	12050+	0212	N	12061+	0213	N	12070+
0214	N	12100+	0215	N	12107+	0216	N	12117+
0217	N	12126+	0218	N	12136+	0219	N	12145+
022	N	4430+	0220	N	12155+	0221	N	12164+
0222	N	12174+	0223	N	12203+	0224	N	12213+
0225	N	12222+	0226	N	12232+	0227	N	12241+
0228	N	12251+	0229	N	12260+	023	N	6443+
0230	N	12270+	0231	N	12277+	0232	N	12307+
0233	N	12316+	0234	N	12326+	0235	N	12335+
0236	N	12345+	0237	N	12354+	0238	N	12364+
0239	N	12373+	023A	N	6456+	024	N	6471+

CPU0	TAP=3.C	01/15	03101	PAGE 431				
0240	N	12423*	0241	N	12412*	0242	N	12422*
0243	N	12431*	0244	N	12441*	0245	N	12450*
0246	N	12460*	0247	N	12467*	0248	N	12477*
0249	N	12506*	025	N	6504*	0250	N	12516*
0251	N	12525*	0252	N	12535*	0253	N	12544*
0254	N	12554*	0255	N	12563*	0256	N	12573*
0257	N	12602*	0258	N	12613*	0259	N	12623*
026	N	6515*	0260	N	12634*	0261	N	12644*
0262	N	12656*	0263	N	12667*	0264	N	12701*
0265	N	12712*	0266	N	12724*	0267	N	12735*
0268	N	12747*	0269	N	12760*	027	N	6530*
0270	N	12772*	0271	N	13003*	0272	N	13015*
0273	N	13024*	0274	N	13040*	0275	N	13051*
0276	N	13063*	0277	N	13074*	0278	N	13106*
0279	N	13117*	028	N	6543*	0280	N	13130*
0281	N	13141*	0282	N	13153*	0283	N	13164*
0284	N	13176*	0285	N	13207*	0286	N	13221*
0287	N	13232*	0288	N	13244*	0289	N	13255*
029	N	6556*	0290	N	13267*	0291	N	13300*
0292	N	13312*	0293	N	13323*	0294	N	13335*
0295	N	13346*	0296	N	13360*	0297	N	13371*
0298	N	13403*	0299	N	13414*	02	N	6120*
030	N	4571*	0300	N	13426*	0301	N	13437*
0302	N	13451*	0303	N	13462*	0304	N	13474*
0305	N	13505*	0306	N	13517*	0307	N	13532*
0308	N	13544*	0309	N	13557*	031	N	6604*
0310	N	13571*	0311	N	13602*	0312	N	13612*
0313	N	13622*	032	N	6617*	033	N	6631*
034	N	6643*	035	N	6656*	036	N	6665*
037	N	6674*	038	N	6703*	039	N	6712*
03	N	6131*	040	N	6721*	041	N	6730*
042	N	6737*	043	N	6746*	044	N	6755*
045	N	6754*	046	N	6773*	047	N	7002*
048	N	7011*	049	N	7020*	04	N	6143*
050	N	7027*	051	N	7036*	052	N	7045*
053	N	7054*	054	N	7063*	055	N	7072*

CPU0	TAP=3.C	01/15	03101	PAGE 432				
056	N	7101*	057	N	7110*	058	N	7117*
059	N	7126*	05	N	6155*	060	N	7135*
061	N	7144*	062	N	7153*	063	N	7162*
064	N	7171*	065	N	7200*	066	N	7210*
067	N	7220*	068	N	7230*	069	N	7241*
06	N	6170*	070	N	7251*	071	N	7261*
072	N	7271*	073	N	7303*	074	N	7313*
075	N	7324*	076	N	7334*	077	N	7347*
078	N	7361*	079	N	7373*	07	N	6203*
080	N	7403*	081	N	7413*	082	N	7423*
083	N	7433*	084	N	7443*	085	N	7453*
086	N	7463*	087	N	7473*	088	N	10000*
089	N	10011*	08	N	6214*	090	N	10022*
091	N	10033*	092	N	10044*	093	N	10055*
094	N	10066*	095	N	10077*	096	N	10110*
097	N	10121*	098	N	10132*	099	N	10143*
09	N	6225*	09JECT		430	09RFL0	N	413
PI-1		23330*	PI-2		23347*	PIR1		16477*
PIR10		16704*	PIR11		16721*	PIR2		16533*
PIR3		14551*	PIR4		16566*	PIR5		16603*
PIR6		14620*	PIR7		16635*	PIR8		16652*
PIR9		16667*	PIT1	N	16466*	PIT10	N	16675*
PIT11	N	16712*	PIT2	N	16505*	PIT3	N	16542*
PIT4	N	14557*	PIT5	N	16574*	PIT6	N	16611*
PIT7	N	14626*	PIT8	N	16643*	PIT9	N	16660*
P0P		17122*	P0PED		17205*	RADNWP		20647*
RADSIZ	N	403	RADWP		20636*	RCY1		5413*
RCY2		5442*	RCY3		5471*	RCY4		5520*
REPBRT		45*	RETURN		440	RL1		415
RL2		416	RL4	N	417	RTCO	N	16733*
RTC1	N	14751*	RTC1A		16757*	RTC1B		16767*
RTC1C		14771*	RTC1D		17001*	RTC1E		17014*
RTC2	N	17015*	RTC2A		17035*	RTC2B		17046*
RTC40		23362*	RTC41		23367*	RTC42		23401*
RTC43		23407*	RTC44		23415*	RTC45		23427*
RTC6FF		17061*	RTC6N		17052*	SEED	N	406

