

ZOPCHECK Program to Verify z390 Portable Mainframe Assembler Opcodes V1.1

Don Higgins

November 16, 2020

ZOPCHECK is a macro assembler program which runs on the open source z390 Portable Mainframe Assembler and on the IBM mainframe High Level Assembler (HLASM). The objective of the program is to verify that all the IBM mainframe machine operation codes and extended mnemonic operation codes are assembled correctly.

The program consists of the following 3 ASCII source language files:

1. ZOPCHECK.MLC – main program with 117 lines of code
2. ZOPMACRO.CPY – 41 structured macros with 1596 lines of code
3. ZOPCODES.CPY – 2357 macro call statements for each unique opcode and operand combination

These files are available for download, assembly, link, and execution as part of z390 which can be downloaded from www.z390.info. The ZOPCODES.CPY file is also included in this PDF document as Appendix 2 so readers can search for a specific operation mnemonic or hex opcode value such as 47, BC, BE, or SORTL.

This version is based on the IBM z/Architecture Principles of Operation (SA22-7832-12) published in September 2019 plus several additional references for missing opcodes. The HLASM Language Reference was helpful with extended mnemonics for conditional mask instructions. See Reference section for links to these and other documents about machine measurement and Z SORT for additional instructions such as SORTL. See Appendix 1 for release changes.

The main program includes the macro copy file at the front and the opcode copy file at the end. The main program establishes one base register to enable the macro generated code for each opcode to call a shared verification routine. For example, the macro call statements for the mnemonic BC (branch on condition) and the extended mnemonic BE (branch equal) are as follows:

P_47 TEST_OP RX,BC,M1,D2(X2,B2)
P_478 TEST_OP RX,BE,D2(X2,B2)

For each opcode a labelled call is made to the macro TEST_OP with the following field operands:

1. The label consists of three concatenated parts:

- a. The first character is P for problem state or S for supervisor state instruction followed by underscore. Note a number of problem state instructions may cause privilege exceptions if they attempt to execute requests that require supervisor state.
 - b. The next part is 2, 3, or 4 hex character opcode such as 47
 - c. The third part is up to 3 mask field hex character values 0-F corresponding to the default masks associated with an extended mnemonic opcode. For example the BE extended mnemonic operation has the default M1 mask value of 8.
 - d. The optional fourth part for opcodes that have a variable number of operands due to optional trailing operands is added to prevent duplicate label errors and consists of _P and the number of operands such as P_E781_P4 and P_E781_P5.
2. The positional operands following TEST_OP start with opcode type such as RX (one of 40 different mainframe instruction types).
 3. Opcode mnemonic name such as BC or BE.
 4. Opcode positional operand names such as R1, D2(B2), V3, M4 etc. Each operand name has been assigned a unique value via EQU statements in the main program.

Each call to the TEST_OP macro collects statistics and issues call to one of the instruction type macros to generate the following code:

1. BAL R12,ZOPCHECK – call verification routine in main program passing address of 32 byte area to verification routine.
2. Generated object code for assembly of opcode mnemonic and positional operands at the beginning of 32 byte area initialized to hex FF.
3. Generated object code for assembly of DC statement defining expected object code for the instruction type is placed 16 bytes into the 32 byte area.

For the above example branch on condition instructions, a call is made to the following TEST_RX macro:

```

MACRO
&LAB TYPE_RX      &OP,&P1,&P2
      GBLC &LAB_OP,&OP_LAB
&HEX SETC  '&LAB'(3,2)
      AIF (N'&SYSLIST EQ 3 AND K'&LAB EQ 4)
&OP_LAB  &OP  &P1,&P2
&LAB_OP ORG &OP_LAB+16

```

```

DC  X'&HEX',AL1(&P1*16+X2),AL2(B2*256*16+D2)
AELSEIF (N'&SYSLIST EQ 2 AND K'&LAB EQ 5)
&OP_LAB  &OP  &P1
&HEXCC SETC  '&LAB'(5,1)
&ACC SETA  X2A('&HEXCC')
&LAB_OP ORG &OP_LAB+16
DC  X'&HEX',AL1(&ACC*16+X2),AL2(B2*256*16+D2)
AELSE
MNOTE 12,'RX INVALID OPERAND COUNT &LAB_OP '
AEND
MEND

```

The above sample TYPE_RX macro checks the number of operands passed and generates target DC object code with explicit M1 operand for opcode such as DC or substitutes implied M1 field defined as label suffix for extended mnemonic opcode such as BE. The macro uses structured programming extensions to the z390 macro assembler AIF, AELSEIF, and AEND. The generated object code in the BAL file is HLASM compatible.

The z390 assembler produced the following listing for the BC instruction:

```

000EB4          (3/95)3176=P_47 TEST_OP RX,BC,M1,D2(X2,B2)
000EB4 45C0D06E    000076  (2/37)3177=    BAL  R12,CHECKZOP
000EB8 FFFFFFFFFFFFFFFF  (2/38)3178=    DC  32X'FF'
000ED8      000EB8    (2/39)3179=    ORG *-32
000EB8 47BECOC0    (2/692)3181=BC_P_47  BC  M1,D2(X2,B2)
000EBC      000EC8    (2/693)3182=P_47_BC ORG BC_P_47+16
000EC8 47BECOC0    (2/694)3183= DC
X'47',AL1(M1*16+X2),AL2(B2*256*16+D2)
000ECC      000ED8    (2/50)3185=    ORG

```

The IBM HLASM assembler produced the following listing for the BC instruction:

```

1218 *MCALL #= 201 LV= 1 P_47 TEST_OP RX,BC,M1,D2(X2,B2)
 000EBC 45C0 D06E    00076 1219      BAL  R12,CHECKZOP
 000EC0 FFFFFFFFFFFFFF  1220      DC  32X'FF'
 000EE0      00EE0 00EC0 1221      ORG *-32
1222 *MCALL #= 202 LV= 2 P_47  TYPE_RX  BC,M1,D2(X2,B2)
 000EC0 47BE COCO    000C0 1223 BC_P_47  BC  M1,D2(X2,B2)
 000EC4      00EC4 00ED0 1224 P_47_BC ORG BC_P_47+16
 000ED0 47BECOC0    1225 DC  X'47',AL1(M1*16+X2),AL2(B2*256*16+D2)
1226 *MEXIT #= 202 LV= 2 TYPE_RX
 000ED4      00ED4 00EE0 1227      ORG

```

The called mainline ZOPCHECK verification routine performs the following functions for each opcode:

1. Verify that the 32 byte area is not still set to x'FF' indicating the called instruction type macro failed to generate the expected code for the mnemonic opcode. If there is no code, issue error message and count missing opcodes. This can and did occur during development due to logic errors and omitted code in the 40 instruction type macros.
2. Verify the assembled object code in the first 16 bytes of area matches the DC generated expected object code in the 2nd 16 bytes. If the object code does not match, generate a snap dump of the 32 byte area which fits on 2 lines with assembled code directly above DC expected code. During development there were a number of these snap dump differences due to such things as mask fields not appearing in the object code in the same order as the positional operands. For vector instructions with up to 4 vector registers with values from 0 to 31, the 4 bit register fields have to be set to low 4 bits of register number, plus the separate RXB 4 bit field has to have corresponding register bit set to 1 if register greater than 15.
3. Check for end of the opcode table and if not found, return to the next entry in the opcode table following the 32 byte area.

As an additional verification of the ZOPCHECK results, the generated BAL code from z390 assembly has been uploaded to an IBM mainframe and run using HLASM assembler. It is fair to say that the HLASM assembler does a lot more error checking than the z390 assembler. For example, HLASM checks for specific mask bit settings for specific instructions, relative addresses instead of absolute halfword offsets, and register restrictions such as floating-point registers. Z390 does not catch many of these errors until execution time. To correct all of the HLASM errors would require changing the operands to match each instruction which would conflict with the goal of keeping the operands consistent with the POP naming conventions. Two missing opcode mnemonics out of the 2357 were found using HLASM: DIAG (diagnose) and SIE (start interpretive execution). These were added by z390 user request even though they are not documented in the POP. These instructions are used to communicate with different mainframe virtual machine host systems such as VM.

I hope readers find this paper and its appendix useful. Having all of the operation codes, mnemonics, extended mnemonics, and operands in one table which can be verified whenever changes or additions are made has been very useful to me as a z390 open source software developer. Please send corrections and suggestions to [Don Higgins](#).

References:

1. [**www.Z390.info**](http://www.Z390.info) - Download z390 with zopcheck files to run on Windows, Linus, or Mac. See zopcheck directory for source files, batch command file, and assembly output files.
2. [**www.ibm.com/support/pages/zarchitecture-principles-operation**](http://www.ibm.com/support/pages/zarchitecture-principles-operation) - IBM z/Architecture Principles of Operation (SA22-7832-12) **published in September 2019**
3. [**https://www-01.ibm.com/servers/resourcelink/svc00100.nsf/pages/zOSV2R3sc264940/\\$file/asmr1023.pdf**](https://www-01.ibm.com/servers/resourcelink/svc00100.nsf/pages/zOSV2R3sc264940/$file/asmr1023.pdf) IBM HLASM Language Reference
4. [**https://www.ibm.com/support/knowledgecenter/SSLTBW_2.1.0/com.ibm.zos.v2r1.assma400/asmr1021108.htm**](https://www.ibm.com/support/knowledgecenter/SSLTBW_2.1.0/com.ibm.zos.v2r1.assma400/asmr1021108.htm) IBM Branching with Extended Mnemonic Codes
5. [**https://www.ibm.com/support/pages/apar/PK87960**](https://www.ibm.com/support/pages/apar/PK87960) IBM CPU Measurement Instructions and Rename Certain Mnemonics
6. [**https://www.ibm.com/support/pages/sites/default/files/inline-files/DFSORT%20User%20Guide%20for%20PH03207.pdf**](https://www.ibm.com/support/pages/sites/default/files/inline-files/DFSORT%20User%20Guide%20for%20PH03207.pdf) DFSORT User Guide IBM Integrated Accelerator for Z Sort (PH03207)

Appendix 1: Release notes for version V1.1

The following additional missing instructions have been added:

```
BRHL P_C024 TEST_OP RIL,BRHL,I2 v11
BRPL P_C024 TEST_OP RIL,BRPL,I2 v11
ECCTR P_B2E4 TEST_OP RRE,ECCTR,R1,R2 V11
ECPGA P_B2ED TEST_OP RRE,ECPGA,R1,R2 V11
EPCTR P_B2E5 TEST_OP RRE,EPCTR,R1,R2 V11
JC P_A74 TEST_OP RI,JC,M1,I2 V11
JCTH P_CC6 TEST_OP RI,JCTH,M1,I2 V11
JLC P_C04 TEST_OP RIL,JLC,M1,I2 V11
JLH P_C024 TEST_OP RIL,JLH,I2 v11
JLP P_C024 TEST_OP RIL,JLP,I2 v11
LCCTL P_B284 TEST_OP S,LCCTL,D1(B1)
LPCTL P_B285 TEST_OP S,LPCTL,D1(B1)
LPP P_B280 TEST_OP S,LPP,D1(B1)
LSCTL P_B287 TEST_OP S,LSCTL,D1(B1)
QCTRI P_B28E TEST_OP S,QCTRI,D1(B1)
QSI P_B286 TEST_OP S,QSI,D1(B1)
SCCTR P_B2E0 TEST_OP RRE,SCCTR,R1,R2
SORTL P_B938 TEST_OP RRE,SORTL,R1,R2
SPCTR P_B2E1 TEST_OP RRE,SPCTR,R1,R2
VFAEZP P_E782 TEST_OP VRR,VFAEZP,V1,V2,V3,M4
VFAEZP P_E782_P3 TEST_OP VRR,VFAEZP,V1,V2,V3
```

Appendix 2: ZOPCODES.CPY Opcode Macro Calls with type, mnemonic, and positional operands

P_0101 TEST_OP E,PR
S_0102 TEST_OP E,UPT
P_0104 TEST_OP E,PTFF
S_0107 TEST_OP E,SCKPF
P_010A TEST_OP E,PFPO
P_010B TEST_OP E,TAM
P_010C TEST_OP E,SAM24
P_010D TEST_OP E,SAM31
P_010E TEST_OP E,SAM64
S_01FF TEST_OP E,TRAP2
P_04 TEST_OP R,SPM,R1
P_05 TEST_OP RR,BALR,R1,R2
P_06 TEST_OP RR,BCTR,R1,R2
P_07 TEST_OP RR,BCR,M1,R2
P_070 TEST_OP RR,NOPR,R2
P_071 TEST_OP RR,BOR,R2
P_072 TEST_OP RR,BHR,R2
P_072 TEST_OP RR,BPR,R2
P_074 TEST_OP RR,BLR,R2
P_074 TEST_OP RR,BMR,R2
P_077 TEST_OP RR,BNER,R2
P_077 TEST_OP RR,BNZR,R2
P_078 TEST_OP RR,BER,R2
P_078 TEST_OP RR,BZR,R2
P_07B TEST_OP RR,BNLR,R2
P_07B TEST_OP RR,BNMR,R2
P_07D TEST_OP RR,BNHR,R2
P_07D TEST_OP RR,BNPR,R2
P_07E TEST_OP RR,BNOR,R2
P_07F TEST_OP RR,BR,R2
P_0A TEST_OP I,SVC,I1
P_0B TEST_OP RR,BSM,R1,R2
S_0C TEST_OP RR,BASSM,R1,R2
P_0D TEST_OP RR,BASR,R1,R2
P_0E TEST_OP RR,MVCL,R2,R4
P_0F TEST_OP RR,CLCL,R2,R4
P_10 TEST_OP RR,LPR,R1,R2
P_11 TEST_OP RR,LNR,R1,R2

P_12 TEST_OP RR,LTR,R1,R2
P_13 TEST_OP RR,LCR,R1,R2
P_14 TEST_OP RR,NR,R1,R2
P_15 TEST_OP RR,CLR,R1,R2
P_16 TEST_OP RR,OR,R1,R2
P_17 TEST_OP RR,XR,R1,R2
P_18 TEST_OP RR,LR,R1,R2
P_19 TEST_OP RR,CR,R1,R2
P_1A TEST_OP RR,AR,R1,R2
P_1B TEST_OP RR,SR,R1,R2
P_1C TEST_OP RR,MR,R2,R4
P_1D TEST_OP RR,DR,R2,R4
P_1E TEST_OP RR,ALR,R1,R2
P_1F TEST_OP RR,SLR,R1,R2
P_20 TEST_OP RR,LPDR,R1,R2
P_21 TEST_OP RR,LNDR,R1,R2
P_22 TEST_OP RR,LTDR,R1,R2
P_23 TEST_OP RR,LCDR,R1,R2
P_24 TEST_OP RR,HDR,R1,R2
P_25 TEST_OP RR,LDXR,R1,R2
P_25 TEST_OP RR,LRDR,R1,R2
P_26 TEST_OP RR,MXR,R1,R2
P_27 TEST_OP RR,MXDR,R1,R2
P_28 TEST_OP RR,LDR,R1,R2
P_29 TEST_OP RR,CDR,R1,R2
P_2A TEST_OP RR,ADR,R1,R2
P_2B TEST_OP RR,SDR,R1,R2
P_2C TEST_OP RR,MDR,R1,R2
P_2D TEST_OP RR,DDR,R1,R2
P_2E TEST_OP RR,AWR,R1,R2
P_2F TEST_OP RR,SWR,R1,R2
P_30 TEST_OP RR,LPER,R1,R2
P_31 TEST_OP RR,LNER,R1,R2
P_32 TEST_OP RR,LTER,R1,R2
P_33 TEST_OP RR,LCER,R1,R2
P_34 TEST_OP RR,HER,R1,R2
P_35 TEST_OP RR,LEDR,R1,R2
P_35 TEST_OP RR,LRER,R1,R2
P_36 TEST_OP RR,AXR,R1,R2
P_37 TEST_OP RR,SXR,R1,R2
P_38 TEST_OP RR,LER,R1,R2

P_39 TEST_OP RR,CER,R1,R2
P_3A TEST_OP RR,AER,R1,R2
P_3B TEST_OP RR,SER,R1,R2
P_3C TEST_OP RR,MDER,R1,R2
P_3C TEST_OP RR,MER,R1,R2
P_3D TEST_OP RR,DER,R1,R2
P_3E TEST_OP RR,AUR,R1,R2
P_3F TEST_OP RR,SUR,R1,R2
P_40 TEST_OP RX,STH,R1,D2(X2,B2)
P_41 TEST_OP RX,LA,R1,D2(X2,B2)
P_42 TEST_OP RX,STC,R1,D2(X2,B2)
P_43 TEST_OP RX,IC,R1,D2(X2,B2)
P_44 TEST_OP RX,EX,R1,D2(X2,B2)
P_45 TEST_OP RX,BAL,R1,D2(X2,B2)
P_46 TEST_OP RX,BCT,R1,D2(X2,B2)
P_47 TEST_OP RX,BC,M1,D2(X2,B2)
P_470 TEST_OP RX,NOP,D2(X2,B2)
P_471 TEST_OP RX,BO,D2(X2,B2)
P_472 TEST_OP RX,BH,D2(X2,B2)
P_472 TEST_OP RX,BP,D2(X2,B2)
P_474 TEST_OP RX,BL,D2(X2,B2)
P_474 TEST_OP RX,BM,D2(X2,B2)
P_477 TEST_OP RX,BNE,D2(X2,B2)
P_477 TEST_OP RX,BNZ,D2(X2,B2)
P_478 TEST_OP RX,BE,D2(X2,B2)
P_478 TEST_OP RX,BZ,D2(X2,B2)
P_47B TEST_OP RX,BNL,D2(X2,B2)
P_47B TEST_OP RX,BNM,D2(X2,B2)
P_47D TEST_OP RX,BNH,D2(X2,B2)
P_47D TEST_OP RX,BNP,D2(X2,B2)
P_47E TEST_OP RX,BNO,D2(X2,B2)
P_47F TEST_OP RX,B,D2(X2,B2)
P_48 TEST_OP RX,LH,R1,D2(X2,B2)
P_49 TEST_OP RX,CH,R1,D2(X2,B2)
P_4A TEST_OP RX,AH,R1,D2(X2,B2)
P_4B TEST_OP RX,SH,R1,D2(X2,B2)
P_4C TEST_OP RX,MH,R1,D2(X2,B2)
P_4D TEST_OP RX,BAS,R1,D2(X2,B2)
P_4E TEST_OP RX,CVD,R1,D2(X2,B2)
P_4F TEST_OP RX,CVB,R1,D2(X2,B2)
P_50 TEST_OP RX,ST,R1,D2(X2,B2)

P_51 TEST_OP RX,LAE,R1,D2(X2,B2)
P_54 TEST_OP RX,N,R1,D2(X2,B2)
P_55 TEST_OP RX,CL,R1,D2(X2,B2)
P_56 TEST_OP RX,O,R1,D2(X2,B2)
P_57 TEST_OP RX,X,R1,D2(X2,B2)
P_58 TEST_OP RX,L,R1,D2(X2,B2)
P_59 TEST_OP RX,C,R1,D2(X2,B2)
P_5A TEST_OP RX,A,R1,D2(X2,B2)
P_5B TEST_OP RX,S,R1,D2(X2,B2)
P_5C TEST_OP RX,M,R1,D2(X2,B2)
P_5D TEST_OP RX,D,R1,D2(X2,B2)
P_5E TEST_OP RX,AL,R1,D2(X2,B2)
P_5F TEST_OP RX,SL,R1,D2(X2,B2)
P_60 TEST_OP RX,STD,R1,D2(X2,B2)
P_67 TEST_OP RX,MXD,R1,D2(X2,B2)
P_68 TEST_OP RX,LD,R1,D2(X2,B2)
P_69 TEST_OP RX,CD,R1,D2(X2,B2)
P_6A TEST_OP RX,AD,R1,D2(X2,B2)
P_6B TEST_OP RX,SD,R1,D2(X2,B2)
P_6C TEST_OP RX,MD,R1,D2(X2,B2)
P_6D TEST_OP RX,DD,R1,D2(X2,B2)
P_6E TEST_OP RX,AW,R1,D2(X2,B2)
P_6F TEST_OP RX,SW,R1,D2(X2,B2)
P_70 TEST_OP RX,STE,R1,D2(X2,B2)
P_71 TEST_OP RX,MS,R1,D2(X2,B2)
P_78 TEST_OP RX,LE,R1,D2(X2,B2)
P_79 TEST_OP RX,CE,R1,D2(X2,B2)
P_7A TEST_OP RX,AE,R1,D2(X2,B2)
P_7B TEST_OP RX,SE,R1,D2(X2,B2)
P_7C TEST_OP RX,MDE,R1,D2(X2,B2)
P_7C TEST_OP RX,ME,R1,D2(X2,B2)
P_7D TEST_OP RX,DE,R1,D2(X2,B2)
P_7E TEST_OP RX,AU,R1,D2(X2,B2)
P_7F TEST_OP RX,SU,R1,D2(X2,B2)
S_80 TEST_OP SI,SSM,D2(B2)
S_82 TEST_OP SI,LPSW,D2(B2)
P_83 TEST_OP RS,DIAGNOSE,R1,R3,D2(B2) RPI 2213 NOT HLASM
P_83 TEST_OP RS,DIAG,R1,R3,D2(B2) RPI 2213 NOT HLASM
P_84 TEST_OP RSI,BRXH,R1,R3,I2
P_84 TEST_OP RSI,JXH,R1,R3,I2
P_85 TEST_OP RSI,BRXLE,R1,R3,I2

P_85 TEST_OP RSI,JXLE,R1,R3,I2
P_86 TEST_OP RS,BXH,R1,R3,D2(B2)
P_87 TEST_OP RS,BXLE,R1,R3,D2(B2)
P_88 TEST_OP RS,SRL,R1,D2(B2)
P_89 TEST_OP RS,SLL,R1,D2(B2)
P_8A TEST_OP RS,SRA,R1,D2(B2)
P_8B TEST_OP RS,SLA,R1,D2(B2)
P_8C TEST_OP RS,SRDL,R1,D2(B2)
P_8D TEST_OP RS,SLDL,R1,D2(B2)
P_8E TEST_OP RS,SRDA,R1,D2(B2)
P_8F TEST_OP RS,SLDA,R1,D2(B2)
P_90 TEST_OP RS,STM,R1,R3,D2(B2)
P_91 TEST_OP SI,TM,D1(B1),I2
P_92 TEST_OP SI,MVI,D1(B1),I2
P_93 TEST_OP SI,TS,D2(B2)
P_94 TEST_OP SI,NI,D1(B1),I2
P_95 TEST_OP SI,CLI,D1(B1),I2
P_96 TEST_OP SI,OI,D1(B1),I2
P_97 TEST_OP SI,XI,D1(B1),I2
P_98 TEST_OP RS,LM,R1,R3,D2(B2)
S_99 TEST_OP RS,TRACE,R1,R3,D2(B2)
P_9A TEST_OP RS,LAM,R1,R3,D2(B2)
P_9B TEST_OP RS,STAM,R1,R3,D2(B2)
P_A50 TEST_OP RI,IIHH,R1,I2
P_A51 TEST_OP RI,IIHL,R1,I2
P_A52 TEST_OP RI,IILH,R1,I2
P_A53 TEST_OP RI,ILL,R1,I2
P_A54 TEST_OP RI,NIHH,R1,I2
P_A55 TEST_OP RI,NIHL,R1,I2
P_A56 TEST_OP RI,NILH,R1,I2
P_A57 TEST_OP RI,NILL,R1,I2
P_A58 TEST_OP RI,OIHH,R1,I2
P_A59 TEST_OP RI,OIHL,R1,I2
P_A5A TEST_OP RI,OILH,R1,I2
P_A5B TEST_OP RI,OILL,R1,I2
P_A5C TEST_OP RI,LLIHH,R1,I2
P_A5D TEST_OP RI,LLIHL,R1,I2
P_A5E TEST_OP RI,LLLH,R1,I2
P_A5F TEST_OP RI,LLILL,R1,I2
P_A70 TEST_OP RI,TMH,R1,I2
P_A70 TEST_OP RI,TMLH,R1,I2

P_A71 TEST_OP RI,TML,R1,I2
P_A71 TEST_OP RI,TMLL,R1,I2
P_A72 TEST_OP RI,TMHH,R1,I2
P_A73 TEST_OP RI,TMHL,R1,I2
P_A74 TEST_OP RI,BRC,M1,I2
P_A74 TEST_OP RI,JC,M1,I2 RPI 2221
P_A740 TEST_OP RI,JNOP,I2
P_A741 TEST_OP RI,BRO,I2
P_A741 TEST_OP RI,JO,I2
P_A742 TEST_OP RI,BRH,I2
P_A742 TEST_OP RI,BRP,I2
P_A742 TEST_OP RI,JH,I2
P_A742 TEST_OP RI,JP,I2
P_A744 TEST_OP RI,BRL,I2
P_A744 TEST_OP RI,BRM,I2
P_A744 TEST_OP RI,JL,I2
P_A744 TEST_OP RI,JM,I2
P_A747 TEST_OP RI,BRNE,I2
P_A747 TEST_OP RI,BRNZ,I2
P_A747 TEST_OP RI,JNE,I2
P_A747 TEST_OP RI,JNZ,I2
P_A748 TEST_OP RI,BRE,I2
P_A748 TEST_OP RI,BRZ,I2
P_A748 TEST_OP RI,JE,I2
P_A748 TEST_OP RI,JZ,I2
P_A74B TEST_OP RI,BRNL,I2
P_A74B TEST_OP RI,BRNM,I2
P_A74B TEST_OP RI,JNL,I2
P_A74B TEST_OP RI,JNM,I2
P_A74D TEST_OP RI,BRNH,I2
P_A74D TEST_OP RI,BRNP,I2
P_A74D TEST_OP RI,JNH,I2
P_A74D TEST_OP RI,JNP,I2
P_A74E TEST_OP RI,BRNO,I2
P_A74E TEST_OP RI,JNO,I2
P_A74F TEST_OP RI,BRU,I2
P_A74F TEST_OP RI,J,I2
P_A75 TEST_OP RI,BRAS,R1,I2
P_A75 TEST_OP RI,JAS,R1,I2
P_A76 TEST_OP RI,BRCT,R1,I2
P_A76 TEST_OP RI,JCT,R1,I2

P_A77 TEST_OP RI,BRCTG,R1,I2
P_A77 TEST_OP RI,JCTG,R1,I2
P_A78 TEST_OP RI,LHI,R1,I2
P_A79 TEST_OP RI,LGHI,R1,I2
P_A7A TEST_OP RI,AHI,R1,I2
P_A7B TEST_OP RI,AGHI,R1,I2
P_A7C TEST_OP RI,MHI,R1,I2
P_A7D TEST_OP RI,MGHI,R1,I2
P_A7E TEST_OP RI,CHI,R1,I2
P_A7F TEST_OP RI,CGHI,R1,I2
P_A8 TEST_OP RS,MVCLE,R1,R3,D2(B2)
P_A9 TEST_OP RS,CLCLE,R1,R3,D2(B2)
S_AC TEST_OP SI,STNSM,D1(B1),I2
S_AD TEST_OP SI,STOSM,D1(B1),I2
S_AE TEST_OP RS,SIGP,R1,R3,D2(B2)
P_AF TEST_OP SI,MC,D1(B1),I2
S_B1 TEST_OP RX,LRA,R1,D2(X2,B2)
S_B202 TEST_OP S,STIDP,D2(B2)
S_B204 TEST_OP S,SCK,D2(B2)
P_B205 TEST_OP S,STCK,D2(B2)
S_B206 TEST_OP S,SCKC,D2(B2)
S_B207 TEST_OP S,STCKC,D2(B2)
P_B208 TEST_OP S,SPT,D2(B2)
P_B209 TEST_OP S,STPT,D2(B2)
S_B20A TEST_OP S,SPKA,D2(B2)
S_B20B TEST_OP S,IPK
S_B20D TEST_OP S,PTLB
S_B210 TEST_OP S,SPX,D2(B2)
S_B211 TEST_OP S,STPX,D2(B2)
S_B212 TEST_OP S,STAP,D2(B2)
S_B214 TEST_OP S,SIE,D2(B2) RPI 2213 NOT HLASM
P_B218 TEST_OP S,PC,D2(B2)
S_B219 TEST_OP S,SAC,D2(B2)
P_B21A TEST_OP S,CFC,D2(B2)
S_B221_P2 TEST_OP RRF,IPTE,R1,R2
S_B221_P3 TEST_OP RRF,IPTE,R1,R2,R3
S_B221_P4 TEST_OP RRF,IPTE,R1,R2,R3,M4
P_B222 TEST_OP RRE,IPM,R1
S_B223 TEST_OP RRE,IVSK,R1,R2
S_B224 TEST_OP RRE,IAC,R1
S_B225 TEST_OP RRE,SSAR,R1

S_B226 TEST_OP RRE,EPAR,R1
S_B227 TEST_OP RRE,ESAR,R1
P_B228 TEST_OP RRE,PT,R1,R2
S_B229 TEST_OP RRE,ISKE,R1,R2
S_B22A TEST_OP RRE,RRBE,R1,R2
S_B22B_P2 TEST_OP RRE,SSKE,R1,R2
S_B22B_P3 TEST_OP RRE,SSKE,R1,R2,M3
S_B22C TEST_OP RRE,TB,R1,R2
P_B22D TEST_OP RRE,DXR,R1,R2
S_B22E TEST_OP RRE,PGIN,R1,R2
S_B22F TEST_OP RRE,PGOUT,R1,R2
S_B230 TEST_OP S,CSCH
S_B231 TEST_OP S,HSCH
S_B232 TEST_OP S,MSCH,D2(B2)
S_B233 TEST_OP S,SSCH,D2(B2)
S_B234 TEST_OP S,STSCH,D2(B2)
S_B235 TEST_OP S,TSCH,D2(B2)
S_B236 TEST_OP S,TPI,D2(B2)
S_B237 TEST_OP S,SAL
S_B238 TEST_OP S,RSCH
S_B239 TEST_OP S,STCRW,D2(B2)
S_B23A TEST_OP S,STCPS,D2(B2)
S_B23B TEST_OP S,RCHP
S_B23C TEST_OP S,SCHM
P_B240 TEST_OP RRE,BAKR,R1,R2
P_B241 TEST_OP RRE,CKSM,R1,R2
P_B244 TEST_OP RRE,SQDR,R1,R2
P_B245 TEST_OP RRE,SQER,R1,R2
S_B246 TEST_OP RRE,STURA,R1,R2
S_B247 TEST_OP RRE,MSTA,R1
S_B248 TEST_OP RRE,PALB
P_B249 TEST_OP RRE,EREG,R1,R2
P_B24A TEST_OP RRE,ESTA,R1,R2
S_B24B TEST_OP RRE,LURA,R1,R2
S_B24C TEST_OP RRE,TAR,R1,R2
P_B24D TEST_OP RRE,CPYA,R1,R2
P_B24E TEST_OP RRE,SAR,R1,R2
P_B24F TEST_OP RRE,EAR,R1,R2
S_B250 TEST_OP RRE,CSP,R1,R2
P_B252 TEST_OP RRE,MSR,R1,R2
S_B254 TEST_OP RRE,MVPG,R1,R2

P_B255 TEST_OP RRE,MVST,R1,R2
P_B257 TEST_OP RRE,CUSE,R1,R2
S_B258 TEST_OP RRE,BSG,R1,R2
S_B25A TEST_OP RRE,BSA,R1,R2
P_B25D TEST_OP RRE,CLST,R1,R2
P_B25E TEST_OP RRE,SRST,R1,R2
P_B263 TEST_OP RRE,CMPSC,R1,R2
S_B276 TEST_OP S,XSCH
S_B277 TEST_OP S,RP,D2(B2)
P_B278 TEST_OP S,STCKE,D2(B2)
S_B279 TEST_OP S,SACF,D2(B2)
P_B27C TEST_OP S,STCKF,D2(B2)
S_B27D TEST_OP S,STSI,D2(B2)
P_B280 TEST_OP S,LPP,D1(B1) RPI 2221
P_B284 TEST_OP S,LCCTL,D1(B1) RPI 2221
P_B285 TEST_OP S,LPCTL,D1(B1) RPI 2221
P_B286 TEST_OP S,QSI,D1(B1) RPI 2221
P_B287 TEST_OP S,LSCTL,D1(B1) RPI 2221
P_B28E TEST_OP S,QCTRI,D1(B1) RPI 2221
P_B299 TEST_OP S,SRNM,D2(B2)
P_B29C TEST_OP S,STFPC,D2(B2)
P_B29D TEST_OP S,LFPC,D2(B2)
P_B2A5 TEST_OP RRE,TRE,R1,R2
P_B2A6_P2 TEST_OP RRE,CU21,R1,R2
P_B2A6_P3 TEST_OP RRE,CU21,R1,R2,M3
P_B2A6_P2 TEST_OP RRE,CUUTF,R1,R2
P_B2A6_P3 TEST_OP RRE,CUUTF,R1,R2,M3
P_B2A7_P2 TEST_OP RRF,CU12,R1,R2
P_B2A7_P3 TEST_OP RRF,CU12,R1,R2,M3
P_B2A7_P2 TEST_OP RRF,CUTFU,R1,R2
P_B2A7_P3 TEST_OP RRF,CUTFU,R1,R2,M3
P_B2B0 TEST_OP S,STFLE,D2(B2)
S_B2B1 TEST_OP S,STFL,D2(B2)
S_B2B2 TEST_OP S,LPSWE,D2(B2)
P_B2B8 TEST_OP S,SRNMB,D2(B2)
P_B2B9 TEST_OP S,SRNMT,D2(B2)
P_B2BD TEST_OP S,LFAS,D2(B2)
P_B2E0 TEST_OP RRE,SCCTR,R1,R2 RPI 2221
P_B2E1 TEST_OP RRE,SPCTR,R1,R2 RPI 2221
P_B2E4 TEST_OP RRE,ECCTR,R1,R2 RPI 2221
P_B2E5 TEST_OP RRE,EPCTR,R1,R2 RPI 2221

P_B2E8 TEST_OP RRF,PPA,R1,R2,M3 Z15?
P_B2EC TEST_OP RRE,ETND,R1 Z15?
P_B2ED TEST_OP RRE,ECPGA,R1,R2 RPI 2221
P_B2F8 TEST_OP S,TEND Z15?
P_B2FA TEST_OP IE,NIAI,I1,I2 Z15?
P_B2FC TEST_OP S,TABORT,D2(B2) Z15?
S_B2FF TEST_OP S,TRAP4,D2(B2)
P_B300 TEST_OP RRE,LPEBR,R1,R2
P_B301 TEST_OP RRE,LNEBR,R1,R2
P_B302 TEST_OP RRE,LTEBR,R1,R2
P_B303 TEST_OP RRE,LCEBR,R1,R2
P_B304 TEST_OP RRE,LDEBR,R1,R2
P_B305 TEST_OP RRE,LXDBR,R1,R2
P_B306 TEST_OP RRE,LXEGR,R1,R2
P_B307 TEST_OP RRE,MXDBR,R1,R2
P_B308 TEST_OP RRE,KEBR,R1,R2
P_B309 TEST_OP RRE,CEBR,R1,R2
P_B30A TEST_OP RRE,AEBR,R1,R2
P_B30B TEST_OP RRE,SEBR,R1,R2
P_B30C TEST_OP RRE,MDEBR,R1,R2
P_B30D TEST_OP RRE,DEBR,R1,R2
P_B30E TEST_OP RRD,MAEGR,R1,R3,R2
P_B30F TEST_OP RRD,MSEBR,R1,R3,R2
P_B310 TEST_OP RRE,LPDBR,R1,R2
P_B311 TEST_OP RRE,LNDBR,R1,R2
P_B312 TEST_OP RRE,LTDBR,R1,R2
P_B313 TEST_OP RRE,LCDGR,R1,R2
P_B314 TEST_OP RRE,SQEGR,R1,R2
P_B315 TEST_OP RRE,SQDBR,R1,R2
P_B316 TEST_OP RRE,SQXBR,R1,R2
P_B317 TEST_OP RRE,MEEBR,R1,R2
P_B318 TEST_OP RRE,KDBR,R1,R2
P_B319 TEST_OP RRE,CDBR,R1,R2
P_B31A TEST_OP RRE,ADBR,R1,R2
P_B31B TEST_OP RRE,SDBR,R1,R2
P_B31C TEST_OP RRE,MDBR,R1,R2
P_B31D TEST_OP RRE,DDBR,R1,R2
P_B31E TEST_OP RRD,MADBR,R1,R3,R2
P_B31F TEST_OP RRD,MSDBR,R1,R3,R2
P_B324 TEST_OP RRE,LDER,R1,R2
P_B325 TEST_OP RRE,LXDR,R1,R2

P_B326 TEST_OP RRE,LXER,R1,R2
P_B32E TEST_OP RRD,MAER,R1,R3,R2
P_B32F TEST_OP RRD,MSER,R1,R3,R2
P_B336 TEST_OP RRE,SQXR,R1,R2
P_B337 TEST_OP RRE,MEER,R1,R2
P_B338 TEST_OP RRD,MAYLR,R1,R3,R2
P_B339 TEST_OP RRD,MYLR,R1,R3,R2
P_B33A TEST_OP RRD,MAYR,R1,R3,R2
P_B33B TEST_OP RRD,MYR,R1,R3,R2
P_B33C TEST_OP RRD,MAYHR,R1,R3,R2
P_B33D TEST_OP RRD,MYHR,R1,R3,R2
P_B33E TEST_OP RRD,MADR,R1,R3,R2
P_B33F TEST_OP RRD,MSDR,R1,R3,R2
P_B340 TEST_OP RRE,LPXBR,R1,R2
P_B341 TEST_OP RRE,LNXBR,R1,R2
P_B342 TEST_OP RRE,LTXBR,R1,R2
P_B343 TEST_OP RRE,LCXBR,R1,R2
P_B344 TEST_OP RRE,LEDBR,R1,R2
P_B344 TEST_OP RRF,LEDBRA,R1,M3,R2,M4
P_B345 TEST_OP RRE,LDXBR,R1,R2
P_B345 TEST_OP RRF,LDXBRA,R1,M3,R2,M4
P_B346 TEST_OP RRE,LEXBR,R1,R2
P_B346 TEST_OP RRF,LEXBRA,R1,M3,R2,M4
P_B347 TEST_OP RRF,FIXBR,R1,M3,R2,M4
P_B347 TEST_OP RRF,FIXBRA,R1,M3,R2,M4
P_B348 TEST_OP RRE,KXBR,R1,R2
P_B349 TEST_OP RRE,CXBR,R1,R2
P_B34A TEST_OP RRE,AXBR,R1,R2
P_B34B TEST_OP RRE,SXBR,R1,R2
P_B34C TEST_OP RRE,MXBR,R1,R2
P_B34D TEST_OP RRE,DXBR,R1,R2
P_B350 TEST_OP RRF,TBEDR,R1,M3,R2
P_B351 TEST_OP RRF,TBDR,R1,M3,R2
P_B353 TEST_OP RRF,DIEBR,R1,R3,R2,M4
P_B357 TEST_OP RRF,FIEBR,R1,M3,R2
P_B357 TEST_OP RRF,FIEBRA,R1,M3,R2,M4
P_B358 TEST_OP RRE,THDER,R1,R2
P_B359 TEST_OP RRE,THDR,R1,R2
P_B35B TEST_OP RRF,DIDBR,R1,R3,R2,M4
P_B35F TEST_OP RRF,FIDBR,R1,M3,R2
P_B35F TEST_OP RRF,FIDBRA,R1,M3,R2,M4

P_B360 TEST_OP RRE,LPXR,R1,R2
P_B361 TEST_OP RRE,LNXR,R1,R2
P_B362 TEST_OP RRE,LTXR,R1,R2
P_B363 TEST_OP RRE,LCXR,R1,R2
P_B365 TEST_OP RRE,LXR,R1,R2
P_B366 TEST_OP RRE,LEXR,R1,R2
P_B367 TEST_OP RRE,FIXR,R1,R2
P_B369 TEST_OP RRE,CXR,R1,R2
P_B370 TEST_OP RRE,LPDFR,R1,R2
P_B371 TEST_OP RRE,LNDFR,R1,R2
P_B372 TEST_OP RRF,CPSDR,R1,R3,R2
P_B373 TEST_OP RRE,LCDFR,R1,R2
P_B374 TEST_OP RRE,LZER,R1
P_B375 TEST_OP RRE,LZDR,R1
P_B376 TEST_OP RRE,LZXR,R1
P_B377 TEST_OP RRE,FIER,R1,R2
P_B37F TEST_OP RRE,FIDR,R1,R2
P_B384 TEST_OP RRE,SFPC,R1
P_B385 TEST_OP RRE,SFASR,R1
P_B38C TEST_OP RRE,EFPC,R1
P_B390 TEST_OP RRF,CELFBR,R1,M3,R2,M4
P_B391 TEST_OP RRF,CDLFBR,R1,M3,R2,M4
P_B392 TEST_OP RRF,CXLFBR,R1,M3,R2,M4
P_B394 TEST_OP RRE,CEFBR,R1,R2
P_B394 TEST_OP RRF,CEFBRA,R1,M3,R2,M4
P_B395 TEST_OP RRE,CDFBR,R1,R2
P_B395 TEST_OP RRF,CDFBRA,R1,M3,R2,M4
P_B396 TEST_OP RRE,CXFBR,R1,R2
P_B396 TEST_OP RRF,CXFTRA,R1,M3,R2,M4
P_B398 TEST_OP RRF,CFEBR,R1,M3,R2
P_B398 TEST_OP RRF,CFEBRA,R1,M3,R2,M4
P_B399 TEST_OP RRF,CFDBR,R1,M3,R2
P_B399 TEST_OP RRF,CFDBRA,R1,M3,R2,M4
P_B39A TEST_OP RRF,CFXBR,R1,M3,R2
P_B39A TEST_OP RRF,CFXBRA,R1,M3,R2,M4
P_B39C TEST_OP RRF,CLFEBR,R1,M3,R2,M4
P_B39D TEST_OP RRF,CLFDBR,R1,M3,R2,M4
P_B39E TEST_OP RRF,CLFXBR,R1,M3,R2,M4
P_B3A0 TEST_OP RRF,CELGBR,R1,M3,R2,M4
P_B3A1 TEST_OP RRF,CDLGBR,R1,M3,R2,M4
P_B3A2 TEST_OP RRF,CXLGBR,R1,M3,R2,M4

P_B3A4 TEST_OP RRE,CEGBR,R1,R2
P_B3A4 TEST_OP RRF,CEGBRA,R1,M3,R2,M4
P_B3A5 TEST_OP RRE,CDGBR,R1,R2
P_B3A5 TEST_OP RRF,CDGBRA,R1,M3,R2,M4
P_B3A6 TEST_OP RRE,CXGBR,R1,R2
P_B3A6 TEST_OP RRF,CXGBRA,R1,M3,R2,M4
P_B3A8 TEST_OP RRF,CGEBR,R1,M3,R2
P_B3A8 TEST_OP RRF,CGEBRA,R1,M3,R2,M4
P_B3A9 TEST_OP RRF,CGDBR,R1,M3,R2
P_B3A9 TEST_OP RRF,CGDBRA,R1,M3,R2,M4
P_B3AA TEST_OP RRF,CGXBRA,R1,M3,R2
P_B3AA TEST_OP RRF,CGXBRA,R1,M3,R2,M4
P_B3AC TEST_OP RRF,CLGEBR,R1,M3,R2,M4
P_B3AD TEST_OP RRF,CLGDBR,R1,M3,R2,M4
P_B3AE TEST_OP RRF,CLGXBR,R1,M3,R2,M4
P_B3B4 TEST_OP RRE,CEFR,R1,R2
P_B3B5 TEST_OP RRE,CDFR,R1,R2
P_B3B6 TEST_OP RRE,CXFR,R1,R2
P_B3B8 TEST_OP RRF,CFER,R1,M3,R2
P_B3B9 TEST_OP RRF,CFDR,R1,M3,R2
P_B3BA TEST_OP RRF,CFXR,R1,M3,R2
P_B3C1 TEST_OP RRE,LDGR,R1,R2
P_B3C4 TEST_OP RRE,CEGR,R1,R2
P_B3C5 TEST_OP RRE,CDGR,R1,R2
P_B3C6 TEST_OP RRE,CXGR,R1,R2
P_B3C8 TEST_OP RRF,CGER,R1,M3,R2
P_B3C9 TEST_OP RRF,CGDR,R1,M3,R2
P_B3CA TEST_OP RRF,CGXR,R1,M3,R2
P_B3CD TEST_OP RRE,LGDR,R1,R2
P_B3D0 TEST_OP RRF,MDTRA,R1,R2,R3,M4
P_B3D0 TEST_OP RRR,MDTR,R1,R2,R3
P_B3D1 TEST_OP RRF,DDTR,R1,R2,R3
P_B3D1 TEST_OP RRF,DDTRA,R1,R2,R3,M4
P_B3D2 TEST_OP RRF,ADTRA,R1,R2,R3,M4
P_B3D2 TEST_OP RRR,ADTR,R1,R2,R3
P_B3D3 TEST_OP RRF,SDTRA,R1,R2,R3,M4
P_B3D3 TEST_OP RRR,SDTR,R1,R2,R3
P_B3D4 TEST_OP RRF,LDETR,R1,R2,M4
P_B3D5 TEST_OP RRF,LEDTR,R1,M3,R2,M4
P_B3D6 TEST_OP RRE,LTDTR,R1,R2
P_B3D7 TEST_OP RRF,FIDTR,R1,M3,R2,M4

P_B3D8 TEST_OP RRF,MXTRA,R1,R2,R3,M4
P_B3D8 TEST_OP RRR,MXTR,R1,R2,R3
P_B3D9 TEST_OP RRF,DXTR,R1,R2,R3
P_B3D9 TEST_OP RRF,DXTA,R1,R2,R3,M4
P_B3DA TEST_OP RRF,AXTRA,R1,R2,R3,M4
P_B3DA TEST_OP RRR,AXTR,R1,R2,R3
P_B3DB TEST_OP RRF,SXTRA,R1,R2,R3,M4
P_B3DB TEST_OP RRR,SXTR,R1,R2,R3
P_B3DC TEST_OP RRF,LXDTR,R1,R2,M4
P_B3DD TEST_OP RRF,LDXTR,R1,M3,R2,M4
P_B3DE TEST_OP RRE,LTXTR,R1,R2
P_B3DF TEST_OP RRF,FIXTR,R1,M3,R2,M4
P_B3E0 TEST_OP RRE,KDTR,R1,R2
P_B3E1 TEST_OP RRF,CGDTR,R1,M3,R2
P_B3E1 TEST_OP RRF,CGDTRA,R1,M3,R2,M4
P_B3E2 TEST_OP RRE,CUDTR,R1,R2
P_B3E3 TEST_OP RRF,CSDTR,R1,R2,M4
P_B3E4 TEST_OP RRE,CDTR,R1,R2
P_B3E5 TEST_OP RRE,EEDTR,R1,R2
P_B3E7 TEST_OP RRE,ESDTR,R1,R2
P_B3E8 TEST_OP RRE,KXTR,R1,R2
P_B3E9 TEST_OP RRF,CGXTR,R1,M3,R2
P_B3E9 TEST_OP RRF,CGXTRA,R1,M3,R2,M4
P_B3EA TEST_OP RRE,CUXTR,R1,R2
P_B3EB TEST_OP RRF,CSXTR,R1,R2,M4
P_B3EC TEST_OP RRE,CXTR,R1,R2
P_B3ED TEST_OP RRE,EEXTR,R1,R2
P_B3EF TEST_OP RRE,ESXTR,R1,R2
P_B3F1 TEST_OP RRE,CDGTR,R1,R2
P_B3F1 TEST_OP RRF,CDGTRA,R1,M3,R2,M4
P_B3F2 TEST_OP RRE,CDUTR,R1,R2
P_B3F3 TEST_OP RRE,CDSTR,R1,R2
P_B3F4 TEST_OP RRE,CEDTR,R1,R2
P_B3F5 TEST_OP RRF,QADTR,R1,R3,R2,M4
P_B3F6 TEST_OP RRF,IEDTR,R1,R3,R2
P_B3F7 TEST_OP RRF,RRDTR,R1,R3,R2,M4
P_B3F9 TEST_OP RRE,CXGTR,R1,R2
P_B3F9 TEST_OP RRF,CXGTRA,R1,M3,R2,M4
P_B3FA TEST_OP RRE,CXUTR,R1,R2
P_B3FB TEST_OP RRE,CXSTR,R1,R2
P_B3FC TEST_OP RRE,CEXTR,R1,R2