SET9*0	6065*	SKA1	4202*	SKA2	4234*
SKA3	4266*	SKA4	4321*	SKA5	4354*
SKB1	4701*	SKB2	4733*	SKB3	4765*
SKB4	5020*	SKB5	5053*	SKE1	4022*
SKE10	4140*	SKE11	4150*	SKE2	4032*
SKE3	4042*	SKE4	4052*	SKE5	4063*
SKE6	4074*	SKE7	4105*	SKE8	4116*
SKE9	4127*	SKM1	4407*	SKM2	4441*
SKM3	4473*	SKM4	4526*	SKM5	4561*
SKN1	4614*	SKN2	4646*	SKS1	4013*
SPIT	23353*	SPRINT	17211*	SPURCI	17073*
SPURI	17101*	STATUS	401	SYSIZE	405
T10	14323*	T11	14347*	T12	14373*
T13	14417*	T14	14443*	T15	14467*
T16	14513*	T17	14537*	T18	14563*
T19	14607*	T1	14020*	T20	14633*
T21	14657*	T22	14703*	T23	14727*
T24	14753*	T25	14777*	T26	15023*
T27	15047*	T28	15073*	T29	15117*
T2	14051*	T30	15143*	T31	15167*
T32	15213*	T33	15237*	T34	15263*
T35	15307*	T36	15333*	T37	15357*
T38	15403*	T39	15427*	T3	14102*
T40	261	T40A	15453*	T41	263
T41A	15477*	T42A	15523*	T43	267
T43A	15547*	T44	271	T44A	15573*
T45	15617*	T46	15643*	T47	15667*
T48	15713*	T49	15737*	T4	14133*
T50	15763*	T51	16007*	T52	16033*
T53	16057*	T54	16103*	T55	16127*
T56	16153*	T57	16177*	T58	16223*
T59	16247*	T5	14157*	T6	14203*
T7	14227*	T8	14253*	T9	14277*
TEMPX	23440*	TEMP	23437*	TEMPA	23441*
TEMPB	23442*	TEMPC	23443*	TEMPO	23444*
TIME	407	TM10	22564*	TM11	22574*

TM12	22604*	TM13	22620*	TM14	22634*
TM15	22650*	TM16	22664*	TM17	22700*
TM18	22714*	TM19	22730*	TM1A	22337*
TM1B	22362*	TM20	22744*	TM21	22751*
TM22	22756*	TM23	22763*	TM24	22770*
TM25	22775*	TM26	23005*	TM27	23012*
TM28	23017*	TM29	23024*	TM2A	22410*
TM2B	22423*	TM30	23031*	TM31	23036*
TM32	24043*	TM33	23050*	TM34	23055*
TM35	23062*	TM36	23067*	TM37	23074*
TM38	23101*	TM39	23106*	TM3A	22445*
TM3B	22447*	TM4	22500*	TM40	23113*
TM41	23120*	TM42	23125*	TM43	23132*
TM44	23137*	TM45	23144*	TM46	23154*
TM47	23161*	TM48	23166*	TM49	23173*
TM5	22510*	TM50	23200*	TM51	23205*
TM52	23212*	TM53	23217*	TM54	23224*
TM55	23231*	TM56	23236*	TM57	23243*
TM58	23250*	TM59	23255*	TM6	22520*
TM7	22530*	TM8	22540*	TM9	22554*
TMPT1M	17072*	TRANR1	16301*	TRANR2	16314*
TRANR3	14327*	TRANR4	16344*	TRANR5	16357*
TRANR6	16371*	TRAN1	16270*	TRAN2	16302*
TRAN3	14315*	TRAN4	16330*	TRAN5	16347*
TRAN6	16362*	TRANM1	23262*	TRANM2	23267*
TRANM3	23273*	TRANM4	23277*	TRAP1	14002*
TRAP10	14305*	TRAP11	14331*	TRAP12	14355*
TRAP13	14401*	TRAP14	14425*	TRAP15	14451*
TRAP16	14475*	TRAP17	14521*	TRAP18	14545*
TRAP19	14571*	TRAP2	14033*	TRAP20	14615*
TRAP21	14641*	TRAP22	14665*	TRAP23	14711*
TRAP24	14735*	TRAP25	14761*	TRAP26	15005*
TRAP27	15031*	TRAP28	15055*	TRAP29	15101*
TRAP3	14064*	TRAP30	15125*	TRAP31	15151*
TRAP32	15175*	TRAP33	15221*	TRAP34	15245*
TRAP35	15271*	TRAP36	15315*	TRAP37	15341*

TRAP38	N	15365*	TRAP39	N	15411*	TRAP4	N	14115*
TRAP40	N	15435*	TRAP41	N	15461*	TRAP42	N	15505*
TRAP43	N	15531*	TRAP44	N	15555*	TRAP45	N	15601*
TRAP46	N	15625*	TRAP47	N	15651*	TRAP48	N	15675*
TRAP49	N	15721*	TRAP5	N	14141*	TRAP50	N	15745*
TRAP51	N	15771*	TRAP52	N	16015*	TRAP53	N	16041*
TRAP54	N	16065*	TRAP55	N	16111*	TRAP56	N	16135*
TRAP57	N	16161*	TRAP58	N	16205*	TRAP59	N	16231*
TRAP6	N	14165*	TRAP7	N	14211*	TRAP8	N	14235*
TRAP9	N	14261*	JAM		2005*	JAW	N	400
UIM		20044*	UNIT		420	UNITO	N	6077*
UPT		20000*	UVM		20163*	XREG	N	412
ZFR9		0*						