P_B3FD TEST_OP RRF,QAXTR,R1,R3,R2,M4
P_B3FE TEST_OP RRF,IEXTR,R1,R3,R2
P_B3FF TEST_OP RRF,RRXTR,R1,R3,R2,M4
S_B6 TEST_OP RS,STCTL,R1,R3,D2(B2)
S_B7 TEST_OP RS,LCTL,R1,R3,D2(B2)
P_B900 TEST_OP RRE,LPGR,R1,R2
P_B901 TEST_OP RRE,LNGR,R1,R2
P_B902 TEST_OP RRE,LTGR,R1,R2
P_B903 TEST_OP RRE,LCGR,R1,R2
P_B904 TEST_OP RRE,LGR,R1,R2
S_B905 TEST_OP RRE,LURAG,R1,R2
P_B906 TEST_OP RRE,LGBR,R1,R2
P_B907 TEST_OP RRE,LGHR,R1,R2
P_B908 TEST_OP RRE,AGR,R1,R2
P_B909 TEST_OP RRE,SGR,R1,R2
P_B90A TEST_OP RRE,ALGR,R1,R2
P_B90B TEST_OP RRE,SLGR,R1,R2
P_B90C TEST_OP RRE,MSGR,R1,R2
P_B90D TEST_OP RRE,DSGR,R1,R2
P_B90E TEST_OP RRE,EREGG,R1,R2
P_B90F TEST_OP RRE,LRVGR,R1,R2
P_B910 TEST_OP RRE,LPGFR,R1,R2
P_B911 TEST_OP RRE,LNGFR,R1,R2
P_B912 TEST_OP RRE,LTGFR,R1,R2
P_B913 TEST_OP RRE,LCGFR,R1,R2
P_B914 TEST_OP RRE,LGFR,R1,R2
P_B916 TEST_OP RRE,LLGFR,R1,R2
P_B917 TEST_OP RRE,LLGTR,R1,R2
P_B918 TEST_OP RRE,AGFR,R1,R2
P_B919 TEST_OP RRE,SGFR,R1,R2
P_B91A TEST_OP RRE,ALGFR,R1,R2
P_B91B TEST_OP RRE,SLGFR,R1,R2
P_B91C TEST_OP RRE,MSGFR,R1,R2
P_B91D TEST_OP RRE,DSGFR,R1,R2
P_B91E TEST_OP RRE,KMAC,R1,R2
P_B91F TEST_OP RRE,LRVR,R1,R2
P_B920 TEST_OP RRE,CGR,R1,R2
P_B921 TEST_OP RRE,CLGR,R1,R2
S_B925 TEST_OP RRE,STURG,R1,R2
P_B926 TEST_OP RRE,LBR,R1,R2
P_B927 TEST_OP RRE,LHR,R1,R2

S_B928 TEST_OP RRE,PCKMO Z15?
P_B929 TEST_OP RRF,KMA,R1,R3,R2 Z15?,
P_B92A TEST_OP RRE,KMF,R1,R2
P_B92B TEST_OP RRE,KMO,R1,R2
P_B92C TEST_OP RRE,PCC Z15?
P_B92D TEST_OP RRF,KMCTR,R1,R3,R2
P_B92E TEST_OP RRE,KM,R1,R2
P_B92F TEST_OP RRE,KMC,R1,R2
P_B930 TEST_OP RRE,CGFR,R1,R2
P_B931 TEST_OP RRE,CLGFR,R1,R2
P_B938 TEST_OP RRE,SORTL,R1,R2 RPI 2221
P_B939 TEST_OP RRF,DFLTCC,R1,R2,R3 Z15
P_B93A TEST_OP RRE,KDSA,R1,R2 Z15
P_B93C TEST_OP RRE,PRNO,R1,R2 Z15?
P_B93C TEST_OP RRE,PPNO,R1,R2 Z15?
P_B93E TEST_OP RRE,KIMD,R1,R2
P_B93F TEST_OP RRE,KLMD,R1,R2
P_B941 TEST_OP RRF,CFDTR,R1,M3,R2,M4
P_B942 TEST_OP RRF,CLGDTR,R1,M3,R2,M4
P_B943 TEST_OP RRF,CLFDTR,R1,M3,R2,M4
P_B946 TEST_OP RRE,BCTGR,R1,R2
P_B949 TEST_OP RRF,CFXTR,R1,M3,R2,M4
P_B94A TEST_OP RRF,CLGXTR,R1,M3,R2,M4
P_B94B TEST_OP RRF,CLFXTR,R1,M3,R2,M4
P_B951 TEST_OP RRF,CDFTR,R1,M3,R2,M4
P_B952 TEST_OP RRF,CDLGTR,R1,M3,R2,M4
P_B953 TEST_OP RRF,CDLFTR,R1,M3,R2,M4
P_B959 TEST_OP RRF,CXFTR,R1,M3,R2,M4
P_B95A TEST_OP RRF,CXLGTR,R1,M3,R2,M4
P_B95B TEST_OP RRF,CXLFTR,R1,M3,R2,M4
P_B960 TEST_OP RRF,CGRT,R1,R2,M3
P_B9602 TEST_OP RRF,CGRTH,R1,R2
P_B9604 TEST_OP RRF,CGRTL,R1,R2
P_B9606 TEST_OP RRF,CGRTNE,R1,R2
P_B9608 TEST_OP RRF,CGRTE,R1,R2
P_B960A TEST_OP RRF,CGRTNL,R1,R2
P_B960C TEST_OP RRF,CGRTNH,R1,R2
P_B961 TEST_OP RRF,CLGRT,R1,R2,M3
P_B9612 TEST_OP RRF,CLGRTH,R1,R2
P_B9614 TEST_OP RRF,CLGRTL,R1,R2
P_B9616 TEST_OP RRF,CLGRTNE,R1,R2

P_B9618 TEST_OP RRF,CLGRTE,R1,R2
P_B961A TEST_OP RRF,CLGRTNL,R1,R2
P_B961C TEST_OP RRF,CLGRTNH,R1,R2
P_B964 TEST_OP RRR,NNGRK,R1,R2,R3 Z15
P_B965 TEST_OP RRR,OCLRK,R1,R2,R3 Z15
P_B966 TEST_OP RRR,NOGRK,R1,R2,R3 Z15
P_B966 TEST_OP RRR,NOTGR,R1,R2 Z15
P_B967 TEST_OP RRR,NXGRK,R1,R2,R3 Z15
P_B972 TEST_OP RRF,CRT,R1,R2,M3
P_B9722 TEST_OP RRF,CRTTH,R1,R2
P_B9724 TEST_OP RRF,CRTL,R1,R2
P_B9726 TEST_OP RRF,CRTNE,R1,R2
P_B9728 TEST_OP RRF,CRTE,R1,R2
P_B972A TEST_OP RRF,CRTNL,R1,R2
P_B972C TEST_OP RRF,CRTNH,R1,R2
P_B973 TEST_OP RRF,CLRT,R1,R2,M3
P_B9732 TEST_OP RRF,CLRTTH,R1,R2
P_B9734 TEST_OP RRF,CLRTL,R1,R2
P_B9736 TEST_OP RRF,CLRTNE,R1,R2
P_B9738 TEST_OP RRF,CLRTE,R1,R2
P_B973A TEST_OP RRF,CLRTNL,R1,R2
P_B973C TEST_OP RRF,CLRTNH,R1,R2
P_B974 TEST_OP RRR,NNRK,R1,R2,R3 Z15
P_B975 TEST_OP RRR,OCLRK,R1,R2,R3 Z15
P_B976 TEST_OP RRR,NORK,R1,R2,R3 Z15
P_B976 TEST_OP RRR,NOTR,R1,R2 Z15
P_B977 TEST_OP RRR,NXRK,R1,R2,R3 Z15
P_B980 TEST_OP RRE,NGR,R1,R2
P_B981 TEST_OP RRE,OGR,R1,R2
P_B982 TEST_OP RRE,XGR,R1,R2
P_B983 TEST_OP RRE,FLOGR,R1,R2
P_B984 TEST_OP RRE,LLGCR,R1,R2
P_B985 TEST_OP RRE,LLGHR,R1,R2
P_B986 TEST_OP RRE,MLGR,R1,R2
P_B987 TEST_OP RRE,DLGR,R1,R2
P_B988 TEST_OP RRE,ALCGR,R1,R2
P_B989 TEST_OP RRE,SLBGR,R1,R2
P_B98A TEST_OP RRE,CSPG,R1,R2
P_B98D TEST_OP RRE,EPSW,R1,R2
S_B98E_P3 TEST_OP RRF,IDTE,R1,R3,R2
P_B98E_P4 TEST_OP RRF,IDTE,R1,R3,R2,M4

P_B98F_P3 TEST_OP RRF,CRDTE,R1,R3,R2 Z15?
P_B98F_P4 TEST_OP RRF,CRDTE,R1,R3,R2,M4 Z15?
P_B990 TEST_OP RRF,TRTT,R1,R2,M3
P_B991_P2 TEST_OP RRF,TRTO,R1,R2
P_B991_P3 TEST_OP RRF,TRTO,R1,R2,M3
P_B992_P2 TEST_OP RRF,TROT,R1,R2
P_B992_P3 TEST_OP RRF,TROT,R1,R2,M3
P_B993_P2 TEST_OP RRF,TROO,R1,R2
P_B993_P3 TEST_OP RRF,TROO,R1,R2,M3
P_B994 TEST_OP RRE,LLCR,R1,R2
P_B995 TEST_OP RRE,LLHR,R1,R2
P_B996 TEST_OP RRE,MLR,R1,R2
P_B997 TEST_OP RRE,DLR,R1,R2
P_B998 TEST_OP RRE,ALCR,R1,R2
P_B999 TEST_OP RRE,SLBR,R1,R2
S_B99A TEST_OP RRE,EPAIR,R1
S_B99B TEST_OP RRE,ESAIR,R1
S_B99D TEST_OP RRE,ESEA,R1
P_B99E TEST_OP RRE,PTI,R1,R2
P_B99F TEST_OP RRE,SSAIR,R1
S_B9A1 TEST_OP RRE,TPEI,R1,R2 Z15?
S_B9A2 TEST_OP RRE,PTF,R1
S_B9AA TEST_OP RRF,LPTEA,R1,R3,R2,M4
P_B9AC TEST_OP RRE,IRBM,R1,R2
P_B9AE TEST_OP RRE,RRBM,R1,R2
S_B9AF TEST_OP RRE,PFMF,R1,R2
P_B9B0_P2 TEST_OP RRE,CU14,R1,R2
P_B9B0_P3 TEST_OP RRE,CU14,R1,R2,M3
P_B9B1_P2 TEST_OP RRE,CU24,R1,R2
P_B9B1_P3 TEST_OP RRE,CU24,R1,R2,M3
P_B9B2 TEST_OP RRE,CU41,R1,R2
P_B9B3 TEST_OP RRE,CU42,R1,R2
P_B9BD_P2 TEST_OP RRF,TRTRE,R1,R2
P_B9BD_P3 TEST_OP RRF,TRTRE,R1,R2,M3
P_B9BE TEST_OP RRE,SRSTU,R1,R2
P_B9BF_P2 TEST_OP RRF,TRTE,R1,R2
P_B9BF_P3 TEST_OP RRF,TRTE,R1,R2,M3
P_B9C0 TEST_OP RRF,SELFHR,R1,R2,R3,M4 Z15
P_B9C01 TEST_OP RRF,SELFHRO,R1,R2,R3 Z15
P_B9C02 TEST_OP RRF,SELFHRH,R1,R2,R3 Z15
P_B9C02 TEST_OP RRF,SELFHRP,R1,R2,R3 Z15

P_B9C04 TEST_OP RRF,SELFHRL,R1,R2,R3 Z15
P_B9C04 TEST_OP RRF,SELFHRM,R1,R2,R3 Z15
P_B9C07 TEST_OP RRF,SELFHRNE,R1,R2,R3 Z15
P_B9C07 TEST_OP RRF,SELFHRNZ,R1,R2,R3 Z15
P_B9C08 TEST_OP RRF,SELFHRE,R1,R2,R3 Z15
P_B9C08 TEST_OP RRF,SELFHRZ,R1,R2,R3 Z15
P_B9C0B TEST_OP RRF,SELFHRNL,R1,R2,R3 Z15
P_B9C0B TEST_OP RRF,SELFHRNM,R1,R2,R3 Z15
P_B9C0D TEST_OP RRF,SELFHRNH,R1,R2,R3 Z15
P_B9C0D TEST_OP RRF,SELFHRNP,R1,R2,R3 Z15
P_B9C0E TEST_OP RRF,SELFHRNO,R1,R2,R3 Z15
P_B9C8 TEST_OP RRR,AHHHR,R1,R2,R3
P_B9C9 TEST_OP RRR,SHHHR,R1,R2,R3
P_B9CA TEST_OP RRR,ALHHHR,R1,R2,R3
P_B9CB TEST_OP RRR,SLHHHR,R1,R2,R3
P_B9CD TEST_OP RRE,CHHR,R1,R2
P_B9CF TEST_OP RRE,CLHHR,R1,R2
P_B9D8 TEST_OP RRR,AHHLR,R1,R2,R3
P_B9D9 TEST_OP RRR,SHHLR,R1,R2,R3
P_B9DA TEST_OP RRR,ALHHHLR,R1,R2,R3
P_B9DB TEST_OP RRR,SLHHHLR,R1,R2,R3
P_B9DD TEST_OP RRE,CHLR,R1,R2
P_B9DF TEST_OP RRE,CLHLR,R1,R2
P_B9E0 TEST_OP RRF,LOCFHR,R1,R2,M3
P_B9E01 TEST_OP RRF,LOCFHRO,R1,R2 Z15
P_B9E02 TEST_OP RRF,LOCFHRH,R1,R2 Z15
P_B9E02 TEST_OP RRF,LOCFHRP,R1,R2 Z15
P_B9E04 TEST_OP RRF,LOCFHRL,R1,R2 Z15
P_B9E04 TEST_OP RRF,LOCFHRM,R1,R2 Z15
P_B9E07 TEST_OP RRF,LOCFHRNE,R1,R2 Z15
P_B9E07 TEST_OP RRF,LOCFHRNZ,R1,R2 Z15
P_B9E08 TEST_OP RRF,LOCFHRE,R1,R2 Z15
P_B9E08 TEST_OP RRF,LOCFHRZ,R1,R2 Z15
P_B9E0B TEST_OP RRF,LOCFHRNL,R1,R2 Z15
P_B9E0B TEST_OP RRF,LOCFHRNM,R1,R2 Z15
P_B9E0D TEST_OP RRF,LOCFHRNH,R1,R2 Z15
P_B9E0D TEST_OP RRF,LOCFHRNP,R1,R2 Z15
P_B9E0E TEST_OP RRF,LOCFHRNO,R1,R2 Z15
P_B9E1_P2 TEST_OP RRF,POPCNT,R1,R2
P_B9E1_P3 TEST_OP RRF,POPCNT,R1,R2,M3
P_B9E2 TEST_OP RRF,LOCGR,R1,R2,M3

P_B9E21 TEST_OP RRF,LOCGRO,R1,R2 Z15
P_B9E22 TEST_OP RRF,LOCGRH,R1,R2 Z15
P_B9E22 TEST_OP RRF,LOCGRP,R1,R2 Z15
P_B9E24 TEST_OP RRF,LOCGRL,R1,R2 Z15
P_B9E24 TEST_OP RRF,LOCGRM,R1,R2 Z15
P_B9E27 TEST_OP RRF,LOCGRNE,R1,R2 Z15
P_B9E27 TEST_OP RRF,LOCGRNZ,R1,R2 Z15
P_B9E28 TEST_OP RRF,LOCGRE,R1,R2 Z15
P_B9E28 TEST_OP RRF,LOCGRZ,R1,R2 Z15
P_B9E2B TEST_OP RRF,LOCGRNL,R1,R2 Z15
P_B9E2B TEST_OP RRF,LOCGRNM,R1,R2 Z15
P_B9E2D TEST_OP RRF,LOCGRNH,R1,R2 Z15
P_B9E2D TEST_OP RRF,LOCGRNP,R1,R2 Z15
P_B9E2E TEST_OP RRF,LOCGRNO,R1,R2 Z15
P_B9E3 TEST_OP RRF,SELGR,R1,R2,R3,M4 Z15
P_B9E31 TEST_OP RRF,SELGRO,R1,R2,R3 Z15
P_B9E32 TEST_OP RRF,SELGRH,R1,R2,R3 Z15
P_B9E32 TEST_OP RRF,SELGRP,R1,R2,R3 Z15
P_B9E34 TEST_OP RRF,SELGRL,R1,R2,R3 Z15
P_B9E34 TEST_OP RRF,SELGRM,R1,R2,R3 Z15
P_B9E37 TEST_OP RRF,SELGRNE,R1,R2,R3 Z15
P_B9E37 TEST_OP RRF,SELGRNZ,R1,R2,R3 Z15
P_B9E38 TEST_OP RRF,SELGRE,R1,R2,R3 Z15
P_B9E38 TEST_OP RRF,SELGRZ,R1,R2,R3 Z15
P_B9E3B TEST_OP RRF,SELGRNL,R1,R2,R3 Z15
P_B9E3B TEST_OP RRF,SELGRNM,R1,R2,R3 Z15
P_B9E3D TEST_OP RRF,SELGRNH,R1,R2,R3 Z15
P_B9E3D TEST_OP RRF,SELGRNP,R1,R2,R3 Z15
P_B9E3E TEST_OP RRF,SELGRNO,R1,R2,R3 Z15
P_B9E4 TEST_OP RRR,NGRK,R1,R2,R3
P_B9E5 TEST_OP RRR,NCGRK,R1,R2,R3 Z15
P_B9E6 TEST_OP RRR,OGRK,R1,R2,R3
P_B9E7 TEST_OP RRR,XGRK,R1,R2,R3
P_B9E8 TEST_OP RRR,AGRK,R1,R2,R3
P_B9E9 TEST_OP RRR,SGRK,R1,R2,R3
P_B9EA TEST_OP RRR,ALGRK,R1,R2,R3
P_B9EB TEST_OP RRR,SLGRK,R1,R2,R3
P_B9EC TEST_OP RRF,MGRK,R1,R2,R3 Z15?
P_B9ED TEST_OP RRF,MSGRKC,R1,R2,R3 Z15?
P_B9F0 TEST_OP RRF,SELR,R1,R2,R3,M4 Z15
P_B9F01 TEST_OP RRF,SELRO,R1,R2,R3 Z15

P_B9F02 TEST_OP RRF,SELRH,R1,R2,R3 Z15
P_B9F02 TEST_OP RRF,SELRP,R1,R2,R3 Z15
P_B9F04 TEST_OP RRF,SELRL,R1,R2,R3 Z15
P_B9F04 TEST_OP RRF,SELRM,R1,R2,R3 Z15
P_B9F07 TEST_OP RRF,SELRNE,R1,R2,R3 Z15
P_B9F07 TEST_OP RRF,SELRNZ,R1,R2,R3 Z15
P_B9F08 TEST_OP RRF,SELRE,R1,R2,R3 Z15
P_B9F08 TEST_OP RRF,SELRZ,R1,R2,R3 Z15
P_B9F0B TEST_OP RRF,SELRNL,R1,R2,R3 Z15
P_B9F0B TEST_OP RRF,SELRNM,R1,R2,R3 Z15
P_B9F0D TEST_OP RRF,SELRNH,R1,R2,R3 Z15
P_B9F0D TEST_OP RRF,SELRNP,R1,R2,R3 Z15
P_B9F0E TEST_OP RRF,SELRNO,R1,R2,R3 Z15
P_B9F2 TEST_OP RRF,LOCR,R1,R2,M3
P_B9F21 TEST_OP RRF,LOCRO,R1,R2 Z15
P_B9F22 TEST_OP RRF,LOCRH,R1,R2 Z15
P_B9F22 TEST_OP RRF,LOCRP,R1,R2 Z15
P_B9F24 TEST_OP RRF,LOCRL,R1,R2 Z15
P_B9F24 TEST_OP RRF,LOCRM,R1,R2 Z15
P_B9F27 TEST_OP RRF,LOCRNE,R1,R2 Z15
P_B9F27 TEST_OP RRF,LOCRNZ,R1,R2 Z15
P_B9F28 TEST_OP RRF,LOCRE,R1,R2 Z15
P_B9F28 TEST_OP RRF,LOCRZ,R1,R2 Z15
P_B9F2B TEST_OP RRF,LOCRNL,R1,R2 Z15
P_B9F2B TEST_OP RRF,LOCRNM,R1,R2 Z15
P_B9F2D TEST_OP RRF,LOCRNH,R1,R2 Z15
P_B9F2D TEST_OP RRF,LOCRNP,R1,R2 Z15
P_B9F2E TEST_OP RRF,LOCRNO,R1,R2 Z15
P_B9F4 TEST_OP RRR,NRK,R1,R2,R3
P_B9F5 TEST_OP RRR,NCRK,R1,R2,R3 Z15
P_B9F6 TEST_OP RRR,ORK,R1,R2,R3
P_B9F7 TEST_OP RRR,XRK,R1,R2,R3
P_B9F8 TEST_OP RRR,ARK,R1,R2,R3
P_B9F9 TEST_OP RRR,SRK,R1,R2,R3
P_B9FA TEST_OP RRR,ALRK,R1,R2,R3
P_B9FB TEST_OP RRR,SLRK,R1,R2,R3
P_B9FD TEST_OP RRF,MSRKC,R1,R2,R3 Z15?
P_BA TEST_OP RS,CS,R1,R3,D2(B2)
P_BB TEST_OP RS,CDS,R1,R3,D2(B2)
P_BD TEST_OP RS,CLM,R1,M3,D2(B2)
P_BE TEST_OP RS,STCM,R1,M3,D2(B2)

P_BF TEST_OP RS,ICM,R1,M3,D2(B2)
P_C00 TEST_OP RIL,LARL,R1,I2
P_C004 TEST_OP RIL,JLNOP,I2
P_C01 TEST_OP RIL,LGFI,R1,I2
P_C014 TEST_OP RIL,BROL,I2
P_C014 TEST_OP RIL,JLO,I2
P_C04 TEST_OP RIL,BRCL,M1,I2
P_C04 TEST_OP RIL,JLC,M1,I2 RPI 2221
P_C024 TEST_OP RIL,BRHL,I2 RPI 2221
P_C024 TEST_OP RIL,BRPL,I2 RPI 2221
P_C024 TEST_OP RIL,JLH,I2 RPI 2221
P_C024 TEST_OP RIL,JLP,I2 RPI 2221
P_C044 TEST_OP RIL,BRLL,I2
P_C044 TEST_OP RIL,BRML,I2
P_C044 TEST_OP RIL,JLL,I2
P_C044 TEST_OP RIL,JLM,I2
P_C05 TEST_OP RIL,BRASL,R1,I2
P_C05 TEST_OP RIL,JASL,R1,I2
P_C06 TEST_OP RIL,XIHF,R1,I2
P_C07 TEST_OP RIL,XILF,R1,I2
P_C074 TEST_OP RIL,BRNEL,I2
P_C074 TEST_OP RIL,BRNZL,I2
P_C074 TEST_OP RIL,JLNE,I2
P_C074 TEST_OP RIL,JLNZ,I2
P_C08 TEST_OP RIL,IIHF,R1,I2
P_C084 TEST_OP RIL,BREL,I2
P_C084 TEST_OP RIL,BRZL,I2
P_C084 TEST_OP RIL,JLE,I2
P_C084 TEST_OP RIL,JLZ,I2
P_C09 TEST_OP RIL,IILF,R1,I2
P_COA TEST_OP RIL,NIHF,R1,I2
P_COB TEST_OP RIL,NILF,R1,I2
P_COB4 TEST_OP RIL,BRNLL,I2
P_COB4 TEST_OP RIL,BRNML,I2
P_COB4 TEST_OP RIL,JLNL,I2
P_COB4 TEST_OP RIL,JLNM,I2
P_COC TEST_OP RIL,OIHF,R1,I2
P_COD TEST_OP RIL,OILF,R1,I2
P_COD4 TEST_OP RIL,BRNHL,I2
P_COD4 TEST_OP RIL,BRNPL,I2
P_COD4 TEST_OP RIL,JLNH,I2

P_COD4 TEST_OP RIL,JLNP,I2
P_COE TEST_OP RIL,LLIHF,R1,I2
P_COE4 TEST_OP RIL,BRNOL,I2
P_COE4 TEST_OP RIL,JLNO,I2
P_COF TEST_OP RIL,LLILF,R1,I2
P_COF4 TEST_OP RIL,BRUL,I2
P_COF4 TEST_OP RIL,JLU,I2
P_C20 TEST_OP RIL,MSGFI,R1,I2
P_C21 TEST_OP RIL,MSFI,R1,I2
P_C24 TEST_OP RIL,SLGFI,R1,I2
P_C25 TEST_OP RIL,SLFI,R1,I2
P_C28 TEST_OP RIL,AGFI,R1,I2
P_C29 TEST_OP RIL,AFI,R1,I2
P_C2A TEST_OP RIL,ALGFI,R1,I2
P_C2B TEST_OP RIL,ALFI,R1,I2
P_C2C TEST_OP RIL,CGFI,R1,I2
P_C2D TEST_OP RIL,CFI,R1,I2
P_C2E TEST_OP RIL,CLGFI,R1,I2
P_C2F TEST_OP RIL,CLFI,R1,I2
P_C42 TEST_OP RIL,LLHRL,R1,I2
P_C44 TEST_OP RIL,LGHRL,R1,I2
P_C45 TEST_OP RIL,LHRL,R1,I2
P_C46 TEST_OP RIL,LLGHRL,R1,I2
P_C47 TEST_OP RIL,STHRL,R1,I2
P_C48 TEST_OP RIL,LGRL,R1,I2
P_C4B TEST_OP RIL,STGRL,R1,I2
P_C4C TEST_OP RIL,LGFRL,R1,I2
P_C4D TEST_OP RIL,LRL,R1,I2
P_C4E TEST_OP RIL,LLGFRL,R1,I2
P_C4F TEST_OP RIL,STRRL,R1,I2
P_C5 TEST_OP MII,BPRP,M1,RI2,RI3 Z15?
P_C60 TEST_OP RIL,EXRL,R1,I2
P_C62 TEST_OP RIL,PFDRL,M1,I2
P_C64 TEST_OP RIL,CGHRL,R1,I2
P_C65 TEST_OP RIL,CHRL,R1,I2
P_C66 TEST_OP RIL,CLGHRL,R1,I2
P_C67 TEST_OP RIL,CLHRL,R1,I2
P_C68 TEST_OP RIL,CGRL,R1,I2
P_C6A TEST_OP RIL,CLGRL,R1,I2
P_C6C TEST_OP RIL,CGFRL,R1,I2
P_C6D TEST_OP RIL,CRL,R1,I2

P_C6E TEST_OP RIL,CLGFRL,R1,I2
P_C6F TEST_OP RIL,CLRL,R1,I2
P_C7 TEST_OP SMI,BPP,M1,RI2,D3(B3) Z15?
S_C80 TEST_OP SSF,MVCOS,D1(B1),D2(B2),R3
P_C81 TEST_OP SSF,ECTG,D1(B1),D2(B2),R3
P_C82 TEST_OP SSF,CSST,D1(B1),D2(B2),R3
P_C84 TEST_OP SSF,LPD,R3,D1(B1),D2(B2)
P_C85 TEST_OP SSF,LPDG,R3,D1(B1),D2(B2)
P_CC6 TEST_OP RIL,BRCTH,R1,I2
P_CC6 TEST_OP RIL,JCTH,R1,I2 RPI 2221
P_CC8 TEST_OP RIL,AIH,R1,I2
P_CCA TEST_OP RIL,ALSIH,R1,I2
P_CCB TEST_OP RIL,ALSIHN,R1,I2
P_CCD TEST_OP RIL,CIH,R1,I2
P_CCF TEST_OP RIL,CLIH,R1,I2
P_D0 TEST_OP SS,TRTR,D1(L1,B1),D2(B2)
P_D1 TEST_OP SS,MVN,D1(L1,B1),D2(B2)
P_D2 TEST_OP SS,MVC,D1(L1,B1),D2(B2)
P_D3 TEST_OP SS,MVZ,D1(L1,B1),D2(B2)
P_D4 TEST_OP SS,NC,D1(L1,B1),D2(B2)
P_D5 TEST_OP SS,CLC,D1(L1,B1),D2(B2)
P_D6 TEST_OP SS,OC,D1(L1,B1),D2(B2)
P_D7 TEST_OP SS,XC,D1(L1,B1),D2(B2)
S_D9 TEST_OP SSD,MVCK,D1(R1,B1),D2(B2),R3
S_DA TEST_OP SSD,MVCP,D1(R1,B1),D2(B2),R3
S_DB TEST_OP SSD,MVCS,D1(R1,B1),D2(B2),R3
P_DC TEST_OP SS,TR,D1(L1,B1),D2(B2)
P_DD TEST_OP SS,TRT,D1(L1,B1),D2(B2)
P_DE TEST_OP SS,ED,D1(L1,B1),D2(B2)
P_DF TEST_OP SS,EDMK,D1(L1,B1),D2(B2)
P_E1 TEST_OP SSF,PKU,D1(B1),D2(L2,B2)
P_E2 TEST_OP SS,UNPKU,D1(L1,B1),D2(B2)
P_E302 TEST_OP RXY,LTG,R1,D2(X2,B2)
S_E303 TEST_OP RXY,LRAG,R1,D2(X2,B2)
P_E304 TEST_OP RXY,LG,R1,D2(X2,B2)
P_E306 TEST_OP RXY,CVBY,R1,D2(X2,B2)
P_E308 TEST_OP RXY,AG,R1,D2(X2,B2)
P_E309 TEST_OP RXY,SG,R1,D2(X2,B2)
P_E30A TEST_OP RXY,ALG,R1,D2(X2,B2)
P_E30B TEST_OP RXY,SLG,R1,D2(X2,B2)
P_E30C TEST_OP RXY,MSG,R1,D2(X2,B2)

P_E30D TEST_OP RXY,DSG,R1,D2(X2,B2)
P_E30E TEST_OP RXY,CVBG,R1,D2(X2,B2)
P_E30F TEST_OP RXY,LRVG,R1,D2(X2,B2)
P_E312 TEST_OP RXY,LT,R1,D2(X2,B2)
S_E313 TEST_OP RXY,LRAY,R1,D2(X2,B2)
P_E314 TEST_OP RXY,LGF,R1,D2(X2,B2)
P_E315 TEST_OP RXY,LGH,R1,D2(X2,B2)
P_E316 TEST_OP RXY,LLGF,R1,D2(X2,B2)
P_E317 TEST_OP RXY,LLGT,R1,D2(X2,B2)
P_E318 TEST_OP RXY,AGF,R1,D2(X2,B2)
P_E319 TEST_OP RXY,SGF,R1,D2(X2,B2)
P_E31A TEST_OP RXY,ALGF,R1,D2(X2,B2)
P_E31B TEST_OP RXY,SLGF,R1,D2(X2,B2)
P_E31C TEST_OP RXY,MSGF,R1,D2(X2,B2)
P_E31D TEST_OP RXY,DSGF,R1,D2(X2,B2)
P_E31E TEST_OP RXY,LRV,R1,D2(X2,B2)
P_E31F TEST_OP RXY,LRVH,R1,D2(X2,B2)
P_E320 TEST_OP RXY,CG,R1,D2(X2,B2)
P_E321 TEST_OP RXY,CLG,R1,D2(X2,B2)
P_E324 TEST_OP RXY,STG,R1,D2(X2,B2)
P_E325 TEST_OP RXY,NTSTG,R1,D2(X2,B2) Z15?
P_E326 TEST_OP RXY,CVDY,R1,D2(X2,B2)
P_E32A TEST_OP RXY,LZRG,R1,D2(X2,B2) Z15?
P_E32E TEST_OP RXY,CVDG,R1,D2(X2,B2)
P_E32F TEST_OP RXY,STRVG,R1,D2(X2,B2)
P_E330 TEST_OP RXY,CGF,R1,D2(X2,B2)
P_E331 TEST_OP RXY,CLGF,R1,D2(X2,B2)
P_E332 TEST_OP RXY,LTGF,R1,D2(X2,B2)
P_E334 TEST_OP RXY,CGH,R1,D2(X2,B2)
P_E336 TEST_OP RXY,PFD,M1,D2(X2,B2)
P_E338 TEST_OP RXY,AGH,R1,D2(X2,B2) Z15?
P_E339 TEST_OP RXY,SGH,R1,D2(X2,B2) Z15?
P_E33A TEST_OP RXY,LLZRGF,R1,D2(X2,B2) Z15?
P_E33B TEST_OP RXY,LZRF,R1,D2(X2,B2) Z15?
P_E33C TEST_OP RXY,MGH,R1,D2(X2,B2) Z15?
P_E33E TEST_OP RXY,STRV,R1,D2(X2,B2)
P_E33F TEST_OP RXY,STRVH,R1,D2(X2,B2)
P_E346 TEST_OP RXY,BCTG,R1,D2(X2,B2)
P_E347 TEST_OP RXY,BIC,M1,D2(X2,B2)
P_E3471 TEST_OP RXY,BIO,D2(X2,B2)
P_E3472 TEST_OP RXY,BIH,D2(X2,B2)

P_E3472 TEST_OP RXY,BIP,D2(X2,B2)
P_E3474 TEST_OP RXY,BIL,D2(X2,B2)
P_E3474 TEST_OP RXY,BIM,D2(X2,B2)
P_E3477 TEST_OP RXY,BINE,D2(X2,B2)
P_E3477 TEST_OP RXY,BINZ,D2(X2,B2)
P_E3478 TEST_OP RXY,BIE,D2(X2,B2)
P_E3478 TEST_OP RXY,BIZ,D2(X2,B2)
P_E347BI TEST_OP RXY,BINL,D2(X2,B2)
P_E347BI TEST_OP RXY,BINM,D2(X2,B2)
P_E347D TEST_OP RXY,BINH,D2(X2,B2)
P_E347D TEST_OP RXY,BINP,D2(X2,B2)
P_E347E TEST_OP RXY,BINO,D2(X2,B2)
P_E347F TEST_OP RXY,BI,D2(X2,B2)
P_E348 TEST_OP RXY,LLGFSG,R1,D2(X2,B2) Z15?
P_E349 TEST_OP RXY,STGSC,R1,D2(X2,B2) Z15?
P_E34C TEST_OP RXY,LGG,R1,D2(X2,B2) Z15?
P_E34D TEST_OP RXY,LGSC,R1,D2(X2,B2) Z15?
P_E350 TEST_OP RXY,STY,R1,D2(X2,B2)
P_E351 TEST_OP RXY,MSY,R1,D2(X2,B2)
P_E353 TEST_OP RXY,MSC,R1,D2(X2,B2) Z15?
P_E354 TEST_OP RXY,NY,R1,D2(X2,B2)
P_E355 TEST_OP RXY,CLY,R1,D2(X2,B2)
P_E356 TEST_OP RXY,OY,R1,D2(X2,B2)
P_E357 TEST_OP RXY,XY,R1,D2(X2,B2)
P_E358 TEST_OP RXY,LY,R1,D2(X2,B2)
P_E359 TEST_OP RXY,CY,R1,D2(X2,B2)
P_E35A TEST_OP RXY,AY,R1,D2(X2,B2)
P_E35B TEST_OP RXY,SY,R1,D2(X2,B2)
P_E35C TEST_OP RXY,MFY,R1,D2(X2,B2)
P_E35E TEST_OP RXY,ALY,R1,D2(X2,B2)
P_E35F TEST_OP RXY,SLY,R1,D2(X2,B2)
P_E370 TEST_OP RXY,STHY,R1,D2(X2,B2)
P_E371 TEST_OP RXY,LAY,R1,D2(X2,B2)
P_E372 TEST_OP RXY,STCY,R1,D2(X2,B2)
P_E373 TEST_OP RXY,ICY,R1,D2(X2,B2)
P_E375 TEST_OP RXY,LAEY,R1,D2(X2,B2)
P_E376 TEST_OP RXY,LB,R1,D2(X2,B2)
P_E377 TEST_OP RXY,LGB,R1,D2(X2,B2)
P_E378 TEST_OP RXY,LHY,R1,D2(X2,B2)
P_E379 TEST_OP RXY,CHY,R1,D2(X2,B2)
P_E37A TEST_OP RXY,AHY,R1,D2(X2,B2)

P_E37B TEST_OP RXY,SHY,R1,D2(X2,B2)
P_E37C TEST_OP RXY,MHY,R1,D2(X2,B2)
P_E380 TEST_OP RXY,NG,R1,D2(X2,B2)
P_E381 TEST_OP RXY,OG,R1,D2(X2,B2)
P_E382 TEST_OP RXY,XG,R1,D2(X2,B2)
P_E383 TEST_OP RXY,MSGC,R1,D2(X2,B2) Z15?
P_E384 TEST_OP RXY,MG,R1,D2(X2,B2) Z15?
P_E385 TEST_OP RXY,LGAT,R1,D2(X2,B2) Z15?
P_E386 TEST_OP RXY,MLG,R1,D2(X2,B2)
P_E387 TEST_OP RXY,DLG,R1,D2(X2,B2)
P_E388 TEST_OP RXY,ALCG,R1,D2(X2,B2)
P_E389 TEST_OP RXY,SLBG,R1,D2(X2,B2)
P_E38E TEST_OP RXY,STPQ,R1,D2(X2,B2)
P_E38F TEST_OP RXY,LPQ,R1,D2(X2,B2)
P_E390 TEST_OP RXY,LLGC,R1,D2(X2,B2)
P_E391 TEST_OP RXY,LLGH,R1,D2(X2,B2)
P_E394 TEST_OP RXY,LLC,R1,D2(X2,B2)
P_E395 TEST_OP RXY,LLH,R1,D2(X2,B2)
P_E396 TEST_OP RXY,ML,R1,D2(X2,B2)
P_E397 TEST_OP RXY,DL,R1,D2(X2,B2)
P_E398 TEST_OP RXY,ALC,R1,D2(X2,B2)
P_E399 TEST_OP RXY,SLB,R1,D2(X2,B2)
P_E39C TEST_OP RXY,LLGTAT,R1,D2(X2,B2) Z15?
P_E39D TEST_OP RXY,LLGFAT,R1,D2(X2,B2) Z15?
P_E39F TEST_OP RXY,LAT,R1,D2(X2,B2) Z15?
P_E3C0 TEST_OP RXY,LBH,R1,D2(X2,B2)
P_E3C2 TEST_OP RXY,LLCH,R1,D2(X2,B2)
P_E3C3 TEST_OP RXY,STCH,R1,D2(X2,B2)
P_E3C4 TEST_OP RXY,LHH,R1,D2(X2,B2)
P_E3C6 TEST_OP RXY,LLHH,R1,D2(X2,B2)
P_E3C7 TEST_OP RXY,STHH,R1,D2(X2,B2)
P_E3C8 TEST_OP RXY,LFHAT,R1,D2(X2,B2) Z15?
P_E3CA TEST_OP RXY,LFH,R1,D2(X2,B2)
P_E3CB TEST_OP RXY,STFH,R1,D2(X2,B2)
P_E3CD TEST_OP RXY,CHF,R1,D2(X2,B2)
P_E3CF TEST_OP RXY,CLHF,R1,D2(X2,B2)
P_E500 TEST_OP SSE,LASP,D1(B1),D2(B2)
P_E501 TEST_OP SSE,TPROT,D1(B1),D2(B2)
S_E502 TEST_OP SSE,STRAG,D1(B1),D2(B2)
P_E50A TEST_OP SSE,MVCRL,D1(B1),D2(B2) Z15
S_E50E TEST_OP SSE,MVCSK,D1(B1),D2(B2)

S_E50F TEST_OP SSE,MVCDK,D1(B1),D2(B2)
P_E544 TEST_OP SIL,MVHHI,D1(B1),I2
P_E548 TEST_OP SIL,MVGHI,D1(B1),I2
P_E54C TEST_OP SIL,MVHI,D1(B1),I2
P_E554 TEST_OP SIL,CHHSI,D1(B1),I2
P_E555 TEST_OP SIL,CLHHSI,D1(B1),I2
P_E558 TEST_OP SIL,CGHSI,D1(B1),I2
P_E559 TEST_OP SIL,CLGHSI,D1(B1),I2
P_E55C TEST_OP SIL,CHSI,D1(B1),I2
P_E55D TEST_OP SIL,CLFHSI,D1(B1),I2
P_E560 TEST_OP SIL,TBEGIN,D1(B1),I2 Z15?
P_E561 TEST_OP SIL,TBEGINC,D1(B1),I2 Z15?
P_E601 TEST_OP VRX,VLEBRH,V1,D2(X2,B2),M3 Z15?
P_E602 TEST_OP VRX,VLEBRG,V1,D2(X2,B2),M3 Z15?
P_E603 TEST_OP VRX,VLEBRF,V1,D2(X2,B2),M3 Z15?
P_E604 TEST_OP VRX,VLLEBRZ,V1,D2(X2,B2),M3 Z15
P_E6041 TEST_OP VRX,VLLEBRZH,V1,D2(X2,B2) Z15
P_E6042 TEST_OP VRX,VLLEBRZF,V1,D2(X2,B2) Z15
P_E6043 TEST_OP VRX,VLLEBRZG,V1,D2(X2,B2) Z15
P_E6046 TEST_OP VRX,VLLEBRZE,V1,D2(X2,B2) Z15
P_E6043 TEST_OP VRX,LDRV,V1,D2(X2,B2) Z15
P_E6046 TEST_OP VRX,LERV,V1,D2(X2,B2) Z15
P_E605 TEST_OP VRX,VLBRREP,V1,D2(X2,B2),M3 Z15
P_E6051 TEST_OP VRX,VLBRREPH,V1,D2(X2,B2) Z15
P_E6052 TEST_OP VRX,VLBRREPF,V1,D2(X2,B2) Z15
P_E6053 TEST_OP VRX,VLBRREPG,V1,D2(X2,B2) Z15
P_E606 TEST_OP VRX,VLBR,V1,D2(X2,B2),M3 Z15
P_E6061 TEST_OP VRX,VLBRH,V1,D2(X2,B2) Z15
P_E6062 TEST_OP VRX,VLBRF,V1,D2(X2,B2) Z15
P_E6063 TEST_OP VRX,VLBRG,V1,D2(X2,B2) Z15
P_E6064 TEST_OP VRX,VLBRQ,V1,D2(X2,B2) Z15
P_E607 TEST_OP VRX,VLER,V1,D2(X2,B2),M3 Z15
P_E6071 TEST_OP VRX,VLERH,V1,D2(X2,B2) Z15
P_E6072 TEST_OP VRX,VLERF,V1,D2(X2,B2) Z15
P_E6073 TEST_OP VRX,VLERG,V1,D2(X2,B2) Z15
P_E609 TEST_OP VRX,VSTEBRH,V1,D2(X2,B2),M3 Z15
P_E60A TEST_OP VRX,VSTEBRG,V1,D2(X2,B2),M3 Z15
P_E60A0 TEST_OP VRX,STDdrv,V1,D2(X2,B2) Z15
P_E60B TEST_OP VRX,VSTEBrF,V1,D2(X2,B2),M3 Z15
P_E60B0 TEST_OP VRX,STERV,V1,D2(X2,B2) Z15
P_E60E TEST_OP VRX,VSTBR,V1,D2(X2,B2),M3 Z15

P_E60E1 TEST_OP VRX,VSTBRH,V1,D2(X2,B2) Z15
P_E60E2 TEST_OP VRX,VSTBRF,V1,D2(X2,B2) Z15
P_E60E3 TEST_OP VRX,VSTBRG,V1,D2(X2,B2) Z15
P_E60E4 TEST_OP VRX,VSTBRQ,V1,D2(X2,B2) Z15
P_E60F TEST_OP VRX,VSTER,V1,D2(X2,B2),M3 Z15
P_E60F1 TEST_OP VRX,VSTERH,V1,D2(X2,B2) Z15
P_E60F2 TEST_OP VRX,VSTERF,V1,D2(X2,B2) Z15
P_E60F3 TEST_OP VRX,VSTERG,V1,D2(X2,B2) Z15
P_E634 TEST_OP VSI,VPKZ,V1,D2(B2),I3 Z15?
P_E635 TEST_OP VSI,VLRL,V1,D2(B2),I3 Z15?
P_E637 TEST_OP VRS,VLRLR,V1,R3,D2(B2) Z15?
P_E63C TEST_OP VSI,VUPKZ,V1,D2(B2),I3 Z15?
P_E63D TEST_OP VSI,VSTRL,V1,D2(B2),I3 Z15?
P_E63F TEST_OP VRS,VSTRLR,V1,R3,D2(B2) Z15?
P_E649 TEST_OP VRI,VLIP,V1,I2,I3 Z15?
P_E650_P3 TEST_OP VRR,VCVB,R1,V2,M3 Z15?
P_E650_P4 TEST_OP VRR,VCVB,R1,V2,M3,M4 Z15?
P_E652_P3 TEST_OP VRR,VCVBG,R1,V2,M3 Z15?
P_E652_P4 TEST_OP VRR,VCVBG,R1,V2,M3,M4 Z15?
P_E658 TEST_OP VRI,VCVD,V1,R2,I3,M4 Z15?
P_E659 TEST_OP VRI,VSRP,V1,V2,I3,I4,M5 Z15?
P_E65A TEST_OP VRI,VCVDG,V1,R2,I3,M4 Z15?
P_E65B TEST_OP VRI,VPSOP,V1,V2,I3,I4,M5 Z15?
P_E65F TEST_OP VRR,VTP,V1 Z15?
P_E671 TEST_OP VRI,VAP,V1,V2,V3,I4,M5 Z15?
P_E673 TEST_OP VRI,VSP,V1,V2,I3,I4,M5 Z15?
P_E677 TEST_OP VRR,VCP,V1,V2,M3 Z15?
P_E678 TEST_OP VRI,VMP,V1,V2,I3,I4,M5 Z15?
P_E679 TEST_OP VRI,VMSP,V1,V2,I3,I4,M5 Z15?
P_E67A TEST_OP VRI,VDP,V1,V2,I3,I4,M5 Z15?
P_E67B TEST_OP VRI,VRP,V1,V2,I3,I4,M5 Z15?
P_E67E TEST_OP VRI,VSDP,V1,V2,I3,I4,M5 Z15?
P_E700 TEST_OP VRX,VLEB,V1,D2(X2,B2),M3 Z15?
P_E701 TEST_OP VRX,VLEH,V1,D2(X2,B2),M3 Z15?
P_E702 TEST_OP VRX,VLEG,V1,D2(X2,B2),M3 Z15?
P_E703 TEST_OP VRX,VLEF,V1,D2(X2,B2),M3 Z15?
P_E704 TEST_OP VRX,VLLEZ,V1,D2(X2,B2),M3 Z15?
P_E7040 TEST_OP VRX,VLLEZB,V1,D2(X2,B2) Z15?
P_E7041 TEST_OP VRX,VLLEZH,V1,D2(X2,B2) Z15?
P_E7042 TEST_OP VRX,VLLEZF,V1,D2(X2,B2) Z15?
P_E7043 TEST_OP VRX,VLLEZG,V1,D2(X2,B2) Z15?

P_E7046 TEST_OP VRX,VLLEZLF,V1,D2(X2,B2) Z15?
P_E705 TEST_OP VRX,VLREP,V1,D2(X2,B2),M3 Z15?
P_E7050 TEST_OP VRX,VLREPB,V1,D2(X2,B2) Z15?
P_E7051 TEST_OP VRX,VLREPH,V1,D2(X2,B2) Z15?
P_E7052 TEST_OP VRX,VLREPF,V1,D2(X2,B2) Z15?
P_E7053 TEST_OP VRX,VLREPG,V1,D2(X2,B2) Z15?
P_E706_P2 TEST_OP VRX,VL,V1,D2(X2,B2),M3 Z15?
P_E706_P3 TEST_OP VRX,VL,V1,D2(X2,B2) Z15?
P_E707 TEST_OP VRX,VLBB,V1,D2(X2,B2),M3 Z15?
P_E708 TEST_OP VRX,VSTEB,V1,D2(X2,B2),M3 Z15?
P_E709 TEST_OP VRX,VSTEH,V1,D2(X2,B2),M3 Z15?
P_E70A TEST_OP VRX,VSTEG,V1,D2(X2,B2),M3 Z15?
P_E70B TEST_OP VRX,VSTEF,V1,D2(X2,B2),M3 Z15?
P_E70E_P2 TEST_OP VRX,VST,V1,D2(X2,B2) Z15?
P_E70E_P3 TEST_OP VRX,VST,V1,D2(X2,B2),M3 Z15?
P_E712 TEST_OP VRV,VGEG,V1,D2(V2,B2),M3 Z15?
P_E713 TEST_OP VRV,VGEF,V1,D2(V2,B2),M3 Z15?
P_E71A TEST_OP VRV,VSCEG,V1,D2(V2,B2),M3 Z15?
P_E71B TEST_OP VRV,VSCEF,V1,D2(V2,B2),M3 Z15?
P_E721 TEST_OP VRS,VLGV,R1,V3,D2(B2),M4 Z15? RPI 2216
P_E7210 TEST_OP VRS,VLGVB,R1,V3,D2(B2) Z15? RPI 2216
P_E7211 TEST_OP VRS,VLGVH,R1,V3,D2(B2) Z15? RPI 2216
P_E7212 TEST_OP VRS,VLGVF,R1,V3,D2(B2) Z15? RPI 2216
P_E7213 TEST_OP VRS,VLVG,G,R1,V3,D2(B2) Z15? RPI 2216
P_E722 TEST_OP VRS,VLVG,V1,R3,D2(B2),M4 Z15?
P_E7220 TEST_OP VRS,VLVGB,V1,R3,D2(B2) Z15?
P_E7221 TEST_OP VRS,VLVGH,V1,R3,D2(B2) Z15?
P_E7222 TEST_OP VRS,VLVGF,V1,R3,D2(B2) Z15?
P_E7223 TEST_OP VRS,VLVGG,V1,R3,D2(B2) Z15?
P_E727 TEST_OP RXE,LCBB,R1,D2(X2,B2),M3 Z15?
P_E730 TEST_OP VRS,VESL,V1,V3,D2(B2),M4 Z15? RPI 2216
P_E7300 TEST_OP VRS,VESLB,V1,V3,D2(B2) Z15? RPI 2216
P_E7301 TEST_OP VRS,VESLH,V1,V3,D2(B2) Z15? RPI 2216
P_E7302 TEST_OP VRS,VESLF,V1,V3,D2(B2) Z15? RPI 2216
P_E7303 TEST_OP VRS,VESLG,V1,V3,D2(B2) Z15? RPI 2216
P_E733 TEST_OP VRS,VERLL,V1,V3,D2(B2),M4 Z15? RPI 2216
P_E7330 TEST_OP VRS,VERLLB,V1,V3,D2(B2) Z15? RPI 2216
P_E7331 TEST_OP VRS,VERLLH,V1,V3,D2(B2) Z15? RPI 2216
P_E7332 TEST_OP VRS,VERLLF,V1,V3,D2(B2) Z15? RPI 2216
P_E7333 TEST_OP VRS,VERLLG,V1,V3,D2(B2) Z15? RPI 2216
P_E736_P3 TEST_OP VRS,VLM,V1,V3,D2(B2) Z15? RPI 2216

P_E736_P4 TEST_OP VRS,VLM,V1,V3,D2(B2),M4 Z15?
P_E737 TEST_OP VRS,VLL,V1,R3,D2(B2) Z15?
P_E738 TEST_OP VRS,VESRL,V1,V3,D2(B2),M4 RPI 2216
P_E7380 TEST_OP VRS,VESRLB,V1,V3,D2(B2) RPI 2216
P_E7381 TEST_OP VRS,VESRLH,V1,V3,D2(B2) RPI 2216
P_E7382 TEST_OP VRS,VESRLF,V1,V3,D2(B2) RPI 2216
P_E7383 TEST_OP VRS,VESRLG,V1,V3,D2(B2) RPI 2216
P_E73A TEST_OP VRS,VESRA,V1,V3,D2(B2),M4 Z15? RPI 2216
P_E73A0 TEST_OP VRS,VESRAB,V1,V3,D2(B2) Z15? RPI 2216
P_E73A1 TEST_OP VRS,VESRAH,V1,V3,D2(B2) Z15? RPI 2216
P_E73A2 TEST_OP VRS,VESRAF,V1,V3,D2(B2) Z15? RPI 2216
P_E73A3 TEST_OP VRS,VESRAG,V1,V3,D2(B2) Z15? RPI 2216
P_E73E_P3 TEST_OP VRS,VSTM,V1,V3,D2(B2) Z15? RPI 2216
P_E73E_P4 TEST_OP VRS,VSTM,V1,V3,D2(B2),M4 Z15? RPI 2216
P_E73F TEST_OP VRS,VSTL,V1,R3,D2(B2) Z15?
P_E740 TEST_OP VRI,VLEIB,V1,I2,M3 Z15?
P_E741 TEST_OP VRI,VLEIH,V1,I2,M3 Z15?
P_E742 TEST_OP VRI,VLEIG,V1,I2,M3 Z15?
P_E743 TEST_OP VRI,VLEIF,V1,I2,M3 Z15?
P_E744 TEST_OP VRI,VGBM,V1,I2 Z15?
P_E7440 TEST_OP VRI,VZERO,V1 Z15?
P_E7441 TEST_OP VRI,VONE,V1 Z15?
P_E745 TEST_OP VRI,VREPI,V1,I2,M3 Z15?
P_E7450 TEST_OP VRI,VREPIB,V1,I2 Z15?
P_E7451 TEST_OP VRI,VREPIH,V1,I2 Z15?
P_E7452 TEST_OP VRI,VREPIF,V1,I2 Z15?
P_E7453 TEST_OP VRI,VREPIG,V1,I2 Z15?
P_E746 TEST_OP VRI,VGM,V1,I2,I3,M4 Z15?
P_E7460 TEST_OP VRI,VGMB,V1,I2,I3 Z15?
P_E7461 TEST_OP VRI,VGMH,V1,I2,I3 Z15?
P_E7462 TEST_OP VRI,VGMF,V1,I2,I3 Z15?
P_E7463 TEST_OP VRI,VGMG,V1,I2,I3 Z15?
P_E74A TEST_OP VRI,VFTCI,V1,V2,I3,M4,M5 Z15?
P_E74A20 TEST_OP VRI,VFTCISB,V1,V2,I3 Z15?
P_E74A30 TEST_OP VRI,VFTCIDB,V1,V2,I3 Z15?
P_E74A28 TEST_OP VRI,WFTCISB,V1,V2,I3 Z15?
P_E74A38 TEST_OP VRI,WFTCIDB,V1,V2,I3 Z15?
P_E74A48 TEST_OP VRI,WFTCIXB,V1,V2,I3 Z15?
P_E74D TEST_OP VRI,VREP,V1,V3,I2,M4 Z15? RPI 2216
P_E74D0 TEST_OP VRI,VREPB,V1,V3,I2 Z15? RPI 2216
P_E74D1 TEST_OP VRI,VREPH,V1,V3,I2 Z15? RPI 2216

P_E74D2 TEST_OP VRI,VREPF,V1,V3,I2 Z15? RPI 2216
P_E74D3 TEST_OP VRI,VREPG,V1,V3,I2 Z15? RPI 2216
P_E750 TEST_OP VRR,VPOPCT,V1,V2,M3 Z15?
P_E7500 TEST_OP VRR,VPOPCTB,V1,V2 Z15?
P_E7501 TEST_OP VRR,VPOPCTH,V1,V2 Z15?
P_E7502 TEST_OP VRR,VPOPCTF,V1,V2 Z15?
P_E7503 TEST_OP VRR,VPOPCTG,V1,V2 Z15?
P_E752 TEST_OP VRR,VCTZ,V1,V2,M3 Z15?
P_E7520 TEST_OP VRR,VCTZB,V1,V2 Z15?
P_E7521 TEST_OP VRR,VCTZH,V1,V2 Z15?
P_E7522 TEST_OP VRR,VCTZF,V1,V2 Z15?
P_E7523 TEST_OP VRR,VCTZG,V1,V2 Z15?
P_E753 TEST_OP VRR,VCLZ,V1,V2,M3 Z15?
P_E7530 TEST_OP VRR,VCLZB,V1,V2 Z15?
P_E7531 TEST_OP VRR,VCLZH,V1,V2 Z15?
P_E7532 TEST_OP VRR,VCLZF,V1,V2 Z15?
P_E7533 TEST_OP VRR,VCLZG,V1,V2 Z15?
P_E756 TEST_OP VRR,VLR,V1,V2 Z15?
P_E75C_P3 TEST_OP VRR,VISTR,V1,V2,M3 Z15?
P_E75C_P4 TEST_OP VRR,VISTR,V1,V2,M3,M5 Z15?
P_E75C0_P2 TEST_OP VRR,VISTRB,V1,V2 Z15?
P_E75C0_P3 TEST_OP VRR,VISTRB,V1,V2,M5 Z15?
P_E75C1_P2 TEST_OP VRR,VISTRH,V1,V2 Z15?
P_E75C1_P3 TEST_OP VRR,VISTRH,V1,V2,M5 Z15?
P_E75C2_P2 TEST_OP VRR,VISTRF,V1,V2 Z15?
P_E75C2_P3 TEST_OP VRR,VISTRF,V1,V2,M5 Z15?
P_E75C01 TEST_OP VRR,VISTRBS,V1,V2 Z15?
P_E75C11 TEST_OP VRR,VISTRHS,V1,V2 Z15?
P_E75C21 TEST_OP VRR,VISTRFS,V1,V2 Z15?
P_E75F TEST_OP VRR,VSEG,V1,V2,M3 Z15?
P_E75F0 TEST_OP VRR,VSEGB,V1,V2 Z15?
P_E75F1 TEST_OP VRR,VSEGH,V1,V2 Z15?
P_E75F2 TEST_OP VRR,VSEGF,V1,V2 Z15?
P_E760 TEST_OP VRR,VMRL,V1,V2,V3,M4 Z15?
P_E7600 TEST_OP VRR,VMRLB,V1,V2,V3 Z15?
P_E7601 TEST_OP VRR,VMRLH,V1,V2,V3 Z15?
P_E7602 TEST_OP VRR,VMRLF,V1,V2,V3 Z15?
P_E7603 TEST_OP VRR,VMRLG,V1,V2,V3 Z15?
P_E761 TEST_OP VRR,VMRH,V1,V2,V3,M4 Z15?
P_E7610 TEST_OP VRR,VMRHB,V1,V2,V3 Z15?
P_E7611 TEST_OP VRR,VMRHH,V1,V2,V3 Z15?

P_E7612 TEST_OP VRR,VMRHF,V1,V2,V3 Z15?
P_E7613 TEST_OP VRR,VMRHG,V1,V2,V3 Z15?
P_E762 TEST_OP VRR,VLVGP,V1,R2,R3 Z15?
P_E764 TEST_OP VRR,VSUM,V1,V2,V3,M4 Z15?
P_E7640 TEST_OP VRR,VSUMB,V1,V2,V3 Z15?
P_E7641 TEST_OP VRR,VSUMH,V1,V2,V3 Z15?
P_E765 TEST_OP VRR,VSUMG,V1,V2,V3,M4 Z15?
P_E7651 TEST_OP VRR,VSUMGH,V1,V2,V3 Z15?
P_E7652 TEST_OP VRR,VSUMGF,V1,V2,V3 Z15?
P_E766 TEST_OP VRR,VCKSM,V1,V2,V3 Z15?
P_E767 TEST_OP VRR,VSUMQ,V1,V2,V3,M4 Z15?
P_E7672 TEST_OP VRR,VSUMQF,V1,V2,V3 Z15?
P_E7673 TEST_OP VRR,VSUMQG,V1,V2,V3 Z15?
P_E768 TEST_OP VRR,VN,V1,V2,V3 Z15?
P_E769 TEST_OP VRR,VNC,V1,V2,V3 Z15?
P_E76A TEST_OP VRR,VO,V1,V2,V3 Z15?
P_E76B TEST_OP VRR,VNO,V1,V2,V3 Z15?
P_E76B TEST_OP VRR,VNOT,V1,V2 Z15?
P_E76C TEST_OP VRR,VNX,V1,V2,V3 Z15?
P_E76D TEST_OP VRR,VX,V1,V2,V3 Z15?
P_E76E TEST_OP VRR,VNN,V1,V2,V3 Z15?
P_E76F TEST_OP VRR,VOC,V1,V2,V3 Z15?
P_E770 TEST_OP VRR,VESLV,V1,V2,V3,M4 Z15?
P_E7700 TEST_OP VRR,VESLVB,V1,V2,V3 Z15?
P_E7701 TEST_OP VRR,VESLVH,V1,V2,V3 Z15?
P_E7702 TEST_OP VRR,VESLF,V1,V2,V3 Z15?
P_E7703 TEST_OP VRR,VESLVG,V1,V2,V3 Z15?
P_E772 TEST_OP VRI,VERIM,V1,V2,V3,I4,M5 Z15?
P_E7720 TEST_OP VRI,VERIMB,V1,V2,V3,I4 Z15?
P_E7721 TEST_OP VRI,VERIMH,V1,V2,V3,I4 Z15?
P_E7722 TEST_OP VRI,VERIMF,V1,V2,V3,I4 Z15?
P_E7723 TEST_OP VRI,VERIMG,V1,V2,V3,I4 Z15?
P_E773 TEST_OP VRR,VERLLV,V1,V2,V3,M4 Z15?
P_E7730 TEST_OP VRR,VERLLVB,V1,V2,V3 Z15?
P_E7731 TEST_OP VRR,VERLLVH,V1,V2,V3 Z15?
P_E7732 TEST_OP VRR,VERLLVF,V1,V2,V3 Z15?
P_E7733 TEST_OP VRR,VERLLVG,V1,V2,V3 Z15?
P_E774 TEST_OP VRR,VSL,V1,V2,V3 Z15?
P_E775 TEST_OP VRR,VSLB,V1,V2,V3 Z15?
P_E777 TEST_OP VRI,VSLDB,V1,V2,V3,I4 Z15?
P_E778 TEST_OP VRR,VESRLV,V1,V2,V3,M4 Z15?

P_E7780 TEST_OP VRR,VESRLVB,V1,V2,V3 Z15?
P_E7781 TEST_OP VRR,VESRLVH,V1,V2,V3 Z15?
P_E7782 TEST_OP VRR,VESRLVF,V1,V2,V3 Z15?
P_E7783 TEST_OP VRR,VESRLVG,V1,V2,V3 Z15?
P_E77A TEST_OP VRR,VESRAV,V1,V2,V3,M4 Z15?
P_E77A0 TEST_OP VRR,VESRAVB,V1,V2,V3 Z15?
P_E77A1 TEST_OP VRR,VESRAVH,V1,V2,V3 Z15?
P_E77A2 TEST_OP VRR,VESRAVF,V1,V2,V3 Z15?
P_E77A3 TEST_OP VRR,VESRAVG,V1,V2,V3 Z15?
P_E77C TEST_OP VRR,VSRL,V1,V2,V3 Z15?
P_E77D TEST_OP VRR,VSRLB,V1,V2,V3 Z15?
P_E77E TEST_OP VRR,VSRA,V1,V2,V3 Z15?
P_E77F TEST_OP VRR,VSRAB,V1,V2,V3 Z15?
P_E780_P4 TEST_OP VRR,VFEE,V1,V2,V3,M4 Z15?
P_E780_P5 TEST_OP VRR,VFEE,V1,V2,V3,M4,M5 Z15?
P_E7800_P3 TEST_OP VRR,VFEEB,V1,V2,V3 Z15?
P_E7800_P4 TEST_OP VRR,VFEEB,V1,V2,V3,M5
P_E78001 TEST_OP VRR,VFEEBS,V1,V2,V3 Z15?
P_E78002 TEST_OP VRR,VFEEZB,V1,V2,V3 Z15?
P_E78003 TEST_OP VRR,VFEEZBS,V1,V2,V3 Z15?
P_E7801_P3 TEST_OP VRR,VFEEH,V1,V2,V3 Z15?
P_E7801_P4 TEST_OP VRR,VFEEH,V1,V2,V3,M5 Z15?
P_E78011 TEST_OP VRR,VFEEHS,V1,V2,V3 Z15?
P_E78012 TEST_OP VRR,VFEEZH,V1,V2,V3 Z15?
P_E78013 TEST_OP VRR,VFEEZHS,V1,V2,V3 Z15?
P_E7802_P3 TEST_OP VRR,VFEEF,V1,V2,V3 Z15?
P_E7802_P4 TEST_OP VRR,VFEEF,V1,V2,V3,M5 Z15?
P_E78021 TEST_OP VRR,VFEEFS,V1,V2,V3 Z15?
P_E78022 TEST_OP VRR,VFEEZF,V1,V2,V3 Z15?
P_E78023 TEST_OP VRR,VFEEZFS,V1,V2,V3 Z15?
P_E781_P4 TEST_OP VRR,VFENE,V1,V2,V3,M4 Z15?
P_E781_P5 TEST_OP VRR,VFENE,V1,V2,V3,M4,M5 Z15?
P_E7810_P3 TEST_OP VRR,VFENEV,V1,V2,V3 Z15?
P_E7810_P4 TEST_OP VRR,VFENEV,V1,V2,V3,M5 Z15?
P_E7811_P3 TEST_OP VRR,VFENEH,V1,V2,V3 Z15?
P_E7811_P4 TEST_OP VRR,VFENEH,V1,V2,V3,M5 Z15?
P_E7812_P3 TEST_OP VRR,VFENEF,V1,V2,V3 Z15?
P_E7812_P4 TEST_OP VRR,VFENEF,V1,V2,V3,M5 Z15?
P_E78101 TEST_OP VRR,VFENEBS,V1,V2,V3 Z15?
P_E78111 TEST_OP VRR,VFENEHS,V1,V2,V3 Z15?
P_E78121 TEST_OP VRR,VFENEFS,V1,V2,V3 Z15?

P_E78102 TEST_OP VRR,VFENEZB,V1,V2,V3 Z15?
P_E78112 TEST_OP VRR,VFENEZH,V1,V2,V3 Z15?
P_E78122 TEST_OP VRR,VFENEZF,V1,V2,V3 Z15?
P_E78103 TEST_OP VRR,VFENEZBS,V1,V2,V3 Z15?
P_E78113 TEST_OP VRR,VFENEZHS,V1,V2,V3 Z15?
P_E78123 TEST_OP VRR,VFENEZFS,V1,V2,V3 Z15?
P_E782_P4 TEST_OP VRR,VFAE,V1,V2,V3,M4 Z15?
P_E782_P5 TEST_OP VRR,VFAE,V1,V2,V3,M4,M5 Z15?
P_E7820_P3 TEST_OP VRR,VFAEB,V1,V2,V3 Z15?
P_E7820_P4 TEST_OP VRR,VFAEB,V1,V2,V3,M5 Z15?
P_E7821_P3 TEST_OP VRR,VFAEH,V1,V2,V3 Z15?
P_E7821_P4 TEST_OP VRR,VFAEH,V1,V2,V3,M5 Z15?
P_E7822_P3 TEST_OP VRR,VFAEF,V1,V2,V3 Z15?
P_E7822_P4 TEST_OP VRR,VFAEF,V1,V2,V3,M5 Z15?
P_E78201_P3 TEST_OP VRR,VFAEBS,V1,V2,V3 Z15?
P_E78201_P4 TEST_OP VRR,VFAEBS,V1,V2,V3,M5 Z15?
P_E78211_P3 TEST_OP VRR,VFAEHS,V1,V2,V3 Z15?
P_E78211_P4 TEST_OP VRR,VFAEHS,V1,V2,V3,M5 Z15?
P_E78221_P3 TEST_OP VRR,VFAEFS,V1,V2,V3 Z15?
P_E78221_P4 TEST_OP VRR,VFAEFS,V1,V2,V3,M5 Z15?
P_E78202_P3 TEST_OP VRR,VFAEZB,V1,V2,V3 Z15?
P_E78202_P4 TEST_OP VRR,VFAEZB,V1,V2,V3,M5 Z15?
P_E78212_P3 TEST_OP VRR,VFAEZB,V1,V2,V3 Z15?
P_E78212_P4 TEST_OP VRR,VFAEZB,V1,V2,V3,M5 Z15?
P_E78203_P3 TEST_OP VRR,VFAEZBS,V1,V2,V3 Z15?
P_E78203_P4 TEST_OP VRR,VFAEZBS,V1,V2,V3,M5 Z15?
P_E78213_P3 TEST_OP VRR,VFAEZHS,V1,V2,V3 Z15?
P_E78213_P4 TEST_OP VRR,VFAEZHS,V1,V2,V3,M5 Z15?
P_E78222_P3 TEST_OP VRR,VFAEZF,V1,V2,V3 RPI 2221
P_E78222_P4 TEST_OP VRR,VFAEZF,V1,V2,V3,M4 RPI 2221
P_E78223_P3 TEST_OP VRR,VFAEZFS,V1,V2,V3 Z15?
P_E78223_P4 TEST_OP VRR,VFAEZFS,V1,V2,V3,M5 Z15?
P_E784 TEST_OP VRR,VPDI,V1,V2,V3,M4 Z15?
P_E785 TEST_OP VRR,VBPERM,V1,V2,V3 Z15?
P_E786 TEST_OP VRI,VSLD,V1,V2,V3,I4 Z15
P_E787 TEST_OP VRI,VSRD,V1,V2,V3,I4 Z15
P_E78A_P5 TEST_OP VRR,VSTRC,V1,V2,V3,V4,M5 Z15?
P_E78A_P6 TEST_OP VRR,VSTRC,V1,V2,V3,V4,M5,M6 Z15?
P_E78A0_P5 TEST_OP VRR,VSTRCB,V1,V2,V3,V4 Z15
P_E78A0_P6 TEST_OP VRR,VSTRCB,V1,V2,V3,V4,M6 Z15
P_E78A1_P5 TEST_OP VRR,VSTRCH,V1,V2,V3,V4 Z15

P_E78A1_P6 TEST_OP VRR,VSTRCH,V1,V2,V3,V4,M6 Z15
P_E78A2_P5 TEST_OP VRR,VSTRCF,V1,V2,V3,V4 Z15
P_E78A2_P6 TEST_OP VRR,VSTRCF,V1,V2,V3,V4,M6 Z15
P_E78A01_P5 TEST_OP VRR,VSTRCBS,V1,V2,V3,V4 Z16
P_E78A01_P6 TEST_OP VRR,VSTRCBS,V1,V2,V3,V4,M6 Z16
P_E78A11_P5 TEST_OP VRR,VSTRCHS,V1,V2,V3,V4 Z16
P_E78A11_P6 TEST_OP VRR,VSTRCHS,V1,V2,V3,V4,M6 Z16
P_E78A21_P5 TEST_OP VRR,VSTRCFS,V1,V2,V3,V4 Z16
P_E78A21_P6 TEST_OP VRR,VSTRCFS,V1,V2,V3,V4,M6 Z16
P_E78A02_P4 TEST_OP VRR,VSTRCZB,V1,V2,V3,V4 Z15
P_E78A02_P5 TEST_OP VRR,VSTRCZB,V1,V2,V3,V4,M5 Z15
P_E78A12_P4 TEST_OP VRR,VSTRCZH,V1,V2,V3,V4 Z15
P_E78A12_P5 TEST_OP VRR,VSTRCZH,V1,V2,V3,V4,M5 Z15
P_E78A22_P4 TEST_OP VRR,VSTRCF,Z,V1,V2,V3,V4 Z15
P_E78A22_P5 TEST_OP VRR,VSTRCF,Z,V1,V2,V3,V4,M5 Z15
P_E78A03_P4 TEST_OP VRR,VSTRCZBS,V1,V2,V3,V4 Z15
P_E78A03_P5 TEST_OP VRR,VSTRCZBS,V1,V2,V3,V4,M5 Z15
P_E78A13_P4 TEST_OP VRR,VSTRCZHS,V1,V2,V3,V4 Z15
P_E78A13_P5 TEST_OP VRR,VSTRCZHS,V1,V2,V3,V4,M5 Z15
P_E78A23_P4 TEST_OP VRR,VSTRCZFS,V1,V2,V3,V4 Z15
P_E78A23_P5 TEST_OP VRR,VSTRCZFS,V1,V2,V3,V4,M5 Z15
P_E78B_P5 TEST_OP VRR,VSTRS,V1,V2,V3,V4,M5 Z15
P_E78B_P6 TEST_OP VRR,VSTRS,V1,V2,V3,V4,M5,M6 Z15
P_E78B0_P5 TEST_OP VRR,VSTRSB,V1,V2,V3,V4 Z15
P_E78B0_P6 TEST_OP VRR,VSTRSB,V1,V2,V3,V4,M6 Z15
P_E78B1_P5 TEST_OP VRR,VSTRSH,V1,V2,V3,V4 Z15
P_E78B1_P6 TEST_OP VRR,VSTRSH,V1,V2,V3,V4,M6 Z15
P_E78B2_P5 TEST_OP VRR,VSTRSF,V1,V2,V3,V4 Z15
P_E78B2_P6 TEST_OP VRR,VSTRSF,V1,V2,V3,V4,M6 Z15
P_E78B02 TEST_OP VRR,VSTRSZB,V1,V2,V3,V4 Z15
P_E78B12 TEST_OP VRR,VSTRSZH,V1,V2,V3,V4 Z15
P_E78B22 TEST_OP VRR,VSTRSZF,V1,V2,V3,V4 Z15
P_E78C TEST_OP VRR,VPERM,V1,V2,V3,V4 Z15?
P_E78D TEST_OP VRR,VSEL,V1,V2,V3,V4 Z15?
P_E78E TEST_OP VRR,VFMS,V1,V2,V3,V4,M5,M6 Z15?
P_E78E02 TEST_OP VRR,VFMSSB,V1,V2,V3,V4 Z15?
P_E78E03 TEST_OP VRR,VFMSDB,V1,V2,V3,V4 Z15?
P_E78E82 TEST_OP VRR,WFMSSB,V1,V2,V3,V4 Z15?
P_E78E83 TEST_OP VRR,WFMSDB,V1,V2,V3,V4 Z15?
P_E78E84 TEST_OP VRR,WFMSXB,V1,V2,V3,V4 Z15?
P_E78F TEST_OP VRR,VFMA,V1,V2,V3,V4,M5,M6 Z15?

P_E78F02 TEST_OP VRR,VFMASB,V1,V2,V3,V4 Z15?
P_E78F03 TEST_OP VRR,VFMADB,V1,V2,V3,V4 Z15?
P_E78F82 TEST_OP VRR,WFMASB,V1,V2,V3,V4 Z15?
P_E78F83 TEST_OP VRR,WFMADB,V1,V2,V3,V4 Z15?
P_E78F84 TEST_OP VRR,WFMAXB,V1,V2,V3,V4 Z15?
P_E794 TEST_OP VRR,VPK,V1,V2,V3,M4 Z15?
P_E7941 TEST_OP VRR,VPKH,V1,V2,V3 Z15?
P_E7942 TEST_OP VRR,VPKF,V1,V2,V3 Z15?
P_E7943 TEST_OP VRR,VPKG,V1,V2,V3 Z15?
P_E795 TEST_OP VRR,VPKLS,V1,V2,V3,M4,M5 Z15?
P_E79510 TEST_OP VRR,VPKLSH,V1,V2,V3 Z15?
P_E79520 TEST_OP VRR,VPKLSF,V1,V2,V3 Z15?
P_E79530 TEST_OP VRR,VPKLSG,V1,V2,V3 Z15?
P_E79511 TEST_OP VRR,VPKLSHS,V1,V2,V3 Z15?
P_E79521 TEST_OP VRR,VPKLSFS,V1,V2,V3 Z15?
P_E79531 TEST_OP VRR,VPKLSGS,V1,V2,V3 Z15?
P_E797 TEST_OP VRR,VPKS,V1,V2,V3,M4,M5 Z15?
P_E79710 TEST_OP VRR,VPKSH,V1,V2,V3 Z15?
P_E79720 TEST_OP VRR,VPKSF,V1,V2,V3 Z15?
P_E79730 TEST_OP VRR,VPKSG,V1,V2,V3 Z15?
P_E79711 TEST_OP VRR,VPKSHS,V1,V2,V3 Z15?
P_E79721 TEST_OP VRR,VPKSFS,V1,V2,V3 Z15?
P_E79731 TEST_OP VRR,VPKSGS,V1,V2,V3 Z15?
P_E79E TEST_OP VRR,VFNMS,V1,V2,V3,V4,M5,M6 Z15?
P_E79E02 TEST_OP VRR,VFN MSSB,V1,V2,V3,V4 Z15?
P_E79E03 TEST_OP VRR,VFNMSDB,V1,V2,V3,V4 Z15?
P_E79E82 TEST_OP VRR,WFN MSSB,V1,V2,V3,V4 Z15?
P_E79E83 TEST_OP VRR,WFNMSDB,V1,V2,V3,V4 Z15?
P_E79E84 TEST_OP VRR,WFNMSXB,V1,V2,V3,V4 Z15?
P_E79F TEST_OP VRR,VFNMA,V1,V2,V3,V4,M5,M6 Z15?
P_E79F02 TEST_OP VRR,VFN MASB,V1,V2,V3,V4 Z15?
P_E79F03 TEST_OP VRR,VFN MADB,V1,V2,V3,V4 Z15?
P_E79F82 TEST_OP VRR,WFN MASB,V1,V2,V3,V4 Z15?
P_E79F83 TEST_OP VRR,WFN MADB,V1,V2,V3,V4 Z15?
P_E79F84 TEST_OP VRR,WFN MAXB,V1,V2,V3,V4 Z15?
P_E7A1 TEST_OP VRR,VMLH,V1,V2,V3,M4 Z15?
P_E7A10 TEST_OP VRR,VMLHB,V1,V2,V3 Z15?
P_E7A11 TEST_OP VRR,VMLHH,V1,V2,V3 Z15?
P_E7A12 TEST_OP VRR,VMLHF,V1,V2,V3 Z15?
P_E7A2 TEST_OP VRR,VML,V1,V2,V3,M4 Z15?
P_E7A20 TEST_OP VRR,VMLB,V1,V2,V3 Z15?

P_E7A21 TEST_OP VRR,VMLHW,V1,V2,V3 Z15?
P_E7A22 TEST_OP VRR,VMLF,V1,V2,V3 Z15?
P_E7A3 TEST_OP VRR,VMH,V1,V2,V3,M4 Z15?
P_E7A30 TEST_OP VRR,VMHB,V1,V2,V3 Z15?
P_E7A31 TEST_OP VRR,VMHH,V1,V2,V3 Z15?
P_E7A32 TEST_OP VRR,VMHF,V1,V2,V3 Z15?
P_E7A4 TEST_OP VRR,VMLE,V1,V2,V3,M4 Z15?
P_E7A40 TEST_OP VRR,VMLEB,V1,V2,V3 Z15?
P_E7A41 TEST_OP VRR,VMLEH,V1,V2,V3 Z15?
P_E7A42 TEST_OP VRR,VMLEF,V1,V2,V3 Z15?
P_E7A5 TEST_OP VRR,VMLO,V1,V2,V3,M4 Z15?
P_E7A50 TEST_OP VRR,VMLOB,V1,V2,V3 Z15?
P_E7A51 TEST_OP VRR,VMLOH,V1,V2,V3 Z15?
P_E7A52 TEST_OP VRR,VMLOF,V1,V2,V3 Z15?
P_E7A6 TEST_OP VRR,VME,V1,V2,V3,M4 Z15?
P_E7A60 TEST_OP VRR,VMEB,V1,V2,V3 Z15?
P_E7A61 TEST_OP VRR,VMEH,V1,V2,V3 Z15?
P_E7A62 TEST_OP VRR,VMEF,V1,V2,V3 Z15?
P_E7A7 TEST_OP VRR,VMO,V1,V2,V3,M4 Z15?
P_E7A70 TEST_OP VRR,VMOB,V1,V2,V3 Z15?
P_E7A71 TEST_OP VRR,VMOH,V1,V2,V3 Z15?
P_E7A72 TEST_OP VRR,VMOF,V1,V2,V3 Z15?
P_E7A9 TEST_OP VRR,VMALH,V1,V2,V3,V4,M5 Z15?
P_E7A90 TEST_OP VRR,VMALHB,V1,V2,V3,V4 Z15?
P_E7A91 TEST_OP VRR,VMALHH,V1,V2,V3,V4 Z15?
P_E7A92 TEST_OP VRR,VMALHF,V1,V2,V3,V4 Z15?
P_E7AA TEST_OP VRR,VMAL,V1,V2,V3,V4,M5 Z15?
P_E7AA0 TEST_OP VRR,VMALB,V1,V2,V3,V4 Z15?
P_E7AA1 TEST_OP VRR,VMALHW,V1,V2,V3,V4 Z15?
P_E7AA2 TEST_OP VRR,VMALF,V1,V2,V3,V4 Z15?
P_E7AB TEST_OP VRR,VMAH,V1,V2,V3,M4,M5 Z15?
P_E7AB0 TEST_OP VRR,VMAHB,V1,V2,V3,M5 Z15?
P_E7AB1 TEST_OP VRR,VMAHH,V1,V2,V3,M5 Z15?
P_E7AB2 TEST_OP VRR,VMAHF,V1,V2,V3,M5 Z15?
P_E7AC TEST_OP VRR,VMALE,V1,V2,V3,M4,M5 Z15?
P_E7AC0 TEST_OP VRR,VMALEB,V1,V2,V3,M5 Z15?
P_E7AC1 TEST_OP VRR,VMALEH,V1,V2,V3,M5 Z15?
P_E7AC2 TEST_OP VRR,VMALEF,V1,V2,V3,M5 Z15?
P_E7AD TEST_OP VRR,VMALO,V1,V2,V3,M4,M5 Z15?
P_E7AD0 TEST_OP VRR,VMALOB,V1,V2,V3,M5 Z15?
P_E7AD1 TEST_OP VRR,VMALOH,V1,V2,V3,M5 Z15?

P_E7AD2 TEST_OP VRR,VMALOF,V1,V2,V3,M5 Z15?
P_E7AE TEST_OP VRR,VMAE,V1,V2,V3,M4,M5 Z15?
P_E7AE0 TEST_OP VRR,VMAEB,V1,V2,V3,M5 Z15?
P_E7AE1 TEST_OP VRR,VMAEH,V1,V2,V3,M5 Z15?
P_E7AE2 TEST_OP VRR,VMAEF,V1,V2,V3,M5 Z15?
P_E7AF TEST_OP VRR,VMAO,V1,V2,V3,M4,M5 Z15?
P_E7AF0 TEST_OP VRR,VMAOB,V1,V2,V3,M5 Z15?
P_E7AF1 TEST_OP VRR,VMAOH,V1,V2,V3,M5 Z15?
P_E7AF2 TEST_OP VRR,VMAOF,V1,V2,V3,M5 Z15?
P_E7B4 TEST_OP VRR,VGFM,V1,V2,V3,M4 Z15?
P_E7B40 TEST_OP VRR,VGFMB,V1,V2,V3 Z15?
P_E7B41 TEST_OP VRR,VGFMH,V1,V2,V3 Z15?
P_E7B42 TEST_OP VRR,VGFMF,V1,V2,V3 Z15?
P_E7B43 TEST_OP VRR,VGFMG,V1,V2,V3 Z15?
P_E7B8 TEST_OP VRR,VMSL,V1,V2,V3,V4,M5,M6 Z15?
P_E7B83 TEST_OP VRR,VMSLG,V1,V2,V3,V4,M6 Z15?
P_E7B9 TEST_OP VRR,VACCC,V1,V2,V3,V4,M5 Z15?
P_E7B94 TEST_OP VRR,VACCCQ,V1,V2,V3,V4 Z15?
P_E7BB TEST_OP VRR,VAC,V1,V2,V3,V4,M5 Z15?
P_E7BB4 TEST_OP VRR,VACQ,V1,V2,V3,V4 Z15?
P_E7BC TEST_OP VRR,VGFMA,V1,V2,V3,V4,M5 Z15?
P_E7BC0 TEST_OP VRR,VGFMAB,V1,V2,V3,V4 Z15?
P_E7BC1 TEST_OP VRR,VGFMAH,V1,V2,V3,V4 Z15?
P_E7BC2 TEST_OP VRR,VGFMAF,V1,V2,V3,V4 Z15?
P_E7BC3 TEST_OP VRR,VGFMAG,V1,V2,V3,V4 Z15?
P_E7BD TEST_OP VRR,VSBCBI,V1,V2,V3,V4,M5 Z15?
P_E7BD4 TEST_OP VRR,VSBCBIQ,V1,V2,V3,V4 Z15?
P_E7BF TEST_OP VRR,VSBI,V1,V2,V3,V4,M5 Z15?
P_E7BF4 TEST_OP VRR,VSBIQ,V1,V2,V3,V4 Z15?
P_E7C0 TEST_OP VRR,VCLFP,V1,V2,M3,M4,M5 Z15
P_E7C0 TEST_OP VRR,VCLGD,V1,V2,M3,M4,M5 Z15
P_E7C02 TEST_OP VRR,VCLFEB,V1,V2,M4,M5 Z15 ADDS 8 TO M4
P_E7C03 TEST_OP VRR,VCLGDB,V1,V2,M4,M5 Z15 ADDS 8 TO M4
P_E7C1 TEST_OP VRR,VCDLG,V1,V2,M3,M4,M5 Z15
P_E7C1 TEST_OP VRR,VCFPL,V1,V2,M3,M4,M5 Z15
P_E7C12 TEST_OP VRR,VCELFB,V1,V2,M4,M5 Z15
P_E7C13 TEST_OP VRR,VCDLGB,V1,V2,M4,M5 Z15
P_E7C12 TEST_OP VRR,WCELFB,V1,V2,M4,M5 Z15
P_E7C13 TEST_OP VRR,WCDLGB,V1,V2,M4,M5 Z15

P_E7C2 TEST_OP VRR,VCGD,V1,V2,M3,M4,M5 Z15
P_E7C2 TEST_OP VRR,VCSFP,V1,V2,M3,M4,M5 Z15
P_E7C22 TEST_OP VRR,VCFEB,V1,V2,M4,M5 Z15
P_E7C23 TEST_OP VRR,VCGDB,V1,V2,M4,M5 Z15
P_E7C22 TEST_OP VRR,WCFEB,V1,V2,M4,M5 Z15
P_E7C23 TEST_OP VRR,WCGDB,V1,V2,M4,M5 Z15
P_E7C3 TEST_OP VRR,VCDG,V1,V2,M4,M5 Z15
P_E7C3 TEST_OP VRR,VCFPS,V1,V2,M3,M4,M5 Z15
P_E7C32 TEST_OP VRR,VCEFB,V1,V2,M4,M5 Z15
P_E7C33 TEST_OP VRR,VCDGB,V1,V2,M4,M5 Z15
P_E7C32 TEST_OP VRR,WCEFB,V1,V2,M4,M5 Z15
P_E7C33 TEST_OP VRR,WCDGB,V1,V2,M4,M5 Z15
P_E7C4 TEST_OP VRR,VFLL,V1,V2,M3,M4 Z15?
P_E7C4 TEST_OP VRR,VLDE,V1,V2,M3,M4 Z15?
P_E7C420 TEST_OP VRR,VLDEB,V1,V2 Z15?
P_E7C428 TEST_OP VRR,WLDEB,V1,V2 Z15?
P_E7C420 TEST_OP VRR,VFLLS,V1,V2 Z15?
P_E7C428 TEST_OP VRR,WFLLS,V1,V2 Z15?
P_E7C438 TEST_OP VRR,WFLLD,V1,V2 Z15?
P_E7C5 TEST_OP VRR,VFLR,V1,V2,M3,M4,M5 Z15?
P_E7C5 TEST_OP VRR,VLED,V1,V2,M3,M4,M5 Z15?
P_E7C53 TEST_OP VRR,VLEDB,V1,V2,M4,M5 Z15?
P_E7C53 TEST_OP VRR,WLEDB,V1,V2,M4,M5 Z15?
P_E7C53 TEST_OP VRR,VFLRD,V1,V2,M4,M5 Z15?
P_E7C53 TEST_OP VRR,WFLRD,V1,V2,M4,M5 Z15?
P_E7C54 TEST_OP VRR,WFLRX,V1,V2,M4,M5 Z15?
P_E7C7 TEST_OP VRR,VFI,V1,V2,M3,M4,M5 Z15?
P_E7C72 TEST_OP VRR,VFISB,V1,V2,M4,M5 Z15?
P_E7C72 TEST_OP VRR,WFISB,V1,V2,M4,M5 Z15?
P_E7C73 TEST_OP VRR,VFIDB,V1,V2,M4,M5 Z15?
P_E7C73 TEST_OP VRR,WFIDB,V1,V2,M4,M5 Z15?
P_E7C74 TEST_OP VRR,WFIXB,V1,V2,M4,M5 Z15?
P_E7CA TEST_OP VRR,WFK,V1,V2,M3,M4 Z15?
P_E7CA20 TEST_OP VRR,WFKSB,V1,V2 Z15?
P_E7CA30 TEST_OP VRR,WFKDB,V1,V2 Z15?
P_E7CA40 TEST_OP VRR,WFKXB,V1,V2 Z15?
P_E7CB TEST_OP VRR,WFC,V1,V2,M3,M4 Z15?
P_E7CB20 TEST_OP VRR,WFCSB,V1,V2 Z15?
P_E7CB30 TEST_OP VRR,WFCDB,V1,V2 Z15?
P_E7CB40 TEST_OP VRR,WfCXB,V1,V2 Z15?
P_E7CC TEST_OP VRR,VFPSO,V1,V2,M3,M4,M5 Z15?

P_E7CC20 TEST_OP VRR,VFPSOSB,V1,V2,M5 Z15?
P_E7CC28 TEST_OP VRR,WFPSOSB,V1,V2,M5 Z15?
P_E7CC200 TEST_OP VRR,VFLCSB,V1,V2 Z15?
P_E7CC280 TEST_OP VRR,WFLCSB,V1,V2 Z15?
P_E7CC201 TEST_OP VRR,VFLNSB,V1,V2 Z15?
P_E7CC281 TEST_OP VRR,WFLNSB,V1,V2 Z15?
P_E7CC202 TEST_OP VRR,VFLPSB,V1,V2 Z15?
P_E7CC282 TEST_OP VRR,WFLPSB,V1,V2 Z15?
P_E7CC30 TEST_OP VRR,VFPSODB,V1,V2,M5 Z15?
P_E7CC38 TEST_OP VRR,WFPSODB,V1,V2,M5 Z15?
P_E7CC300 TEST_OP VRR,VFLCDB,V1,V2 Z15?
P_E7CC380 TEST_OP VRR,WFLCDB,V1,V2 Z15?
P_E7CC301 TEST_OP VRR,VFLNDB,V1,V2 Z15?
P_E7CC381 TEST_OP VRR,WFLNDB,V1,V2 Z15?
P_E7CC302 TEST_OP VRR,VFLPDB,V1,V2 Z15?
P_E7CC382 TEST_OP VRR,WFLPDB,V1,V2 Z15?
P_E7CC48 TEST_OP VRR,WFPSOXB,V1,V2,M5 Z15?
P_E7CC480 TEST_OP VRR,WFLCXB,V1,V2 Z15?
P_E7CC481 TEST_OP VRR,WFLNXB,V1,V2 Z15?
P_E7CC481 TEST_OP VRR,WFLPXB,V1,V2 Z15?
P_E7CE TEST_OP VRR,VFSQ,V1,V2,M3,M4 Z15?
P_E7CE20 TEST_OP VRR,VFSQSB,V1,V2 Z15?
P_E7CE30 TEST_OP VRR,VFSQDB,V1,V2 Z15?
P_E7CE28 TEST_OP VRR,WFSQSB,V1,V2 Z15?
P_E7CE38 TEST_OP VRR,WFSQDB,V1,V2 Z15?
P_E7CE48 TEST_OP VRR,WFSQXB,V1,V2 Z15?
P_E7D4 TEST_OP VRR,VUPLL,V1,V2,M3 Z15?
P_E7D40 TEST_OP VRR,VUPLLB,V1,V2 Z15
P_E7D41 TEST_OP VRR,VUPLLH,V1,V2 Z15
P_E7D42 TEST_OP VRR,VUPLL,F,V1,V2 Z15
P_E7D5 TEST_OP VRR,VUPLH,V1,V2,M3 Z15?
P_E7D50 TEST_OP VRR,VUPLHB,V1,V2 Z15
P_E7D51 TEST_OP VRR,VUPLHH,V1,V2 Z15
P_E7D52 TEST_OP VRR,VUPLHF,V1,V2 Z15
P_E7D6 TEST_OP VRR,VUPL,V1,V2,M3 Z15?
P_E7D60 TEST_OP VRR,VUPLB,V1,V2 Z15
P_E7D61 TEST_OP VRR,VUPLHW,V1,V2 Z15
P_E7D62 TEST_OP VRR,VUPLF,V1,V2 Z15
P_E7D7 TEST_OP VRR,VUPH,V1,V2,M3 Z15?
P_E7D70 TEST_OP VRR,VUPHB,V1,V2 Z15
P_E7D71 TEST_OP VRR,VUPHH,V1,V2 Z15

P_E7D72 TEST_OP VRR,VUPHF,V1,V2 Z15
P_E7D8 TEST_OP VRR,VTM,V1,V2 Z15?
P_E7D9 TEST_OP VRR,VECL,V1,V2,M3 Z15?
P_E7D90 TEST_OP VRR,VECLB,V1,V2 Z15?
P_E7D91 TEST_OP VRR,VECLH,V1,V2 Z15?
P_E7D92 TEST_OP VRR,VECLF,V1,V2 Z15?
P_E7D93 TEST_OP VRR,VECLG,V1,V2 Z15?
P_E7DB TEST_OP VRR,VEC,V1,V2,M3 Z15?
P_E7DB0 TEST_OP VRR,VECB,V1,V2 Z15?
P_E7DB1 TEST_OP VRR,VECH,V1,V2 Z15?
P_E7DB2 TEST_OP VRR,VECF,V1,V2 Z15?
P_E7DB3 TEST_OP VRR,VECG,V1,V2 Z15?
P_E7DE TEST_OP VRR,VLC,V1,V2,M3 Z15?
P_E7DE0 TEST_OP VRR,VLCB,V1,V2 Z15?
P_E7DE1 TEST_OP VRR,VLCH,V1,V2 Z15?
P_E7DE2 TEST_OP VRR,VLCF,V1,V2 Z15?
P_E7DE3 TEST_OP VRR,VLCG,V1,V2 Z15?
P_E7DF TEST_OP VRR,VLP,V1,V2,M3 Z15?
P_E7DF0 TEST_OP VRR,VLPB,V1,V2 Z15?
P_E7DF1 TEST_OP VRR,VLPH,V1,V2 Z15?
P_E7DF2 TEST_OP VRR,VLPF,V1,V2 Z15?
P_E7DF3 TEST_OP VRR,VLPG,V1,V2 Z15?
P_E7E2 TEST_OP VRR,VFS,V1,V2,V3,M4,M5 Z15?
P_E7E220 TEST_OP VRR,VFSSB,V1,V2,V3 Z15?
P_E7E230 TEST_OP VRR,VFSDB,V1,V2,V3 Z15?
P_E7E228 TEST_OP VRR,WFSSB,V1,V2,V3 Z15?
P_E7E238 TEST_OP VRR,WFSDB,V1,V2,V3 Z15?
P_E7E248 TEST_OP VRR,WFSXB,V1,V2,V3 Z15?
P_E7E3 TEST_OP VRR,VFA,V1,V2,V3,M4,M5 Z15?
P_E7E320 TEST_OP VRR,VFASB,V1,V2,V3 Z15?
P_E7E330 TEST_OP VRR,VFADB,V1,V2,V3 Z15?
P_E7E328 TEST_OP VRR,WFASB,V1,V2,V3 Z15?
P_E7E338 TEST_OP VRR,WFADB,V1,V2,V3 Z15?
P_E7E348 TEST_OP VRR,WFAXB,V1,V2,V3 Z15?
P_E7E5 TEST_OP VRR,VFD,V1,V2,V3,M4,M5 Z15?
P_E7E520 TEST_OP VRR,VFDSB,V1,V2,V3 Z15?
P_E7E528 TEST_OP VRR,WFDSB,V1,V2,V3 Z15?
P_E7E530 TEST_OP VRR,VFddb,V1,V2,V3 Z15?
P_E7E538 TEST_OP VRR,WFddb,V1,V2,V3 Z15?
P_E7E548 TEST_OP VRR,WFDXB,V1,V2,V3 Z15?
P_E7E7 TEST_OP VRR,VFM,V1,V2,V3,M4,M5 Z15?

P_E7E720 TEST_OP VRR,VFMSB,V1,V2,V3 Z15?
P_E7E730 TEST_OP VRR,VFMDB,V1,V2,V3 Z15?
P_E7E728 TEST_OP VRR,WFMSB,V1,V2,V3 Z15?
P_E7E738 TEST_OP VRR,WFMDB,V1,V2,V3 Z15?
P_E7E748 TEST_OP VRR,WFMXB,V1,V2,V3 Z15?
P_E7E8 TEST_OP VRR,VFCE,V1,V2,V3,M4,M5,M6 Z15?
P_E7E8200 TEST_OP VRR,VFCESB,V1,V2,V3 Z15?
P_E7E8201 TEST_OP VRR,VFCESBS,V1,V2,V3 Z15?
P_E7E8300 TEST_OP VRR,VFCEDB,V1,V2,V3 Z15?
P_E7E8301 TEST_OP VRR,VFCEDBS,V1,V2,V3 Z15?
P_E7E8280 TEST_OP VRR,WFCESB,V1,V2,V3 Z15?
P_E7E8281 TEST_OP VRR,WFCESBS,V1,V2,V3 Z15?
P_E7E8380 TEST_OP VRR,WFCEDB,V1,V2,V3 Z15?
P_E7E8381 TEST_OP VRR,WFCEDBS,V1,V2,V3 Z15?
P_E7E8480 TEST_OP VRR,WFCEXB,V1,V2,V3 Z15?
P_E7E8481 TEST_OP VRR,WFCEXBS,V1,V2,V3 Z15?
P_E7E8240 TEST_OP VRR,VFKESB,V1,V2,V3 Z15?
P_E7E8241 TEST_OP VRR,VFKESBS,V1,V2,V3 Z15?
P_E7E8340 TEST_OP VRR,VFKEDB,V1,V2,V3 Z15?
P_E7E8341 TEST_OP VRR,VFKEDBS,V1,V2,V3 Z15?
P_E7E82C0 TEST_OP VRR,WFKESB,V1,V2,V3 Z15?
P_E7E82C1 TEST_OP VRR,WFKESBS,V1,V2,V3 Z15?
P_E7E83C0 TEST_OP VRR,WFKEDB,V1,V2,V3 Z15?
P_E7E83C1 TEST_OP VRR,WFKEDBS,V1,V2,V3 Z15?
P_E7E84C0 TEST_OP VRR,WFKEXB,V1,V2,V3 Z15?
P_E7E84C1 TEST_OP VRR,WFKEXBS,V1,V2,V3 Z15?
P_E7EA TEST_OP VRR,VFCHE,V1,V2,V3,M4,M5,M6 Z15?
P_E7EA200 TEST_OP VRR,VFCHESB,V1,V2,V3 Z15?
P_E7EA201 TEST_OP VRR,VFCHESSB,V1,V2,V3 Z15?
P_E7EA300 TEST_OP VRR,VFCHEDB,V1,V2,V3 Z15?
P_E7EA301 TEST_OP VRR,VFCCHEDBS,V1,V2,V3 Z15?
P_E7EA280 TEST_OP VRR,WFCHESB,V1,V2,V3 Z15?
P_E7EA281 TEST_OP VRR,WFCHESSB,V1,V2,V3 Z15?
P_E7EA380 TEST_OP VRR,WFCHEDB,V1,V2,V3 Z15?
P_E7EA381 TEST_OP VRR,WFCCHEDBS,V1,V2,V3 Z15?
P_E7EA480 TEST_OP VRR,WFCHEXB,V1,V2,V3 Z15?
P_E7EA481 TEST_OP VRR,WFCHEXBS,V1,V2,V3 Z15?
P_E7EA240 TEST_OP VRR,VFKHESB,V1,V2,V3 Z15?
P_E7EA241 TEST_OP VRR,VFKHESBS,V1,V2,V3 Z15?
P_E7EA340 TEST_OP VRR,VFKHEDB,V1,V2,V3 Z15?
P_E7EA341 TEST_OP VRR,VFKHEDBS,V1,V2,V3 Z15?

P_E7EA2C0 TEST_OP VRR,WFKHESB,V1,V2,V3 Z15?
P_E7EA2C1 TEST_OP VRR,WFKHESBS,V1,V2,V3 Z15?
P_E7EA3C0 TEST_OP VRR,WFKHEDB,V1,V2,V3 Z15?
P_E7EA3C1 TEST_OP VRR,WFKHEDBS,V1,V2,V3 Z15?
P_E7EA4C0 TEST_OP VRR,WFKHEXB,V1,V2,V3 Z15?
P_E7EA4C1 TEST_OP VRR,WFKHEXBS,V1,V2,V3 Z15?
P_E7EB TEST_OP VRR,VFCH,V1,V2,V3,M4,M5,M6 Z15?
P_E7EB200 TEST_OP VRR,VFCHSB,V1,V2,V3 Z15?
P_E7EB201 TEST_OP VRR,VFCHSBS,V1,V2,V3 Z15?
P_E7EB300 TEST_OP VRR,VFCHDB,V1,V2,V3 Z15?
P_E7EB301 TEST_OP VRR,VFCHDBS,V1,V2,V3 Z15?
P_E7EB280 TEST_OP VRR,WFCHSB,V1,V2,V3 Z15?
P_E7EB281 TEST_OP VRR,WFCHSBS,V1,V2,V3 Z15?
P_E7EB380 TEST_OP VRR,WFCHDB,V1,V2,V3 Z15?
P_E7EB381 TEST_OP VRR,WFCHDBS,V1,V2,V3 Z15?
P_E7EB480 TEST_OP VRR,WFCHXB,V1,V2,V3 Z15?
P_E7EB481 TEST_OP VRR,WFCHXBS,V1,V2,V3 Z15?
P_E7EB240 TEST_OP VRR,VFKHSB,V1,V2,V3 Z15?
P_E7EB241 TEST_OP VRR,VFKHSBS,V1,V2,V3 Z15?
P_E7EB340 TEST_OP VRR,VFKHDB,V1,V2,V3 Z15?
P_E7EB341 TEST_OP VRR,VFKHDBS,V1,V2,V3 Z15?
P_E7EB2C0 TEST_OP VRR,WFKHSB,V1,V2,V3 Z15?
P_E7EB2C1 TEST_OP VRR,WFKHSBS,V1,V2,V3 Z15?
P_E7EB3C0 TEST_OP VRR,WFKHDB,V1,V2,V3 Z15?
P_E7EB3C1 TEST_OP VRR,WFKHDBS,V1,V2,V3 Z15?
P_E7EB4C0 TEST_OP VRR,WFKHXB,V1,V2,V3 Z15?
P_E7EB4C1 TEST_OP VRR,WFKHXBS,V1,V2,V3 Z15?
P_E7EE TEST_OP VRR,VFMIN,V1,V2,V3,M4,M5,M6 Z15?
P_E7EE20 TEST_OP VRR,VFMINSB,V1,V2,V3,M6 Z15?
P_E7EE30 TEST_OP VRR,VFMINDB,V1,V2,V3,M6 Z15?
P_E7EE28 TEST_OP VRR,WFMINSB,V1,V2,V3,M6 Z15?
P_E7EE38 TEST_OP VRR,WFMINDB,V1,V2,V3,M6 Z15?
P_E7EE48 TEST_OP VRR,WFMINXB,V1,V2,V3,M6 Z15?
P_E7EF TEST_OP VRR,VFMAX,V1,V2,V3,M4,M5,M6 Z15?
P_E7EF20 TEST_OP VRR,VFMAXSB,V1,V2,V3,M6 Z15?
P_E7EF30 TEST_OP VRR,VFMAXDB,V1,V2,V3,M6 Z15?
P_E7EF28 TEST_OP VRR,WFMAXSB,V1,V2,V3,M6 Z15?
P_E7EF38 TEST_OP VRR,WFMAXDB,V1,V2,V3,M6 Z15?
P_E7EF48 TEST_OP VRR,WFMAXXB,V1,V2,V3,M6 Z15?
P_E7F0 TEST_OP VRR,VAVGL,V1,V2,V3,M4 Z15?
P_E7F00 TEST_OP VRR,VAVGLB,V1,V2,V3 Z15?

P_E7F01 TEST_OP VRR,VAVGLH,V1,V2,V3 Z15?
P_E7F02 TEST_OP VRR,VAVGLF,V1,V2,V3 Z15?
P_E7F03 TEST_OP VRR,VAVGLG,V1,V2,V3 Z15?
P_E7F1 TEST_OP VRR,VACC,V1,V2,V3,M4 Z15?
P_E7F10 TEST_OP VRR,VACCB,V1,V2,V3 Z15?
P_E7F11 TEST_OP VRR,VACCH,V1,V2,V3 Z15?
P_E7F12 TEST_OP VRR,VACCF,V1,V2,V3 Z15?
P_E7F13 TEST_OP VRR,VACCG,V1,V2,V3 Z15?
P_E7F14 TEST_OP VRR,VACCO,V1,V2,V3 Z15?
P_E7F2 TEST_OP VRR,VAVG,V1,V2,V3,M4 Z15?
P_E7F20 TEST_OP VRR,VAVGB,V1,V2,V3 Z15?
P_E7F21 TEST_OP VRR,VAVGH,V1,V2,V3 Z15?
P_E7F22 TEST_OP VRR,VAVGF,V1,V2,V3 Z15?
P_E7F23 TEST_OP VRR,VAVGG,V1,V2,V3 Z15?
P_E7F3 TEST_OP VRR,VA,V1,V2,V3,M4 Z15?
P_E7F30 TEST_OP VRR,VAB,V1,V2,V3 Z15?
P_E7F31 TEST_OP VRR,VAH,V1,V2,V3 Z15?
P_E7F32 TEST_OP VRR,VAF,V1,V2,V3 Z15?
P_E7F33 TEST_OP VRR,VAG,V1,V2,V3 Z15?
P_E7F34 TEST_OP VRR,VAQ,V1,V2,V3 Z15?
P_E7F5 TEST_OP VRR,VSCBI,V1,V2,V3,M4 Z15?
P_E7F50 TEST_OP VRR,VSCBIB,V1,V2,V3 Z15?
P_E7F51 TEST_OP VRR,VSCBIH,V1,V2,V3 Z15?
P_E7F52 TEST_OP VRR,VSCBIF,V1,V2,V3 Z15?
P_E7F53 TEST_OP VRR,VSCBIG,V1,V2,V3 Z15?
P_E7F54 TEST_OP VRR,VSCBIQ,V1,V2,V3 Z15?
P_E7F7 TEST_OP VRR,VS,V1,V2,V3,M4 Z15?
P_E7F70 TEST_OP VRR,VSB,V1,V2,V3 Z15?
P_E7F71 TEST_OP VRR,VSH,V1,V2,V3 Z15?
P_E7F72 TEST_OP VRR,VSF,V1,V2,V3 Z15?
P_E7F73 TEST_OP VRR,VSG,V1,V2,V3 Z15?
P_E7F74 TEST_OP VRR,VSQ,V1,V2,V3 Z15?
P_E7F8 TEST_OP VRR,VCEQ,V1,V2,V3,M4,M5 Z15?
P_E7F800 TEST_OP VRR,VCEQB,V1,V2,V3 Z15?
P_E7F810 TEST_OP VRR,VCEQH,V1,V2,V3 Z15?
P_E7F820 TEST_OP VRR,VCEQF,V1,V2,V3 Z15?
P_E7F830 TEST_OP VRR,VCEQG,V1,V2,V3 Z15?
P_E7F801 TEST_OP VRR,VCEQBS,V1,V2,V3 Z15?
P_E7F811 TEST_OP VRR,VCEQHS,V1,V2,V3 Z15?
P_E7F821 TEST_OP VRR,VCEQFS,V1,V2,V3 Z15?
P_E7F831 TEST_OP VRR,VCEQGS,V1,V2,V3 Z15?

P_E7F9 TEST_OP VRR,VCHL,V1,V2,V3,M4,M5 Z15?
P_E7F900 TEST_OP VRR,VCHLB,V1,V2,V3 Z15?
P_E7F910 TEST_OP VRR,VCHLH,V1,V2,V3 Z15?
P_E7F920 TEST_OP VRR,VCHLF,V1,V2,V3 Z15?
P_E7F930 TEST_OP VRR,VCHLG,V1,V2,V3 Z15?
P_E7F901 TEST_OP VRR,VCHLBS,V1,V2,V3 Z15?
P_E7F911 TEST_OP VRR,VCHLHS,V1,V2,V3 Z15?
P_E7F921 TEST_OP VRR,VCHLFS,V1,V2,V3 Z15?
P_E7F931 TEST_OP VRR,VCHLGS,V1,V2,V3 Z15?
P_E7FB TEST_OP VRR,VCH,V1,V2,V3,M4,M5 Z15?
P_E7FB00 TEST_OP VRR,VCHB,V1,V2,V3 Z15?
P_E7FB10 TEST_OP VRR,VCHH,V1,V2,V3 Z15?
P_E7FB20 TEST_OP VRR,VCHF,V1,V2,V3 Z15?
P_E7FB30 TEST_OP VRR,VCHG,V1,V2,V3 Z15?
P_E7FB01 TEST_OP VRR,VCHBS,V1,V2,V3 Z15?
P_E7FB11 TEST_OP VRR,VCHHS,V1,V2,V3 Z15?
P_E7FB21 TEST_OP VRR,VCHFS,V1,V2,V3 Z15?
P_E7FB31 TEST_OP VRR,VCHGS,V1,V2,V3 Z15?
P_E7FC TEST_OP VRR,VMNL,V1,V2,V3,M4 Z15?
P_E7FC0 TEST_OP VRR,VMNLB,V1,V2,V3 Z15?
P_E7FC1 TEST_OP VRR,VMNLH,V1,V2,V3 Z15?
P_E7FC2 TEST_OP VRR,VMNLF,V1,V2,V3 Z15?
P_E7FC3 TEST_OP VRR,VMNLG,V1,V2,V3 Z15?
P_E7FD TEST_OP VRR,VMXL,V1,V2,V3,M4 Z15?
P_E7FD0 TEST_OP VRR,VMXLB,V1,V2,V3 Z15?
P_E7FD1 TEST_OP VRR,VMXLH,V1,V2,V3 Z15?
P_E7FD2 TEST_OP VRR,VMXLF,V1,V2,V3 Z15?
P_E7FD3 TEST_OP VRR,VMXLG,V1,V2,V3 Z15?
P_E7FE TEST_OP VRR,VMN,V1,V2,V3,M4 Z15?
P_E7FE0 TEST_OP VRR,VMNB,V1,V2,V3 Z15?
P_E7FE1 TEST_OP VRR,VMNH,V1,V2,V3 Z15?
P_E7FE2 TEST_OP VRR,VMNF,V1,V2,V3 Z15?
P_E7FE3 TEST_OP VRR,VMNG,V1,V2,V3 Z15?
P_E7FF TEST_OP VRR,VMX,V1,V2,V3,M4 Z15?
P_E7FF0 TEST_OP VRR,VMXB,V1,V2,V3 Z15?
P_E7FF1 TEST_OP VRR,VMXH,V1,V2,V3 Z15?
P_E7FF2 TEST_OP VRR,VMXF,V1,V2,V3 Z15?
P_E7FF3 TEST_OP VRR,VMXG,V1,V2,V3 Z15?
P_E8 TEST_OP SS,MVCIN,D1(L1,B1),D2(B2)
P_E9 TEST_OP SSF,PKA,D1(B1),D2(L2,B2)
P_EA TEST_OP SS,UNPKA,D1(L1,B1),D2(B2)

P_EB04 TEST_OP RSY,LMG,R1,R3,D2(B2)
P_EB0A TEST_OP RSY,SRAG,R1,R3,D2(B2)
P_EB0B TEST_OP RSY,SLAG,R1,R3,D2(B2)
P_EB0C TEST_OP RSY,SRLG,R1,R3,D2(B2)
P_EB0D TEST_OP RSY,SLLG,R1,R3,D2(B2)
S_EB0F TEST_OP RSY,TRACG,R1,R3,D2(B2)
P_EB14 TEST_OP RSY,CSY,R1,R3,D2(B2)
P_EB1C TEST_OP RSY,RLLG,R1,R3,D2(B2)
P_EB1D TEST_OP RSY,RLL,R1,R3,D2(B2)
P_EB20 TEST_OP RSY,CLMH,R1,M3,D2(B2)
P_EB21 TEST_OP RSY,CLMY,R1,M3,D2(B2)
P_EB23 TEST_OP RSY,CLT,R1,M3,D2(B2) Z15?
P_EB232 TEST_OP RSY,CLTH,R1,D2(B2) Z15?
P_EB234 TEST_OP RSY,CLTL,R1,D2(B2) Z15?
P_EB236 TEST_OP RSY,CLTNE,R1,D2(B2) Z15?
P_EB238 TEST_OP RSY,CLTE,R1,D2(B2) Z15?
P_EB23A TEST_OP RSY,CLTNL,R1,D2(B2) Z15?
P_EB23C TEST_OP RSY,CLTNH,R1,D2(B2) Z15?
P_EB24 TEST_OP RSY,STMG,R1,R3,D2(B2)
S_EB25 TEST_OP RSY,STCTG,R1,R3,D2(B2)
P_EB26 TEST_OP RSY,STMH,R1,R3,D2(B2)
P_EB2B TEST_OP RSY,CLGT,R1,M3,D2(B2)
P_EB2B2 TEST_OP RSY,CLGTH,R1,D2(B2) Z15?
P_EB2B4 TEST_OP RSY,CLGTL,R1,D2(B2) Z15?
P_EB2B6 TEST_OP RSY,CLGTNE,R1,D2(B2) Z15?
P_EB2B8 TEST_OP RSY,CLGTE,R1,D2(B2) Z15?
P_EB2BA TEST_OP RSY,CLGTNL,R1,D2(B2) Z15?
P_EB2BC TEST_OP RSY,CLGTNH,R1,D2(B2) Z15?
P_EB2C TEST_OP RSY,STCMH,R1,M3,D2(B2)
P_EB2D TEST_OP RSY,STCMY,R1,M3,D2(B2)
S_EB2F TEST_OP RSY,LCTLG,R1,R3,D2(B2)
P_EB30 TEST_OP RSY,CSG,R1,R3,D2(B2)
P_EB31 TEST_OP RSY,CDSY,R1,R3,D2(B2)
P_EB3E TEST_OP RSY,CDSG,R1,R3,D2(B2)
P_EB44 TEST_OP RSY,BXHG,R1,R3,D2(B2)
P_EB45 TEST_OP RSY,BXLEG,R1,R3,D2(B2)
P_EB4C TEST_OP RSY,ECAG,R1,R3,D2(B2)
P_EB51 TEST_OP SIY,TMY,D1(B1),I2
P_EB52 TEST_OP SIY,MVIY,D1(B1),I2
P_EB54 TEST_OP SIY,NIY,D1(B1),I2
P_EB55 TEST_OP SIY,CLIY,D1(B1),I2

P_EB56 TEST_OP SIY,OIY,D1(B1),I2
P_EB57 TEST_OP SIY,XIY,D1(B1),I2
P_EB6A TEST_OP SIY,ASI,D1(B1),I2
P_EB6E TEST_OP SIY,ALSI,D1(B1),I2
P_EB7A TEST_OP SIY,AGSI,D1(B1),I2
P_EB7E TEST_OP SIY,ALGSI,D1(B1),I2
P_EB80 TEST_OP RSY,ICMH,R1,M3,D2(B2)
P_EB81 TEST_OP RSY,ICMY,R1,M3,D2(B2)
P_EB8E TEST_OP RSY,MVCLU,R1,R3,D2(B2)
P_EB8F TEST_OP RSY,CLCLU,R1,R3,D2(B2)
P_EB90 TEST_OP RSY,STMY,R1,R3,D2(B2)
P_EB96 TEST_OP RSY,LMH,R1,R3,D2(B2)
P_EB98 TEST_OP RSY,LMY,R1,R3,D2(B2)
P_EB9A TEST_OP RSY,LAMY,R1,R3,D2(B2)
P_EB9B TEST_OP RSY,STAMY,R1,R3,D2(B2)
P_EBC0 TEST_OP RSL,TP,D1(LP1,B1)
P_EBDC TEST_OP RSY,SRAK,R1,R3,D2(B2)
P_EBDD TEST_OP RSY,SLAK,R1,R3,D2(B2)
P_EBDE TEST_OP RSY,SRLK,R1,R3,D2(B2)
P_EBDF TEST_OP RSY,SLLK,R1,R3,D2(B2)
P_EBE0 TEST_OP RSY,LOCFH,R1,D2(B2),M3 Z15?
P_EBE01 TEST_OP RSY,LOCFHO,R1,D2(B2) Z15
P_EBE02 TEST_OP RSY,LOCFHH,R1,D2(B2) Z15
P_EBE02 TEST_OP RSY,LOCFHP,R1,D2(B2) Z15
P_EBE04 TEST_OP RSY,LOCFHL,R1,D2(B2) Z15
P_EBE04 TEST_OP RSY,LOCFHM,R1,D2(B2) Z15
P_EBE07 TEST_OP RSY,LOCFHNE,R1,D2(B2) Z15
P_EBE07 TEST_OP RSY,LOCFHNZ,R1,D2(B2) Z15
P_EBE08 TEST_OP RSY,LOCFHE,R1,D2(B2) Z15
P_EBE08 TEST_OP RSY,LOCFHZ,R1,D2(B2) Z15
P_EBE0B TEST_OP RSY,LOCFHNL,R1,D2(B2) Z15
P_EBE0B TEST_OP RSY,LOCFHNMR1,D2(B2) Z15
P_EBE0D TEST_OP RSY,LOCFHNH,R1,D2(B2) Z15
P_EBE0D TEST_OP RSY,LOCFHNP,R1,D2(B2) Z15
P_EBE0E TEST_OP RSY,LOCFHNO,R1,D2(B2) Z15
P_EBE1 TEST_OP RSY,STOCFH,R1,D2(B2),M3 Z15?
P_EBE11 TEST_OP RSY,STOCFHO,R1,D2(B2) Z15
P_EBE12 TEST_OP RSY,STOCFHH,R1,D2(B2) Z15
P_EBE12 TEST_OP RSY,STOCFHP,R1,D2(B2) Z15
P_EBE14 TEST_OP RSY,STOCFHL,R1,D2(B2) Z15
P_EBE14 TEST_OP RSY,STOCFHM,R1,D2(B2) Z15

P_EBE17 TEST_OP RSY,STOCFHNE,R1,D2(B2) Z15
P_EBE17 TEST_OP RSY,STOCFHNZ,R1,D2(B2) Z15
P_EBE18 TEST_OP RSY,STOCFHE,R1,D2(B2) Z15
P_EBE18 TEST_OP RSY,STOCFHZ,R1,D2(B2) Z15
P_EBE1B TEST_OP RSY,STOCFHNL,R1,D2(B2) Z15
P_EBE1B TEST_OP RSY,STOCFHNM,R1,D2(B2) Z15
P_EBE1D TEST_OP RSY,STOCFHNH,R1,D2(B2) Z15
P_EBE1D TEST_OP RSY,STOCFHNP,R1,D2(B2) Z15
P_EBE1E TEST_OP RSY,STOCFHNO,R1,D2(B2) Z15
P_EBE2 TEST_OP RSY,LOCG,R1,D2(B2),M3
P_EBE21 TEST_OP RSY,LOCGO,R1,D2(B2) Z15
P_EBE22 TEST_OP RSY,LOCGH,R1,D2(B2) Z15
P_EBE22 TEST_OP RSY,LOCGP,R1,D2(B2) Z15
P_EBE24 TEST_OP RSY,LOCGL,R1,D2(B2) Z15
P_EBE24 TEST_OP RSY,LOCGM,R1,D2(B2) Z15
P_EBE27 TEST_OP RSY,LOCgne,R1,D2(B2) Z15
P_EBE27 TEST_OP RSY,LOCgnz,R1,D2(B2) Z15
P_EBE28 TEST_OP RSY,LOCge,R1,D2(B2) Z15
P_EBE28 TEST_OP RSY,LOCgz,R1,D2(B2) Z15
P_EBE2B TEST_OP RSY,LOCgnl,R1,D2(B2) Z15
P_EBE2B TEST_OP RSY,LOCgnm,R1,D2(B2) Z15
P_EBE2D TEST_OP RSY,LOCgnh,R1,D2(B2) Z15
P_EBE2D TEST_OP RSY,LOCgnp,R1,D2(B2) Z15
P_EBE2E TEST_OP RSY,LOCgno,R1,D2(B2) Z15
P_EBE3 TEST_OP RSY,STOCG,R1,D2(B2),M3
P_EBE31 TEST_OP RSY,STOCGO,R1,D2(B2) Z15
P_EBE32 TEST_OP RSY,STOCGH,R1,D2(B2) Z15
P_EBE32 TEST_OP RSY,STOCGP,R1,D2(B2) Z15
P_EBE34 TEST_OP RSY,STOCGL,R1,D2(B2) Z15
P_EBE34 TEST_OP RSY,STOCGM,R1,D2(B2) Z15
P_EBE37 TEST_OP RSY,STOCgne,R1,D2(B2) Z15
P_EBE37 TEST_OP RSY,STOCgnz,R1,D2(B2) Z15
P_EBE38 TEST_OP RSY,STOCge,R1,D2(B2) Z15
P_EBE38 TEST_OP RSY,STOCgz,R1,D2(B2) Z15
P_EBE3B TEST_OP RSY,STOCgnl,R1,D2(B2) Z15
P_EBE3B TEST_OP RSY,STOCgnm,R1,D2(B2) Z15
P_EBE3D TEST_OP RSY,STOCgnh,R1,D2(B2) Z15
P_EBE3D TEST_OP RSY,STOCgnp,R1,D2(B2) Z15
P_EBE3E TEST_OP RSY,STOCgno,R1,D2(B2) Z15
P_EBE4 TEST_OP RSY,LANG,R1,R3,D2(B2)
P_EBE6 TEST_OP RSY,LAOG,R1,R3,D2(B2)

P_EBE7 TEST_OP RSY,LAXG,R1,R3,D2(B2)
P_EBE8 TEST_OP RSY,LAAG,R1,R3,D2(B2)
P_EBEA TEST_OP RSY,LAALG,R1,R3,D2(B2)
P_EBF2 TEST_OP RSY,LOC,R1,D2(B2),M3
P_EBF21 TEST_OP RSY,LOCO,R1,D2(B2) Z15
P_EBF22 TEST_OP RSY,LOCH,R1,D2(B2) Z15
P_EBF22 TEST_OP RSY,LOCOP,R1,D2(B2) Z15
P_EBF24 TEST_OP RSY,LOCL,R1,D2(B2) Z15
P_EBF24 TEST_OP RSY,LOCM,R1,D2(B2) Z15
P_EBF27 TEST_OP RSY,LOCNE,R1,D2(B2) Z15
P_EBF27 TEST_OP RSY,LOCNZ,R1,D2(B2) Z15
P_EBF28 TEST_OP RSY,LOCE,R1,D2(B2) Z15
P_EBF28 TEST_OP RSY,LOCZ,R1,D2(B2) Z15
P_EBF2B TEST_OP RSY,LOCNL,R1,D2(B2) Z15
P_EBF2B TEST_OP RSY,LOCNM,R1,D2(B2) Z15
P_EBF2D TEST_OP RSY,LOCNH,R1,D2(B2) Z15
P_EBF2D TEST_OP RSY,LOCNP,R1,D2(B2) Z15
P_EBF2E TEST_OP RSY,LOCNO,R1,D2(B2) Z15
P_EBF3 TEST_OP RSY,STOC,R1,D2(B2),M3
P_EBF31 TEST_OP RSY,STOCO,R1,D2(B2) Z15
P_EBF32 TEST_OP RSY,STOCH,R1,D2(B2) Z15
P_EBF32 TEST_OP RSY,STOCP,R1,D2(B2) Z15
P_EBF34 TEST_OP RSY,STOCL,R1,D2(B2) Z15
P_EBF34 TEST_OP RSY,STOCM,R1,D2(B2) Z15
P_EBF37 TEST_OP RSY,STOCNE,R1,D2(B2) Z15
P_EBF37 TEST_OP RSY,STOCNZ,R1,D2(B2) Z15
P_EBF38 TEST_OP RSY,STOCE,R1,D2(B2) Z15
P_EBF38 TEST_OP RSY,STOCZ,R1,D2(B2) Z15
P_EBF3B TEST_OP RSY,STOCNL,R1,D2(B2) Z15
P_EBF3B TEST_OP RSY,STOCNM,R1,D2(B2) Z15
P_EBF3D TEST_OP RSY,STOCNH,R1,D2(B2) Z15
P_EBF3D TEST_OP RSY,STOCNP,R1,D2(B2) Z15
P_EBF3E TEST_OP RSY,STOCNO,R1,D2(B2) Z15
P_EBF4 TEST_OP RSY,LAN,R1,R3,D2(B2)
P_EBF6 TEST_OP RSY,LAO,R1,R3,D2(B2)
P_EBF7 TEST_OP RSY,LAX,R1,R3,D2(B2)
P_EBF8 TEST_OP RSY,LAA,R1,R3,D2(B2)
P_EBFA TEST_OP RSY,LAAL,R1,R3,D2(B2)
P_EC42 TEST_OP RIE,LOCHI,R1,I2,M3 Z15?
P_EC421 TEST_OP RIE,LOCHIO,R1,I2 Z15
P_EC422 TEST_OP RIE,LOCHIH,R1,I2 Z15

P_EC422 TEST_OP RIE,LOCHIP,R1,I2 Z15
P_EC424 TEST_OP RIE,LOCHIL,R1,I2 Z15
P_EC424 TEST_OP RIE,LOCHIM,R1,I2 Z15
P_EC427 TEST_OP RIE,LOCHINE,R1,I2 Z15
P_EC427 TEST_OP RIE,LOCHINZ,R1,I2 Z15
P_EC428 TEST_OP RIE,LOCHIE,R1,I2 Z15
P_EC428 TEST_OP RIE,LOCHIZ,R1,I2 Z15
P_EC42B TEST_OP RIE,LOCHINL,R1,I2 Z15
P_EC42B TEST_OP RIE,LOCHINM,R1,I2 Z15
P_EC42D TEST_OP RIE,LOCHINH,R1,I2 Z15
P_EC42D TEST_OP RIE,LOCHINP,R1,I2 Z15
P_EC42E TEST_OP RIE,LOCHINO,R1,I2 Z15
P_EC44 TEST_OP RIE,BRXHG,R1,R3,I2
P_EC44 TEST_OP RIE,JXHG,R1,R3,I2
P_EC45 TEST_OP RIE,BRXLG,R1,R3,I2
P_EC45 TEST_OP RIE,JXLEG,R1,R3,I2
P_EC46 TEST_OP RIE,LOCGHI,R1,I2,M3 Z15?
P_EC461 TEST_OP RIE,LOCGHO,R1,I2 Z15
P_EC462 TEST_OP RIE,LOCGHIH,R1,I2 Z15
P_EC462 TEST_OP RIE,LOCGHIP,R1,I2 Z15
P_EC464 TEST_OP RIE,LOCGHIL,R1,I2 Z15
P_EC464 TEST_OP RIE,LOCGHIM,R1,I2 Z15
P_EC467 TEST_OP RIE,LOCGHINE,R1,I2 Z15
P_EC467 TEST_OP RIE,LOCGHINZ,R1,I2 Z15
P_EC468 TEST_OP RIE,LOCGHIE,R1,I2 Z15
P_EC468 TEST_OP RIE,LOCGHIZ,R1,I2 Z15
P_EC46B TEST_OP RIE,LOCGHINL,R1,I2 Z15
P_EC46B TEST_OP RIE,LOCGHINM,R1,I2 Z15
P_EC46D TEST_OP RIE,LOCGHINH,R1,I2 Z15
P_EC46D TEST_OP RIE,LOCGHINP,R1,I2 Z15
P_EC46E TEST_OP RIE,LOCGHINO,R1,I2 Z15
P_EC4E TEST_OP RIE,LOCHHI,R1,I2,M3 Z15?
P_EC4E1 TEST_OP RIE,LOCHHO,R1,I2 Z15
P_EC4E2 TEST_OP RIE,LOCHHIH,R1,I2 Z15
P_EC4E2 TEST_OP RIE,LOCHHIP,R1,I2 Z15
P_EC4E4 TEST_OP RIE,LOCHHIL,R1,I2 Z15
P_EC4E4 TEST_OP RIE,LOCHHIM,R1,I2 Z15
P_EC4E7 TEST_OP RIE,LOCHHINE,R1,I2 Z15
P_EC4E7 TEST_OP RIE,LOCHHINZ,R1,I2 Z15
P_EC4E8 TEST_OP RIE,LOCHHIE,R1,I2 Z15
P_EC4E8 TEST_OP RIE,LOCHHIZ,R1,I2 Z15

P_EC4EB TEST_OP RIE,LOCHHINL,R1,I2 Z15
P_EC4EB TEST_OP RIE,LOCHHINM,R1,I2 Z15
P_EC4ED TEST_OP RIE,LOCHHINH,R1,I2 Z15
P_EC4ED TEST_OP RIE,LOCHHINP,R1,I2 Z15
P_EC4EE TEST_OP RIE,LOCHHINO,R1,I2 Z15
P_EC51 TEST_OP RIE,LLCLHR,R1,R2,I345=(24,31+X'80',32)
P_EC51 TEST_OP RIE,LLHFR,R1,R2,I345=(0,31+X'80',32)
P_EC51 TEST_OP RIE,LLHLHR,R1,R2,I345=(16,31+X'80',32)
P_EC51_P4 TEST_OP RIE,RISBLG,R1,R2,I3,I4
P_EC51_P4 TEST_OP RIE,RISBLGZ,R1,R2,I3,I4
P_EC51_P5 TEST_OP RIE,RISBLG,R1,R2,I3,I4,I5
P_EC51_P5 TEST_OP RIE,RISBLGZ,R1,R2,I3,I4,I5
P_EC54 TEST_OP RIE,NHHR,R1,R2,I345=(0,31,0)
P_EC54 TEST_OP RIE,NHLR,R1,R2,I345=(0,31,32)
P_EC54 TEST_OP RIE,NLHR,R1,R2,I345=(32,63,32)
P_EC54_P4 TEST_OP RIE,RNSBG,R1,R2,I3,I4
P_EC54_P4 TEST_OP RIE,RNSBGT,R1,R2,I3,I4
P_EC54_P5 TEST_OP RIE,RNSBG,R1,R2,I3,I4,I5
P_EC54_P5 TEST_OP RIE,RNSBGT,R1,R2,I3,I4,I5
P_EC55_P4 TEST_OP RIE,RISBG,R1,R2,I3,I4
P_EC55_P5 TEST_OP RIE,RISBG,R1,R2,I3,I4,I5
P_EC55_P5 TEST_OP RIE,RISBGZ,R1,R2,I3,I4,I5
P_EC56 TEST_OP RIE,OHHR,R1,R2,I345=(0,31,0)
P_EC56 TEST_OP RIE,OHLR,R1,R2,I345=(0,31,32)
P_EC56 TEST_OP RIE,OLHR,R1,R2,I345=(32,63,32)
P_EC56_P4 TEST_OP RIE,ROSBG,R1,R2,I3,I4
P_EC56_P4 TEST_OP RIE,ROSBGT,R1,R2,I3,I4
P_EC56_P5 TEST_OP RIE,ROSBG,R1,R2,I3,I4,I5
P_EC56_P5 TEST_OP RIE,ROSBGT,R1,R2,I3,I4,I5
P_EC57 TEST_OP RIE,XHHR,R1,R2,I345=(0,31,0)
P_EC57 TEST_OP RIE,XHLR,R1,R2,I345=(0,31,32)
P_EC57 TEST_OP RIE,XLHR,R1,R2,I345=(32,63,32)
P_EC57_P4 TEST_OP RIE,RXSBG,R1,R2,I3,I4
P_EC57_P4 TEST_OP RIE,RXSBGT,R1,R2,I3,I4
P_EC57_P5 TEST_OP RIE,RXSBG,R1,R2,I3,I4,I5
P_EC57_P5 TEST_OP RIE,RXSBGT,R1,R2,I3,I4,I5
P_EC59_P5 TEST_OP RIE,RISBGN,R1,R2,I3,I4,I5 Z15?
P_EC59_P4 TEST_OP RIE,RISBGN,R1,R2,I3,I4
P_EC59_P5 TEST_OP RIE,RISBGNZ,R1,R2,I3,I4,I5
P_EC5D TEST_OP RIE,LHHR,R1,R2,I345=(0,31+X'80',0)
P_EC5D TEST_OP RIE,LHLR,R1,R2,I345=(0,31+X'80',32)

P_EC5D TEST_OP RIE,LLCHHR,R1,R2,I345=(24,31+X'80',0)
P_EC5D TEST_OP RIE,LLCHLR,R1,R2,I345=(24,31+X'80',32)
P_EC5D TEST_OP RIE,LLHHHR,R1,R2,I345=(16,31+X'80',0)
P_EC5D TEST_OP RIE,LLHHLR,R1,R2,I345=(16,31+X'80',32)
P_EC5D_P4 TEST_OP RIE,RISBHG,R1,R2,I3,I4
P_EC5D_P4 TEST_OP RIE,RISBHGZ,R1,R2,I3,I4
P_EC5D_P5 TEST_OP RIE,RISBHG,R1,R2,I3,I4,I5
P_EC5D_P5 TEST_OP RIE,RISBHGZ,R1,R2,I3,I4,I5
P_EC64 TEST_OP RIE,CGRJ,R1,R2,M3,I4
P_EC642 TEST_OP RIE,CGRJH,R1,R2,I4
P_EC644 TEST_OP RIE,CGRJL,R1,R2,I4
P_EC646 TEST_OP RIE,CGRJNE,R1,R2,I4
P_EC648 TEST_OP RIE,CGRJE,R1,R2,I4
P_EC64A TEST_OP RIE,CGRJNL,R1,R2,I4
P_EC64C TEST_OP RIE,CGRJNH,R1,R2,I4
P_EC65 TEST_OP RIE,CLGRJ,R1,R2,M3,I4
P_EC652 TEST_OP RIE,CLGRJH,R1,R2,I4
P_EC654 TEST_OP RIE,CLGRJL,R1,R2,I4
P_EC656 TEST_OP RIE,CLGRJNE,R1,R2,I4
P_EC658 TEST_OP RIE,CLGRJE,R1,R2,I4
P_EC65A TEST_OP RIE,CLGRJNL,R1,R2,I4
P_EC65C TEST_OP RIE,CLGRJNH,R1,R2,I4
P_EC70 TEST_OP RIE,CGIT,R1,I2,M3
P_EC702 TEST_OP RIE,CGITH,R1,I2
P_EC704 TEST_OP RIE,CGITL,R1,I2
P_EC706 TEST_OP RIE,CGITNE,R1,I2
P_EC708 TEST_OP RIE,CGITE,R1,I2
P_EC70A TEST_OP RIE,CGITNL,R1,I2
P_EC70C TEST_OP RIE,CGITNH,R1,I2
P_EC71 TEST_OP RIE,CLGIT,R1,I2,M3
P_EC712 TEST_OP RIE,CLGITH,R1,I2
P_EC714 TEST_OP RIE,CLGITL,R1,I2
P_EC716 TEST_OP RIE,CLGITNE,R1,I2
P_EC718 TEST_OP RIE,CLGITE,R1,I2
P_EC71A TEST_OP RIE,CLGITNL,R1,I2
P_EC71C TEST_OP RIE,CLGITNH,R1,I2
P_EC72 TEST_OP RIE,CIT,R1,I2,M3
P_EC722 TEST_OP RIE,CITH,R1,I2
P_EC724 TEST_OP RIE,CITL,R1,I2
P_EC726 TEST_OP RIE,CITNE,R1,I2
P_EC728 TEST_OP RIE,CITE,R1,I2

P_EC72A TEST_OP RIE,CITNL,R1,I2
P_EC72C TEST_OP RIE,CITNH,R1,I2
P_EC73 TEST_OP RIE,CLFIT,R1,I2,M3
P_EC732 TEST_OP RIE,CLFITH,R1,I2
P_EC734 TEST_OP RIE,CLFITL,R1,I2
P_EC736 TEST_OP RIE,CLFITNE,R1,I2
P_EC738 TEST_OP RIE,CLFITE,R1,I2
P_EC73A TEST_OP RIE,CLFITNL,R1,I2
P_EC73C TEST_OP RIE,CLFITNH,R1,I2
P_EC76 TEST_OP RIE,CRJ,R1,R2,M3,I4
P_EC762 TEST_OP RIE,CRJH,R1,R2,I4
P_EC764 TEST_OP RIE,CRJL,R1,R2,I4
P_EC766 TEST_OP RIE,CRJNE,R1,R2,I4
P_EC768 TEST_OP RIE,CRJE,R1,R2,I4
P_EC76A TEST_OP RIE,CRJNL,R1,R2,I4
P_EC76C TEST_OP RIE,CRJNH,R1,R2,I4
P_EC77 TEST_OP RIE,CLRJ,R1,R2,M3,I4
P_EC772 TEST_OP RIE,CLRJH,R1,R2,I4
P_EC774 TEST_OP RIE,CLRJL,R1,R2,I4
P_EC776 TEST_OP RIE,CLRJNE,R1,R2,I4
P_EC778 TEST_OP RIE,CLRJE,R1,R2,I4
P_EC77A TEST_OP RIE,CLRJNL,R1,R2,I4
P_EC77C TEST_OP RIE,CLRJNH,R1,R2,I4
P_EC7C TEST_OP RIE,CGIJ,R1,I2,M3,I4
P_EC7C2 TEST_OP RIE,CGIJH,R1,I2,I4
P_EC7C4 TEST_OP RIE,CGIJL,R1,I2,I4
P_EC7C6 TEST_OP RIE,CGIJNE,R1,I2,I4
P_EC7C8 TEST_OP RIE,CGIJE,R1,I2,I4
P_EC7CA TEST_OP RIE,CGIJNL,R1,I2,I4
P_EC7CC TEST_OP RIE,CGIJNH,R1,I2,I4
P_EC7D TEST_OP RIE,CLGIJ,R1,I2,M3,I4
P_EC7D2 TEST_OP RIE,CLGIJH,R1,I2,I4
P_EC7D4 TEST_OP RIE,CLGIJL,R1,I2,I4
P_EC7D6 TEST_OP RIE,CLGIJNE,R1,I2,I4
P_EC7D8 TEST_OP RIE,CLGIJE,R1,I2,I4
P_EC7DA TEST_OP RIE,CLGIJNL,R1,I2,I4
P_EC7DC TEST_OP RIE,CLGIJNH,R1,I2,I4
P_EC7E TEST_OP RIE,CIJ,R1,I2,M3,I4
P_EC7E2 TEST_OP RIE,CIJH,R1,I2,I4
P_EC7E4 TEST_OP RIE,CIJL,R1,I2,I4
P_EC7E6 TEST_OP RIE,CIJNE,R1,I2,I4

P_EC7E8 TEST_OP RIE,CIJE,R1,I2,I4
P_EC7EA TEST_OP RIE,CIJNL,R1,I2,I4
P_EC7EC TEST_OP RIE,CIJNH,R1,I2,I4
P_EC7F TEST_OP RIE,CLIJ,R1,I2,M3,I4
P_EC7F2 TEST_OP RIE,CLIJH,R1,I2,I4
P_EC7F4 TEST_OP RIE,CLIJL,R1,I2,I4
P_EC7F6 TEST_OP RIE,CLIJNE,R1,I2,I4
P_EC7F8 TEST_OP RIE,CLIJE,R1,I2,I4
P_EC7FA TEST_OP RIE,CLIJNL,R1,I2,I4
P_EC7FC TEST_OP RIE,CLIJNH,R1,I2,I4
P_ECD8 TEST_OP RIE,AHIK,R1,R3,I2
P_ECD9 TEST_OP RIE,AGHIK,R1,R3,I2
P_ECDA TEST_OP RIE,ALHSIK,R1,R3,I2
P_ECDB TEST_OP RIE,ALGHSIK,R1,R3,I2
P_ECE4 TEST_OP RRS,CGRB,R1,R2,M3,D4(B4)
P_ECE42 TEST_OP RRS,CGRBH,R1,R2,D4(B4)
P_ECE44 TEST_OP RRS,CGRBL,R1,R2,D4(B4)
P_ECE46 TEST_OP RRS,CGRBNE,R1,R2,D4(B4)
P_ECE48 TEST_OP RRS,CGRBE,R1,R2,D4(B4)
P_ECE4A TEST_OP RRS,CGRBNL,R1,R2,D4(B4)
P_ECE4C TEST_OP RRS,CGRBNH,R1,R2,D4(B4)
P_ECE5 TEST_OP RRS,CLGRB,R1,R2,M3,D4(B4)
P_ECE52 TEST_OP RRS,CLGRBH,R1,R2,D4(B4)
P_ECE54 TEST_OP RRS,CLGRBL,R1,R2,D4(B4)
P_ECE56 TEST_OP RRS,CLGRBNE,R1,R2,D4(B4)
P_ECE58 TEST_OP RRS,CLGRBE,R1,R2,D4(B4)
P_ECE5A TEST_OP RRS,CLGRBNL,R1,R2,D4(B4)
P_ECE5C TEST_OP RRS,CLGRBNH,R1,R2,D4(B4)
P_ECF6 TEST_OP RRS,CRB,R1,R2,M3,D4(B4)
P_ECF62 TEST_OP RRS,CRBH,R1,R2,D4(B4)
P_ECF64 TEST_OP RRS,CRBL,R1,R2,D4(B4)
P_ECF66 TEST_OP RRS,CRBNE,R1,R2,D4(B4)
P_ECF68 TEST_OP RRS,CRBE,R1,R2,D4(B4)
P_ECF6A TEST_OP RRS,CRBNL,R1,R2,D4(B4)
P_ECF6C TEST_OP RRS,CRBNH,R1,R2,D4(B4)
P_ECF7 TEST_OP RRS,CLRB,R1,R2,M3,D4(B4)
P_ECF72 TEST_OP RRS,CLRBH,R1,R2,D4(B4)
P_ECF74 TEST_OP RRS,CLRBL,R1,R2,D4(B4)
P_ECF76 TEST_OP RRS,CLRBNE,R1,R2,D4(B4)
P_ECF78 TEST_OP RRS,CLRBE,R1,R2,D4(B4)
P_ECF7A TEST_OP RRS,CLRBNL,R1,R2,D4(B4)

P_ECF7C TEST_OP RRS,CLRBNH,R1,I2,D4(B4)
P_EFCF TEST_OP RIS,CGIB,R1,I2,M3,D4(B4)
P_EFCF2 TEST_OP RIS,CGIBH,R1,I2,D4(B4)
P_EFCF4 TEST_OP RIS,CGIBL,R1,I2,D4(B4)
P_EFCF6 TEST_OP RIS,CGIBNE,R1,I2,D4(B4)
P_EFCF8 TEST_OP RIS,CGIBE,R1,I2,D4(B4)
P_ECFCA TEST_OP RIS,CGIBNL,R1,I2,D4(B4)
P_ECFCC TEST_OP RIS,CGIBNH,R1,I2,D4(B4)
P_ECFD TEST_OP RIS,CLGIB,R1,I2,M3,D4(B4)
P_ECFD2 TEST_OP RIS,CLGIBH,R1,I2,D4(B4)
P_ECFD4 TEST_OP RIS,CLGIBL,R1,I2,D4(B4)
P_ECFD6 TEST_OP RIS,CLGIBNE,R1,I2,D4(B4)
P_ECFD8 TEST_OP RIS,CLGIBE,R1,I2,D4(B4)
P_ECFDA TEST_OP RIS,CLGIBNL,R1,I2,D4(B4)
P_ECFDC TEST_OP RIS,CLGIBNH,R1,I2,D4(B4)
P_ECFE TEST_OP RIS,CIB,R1,I2,M3,D4(B4)
P_ECFE2 TEST_OP RIS,CIBH,R1,I2,D4(B4)
P_ECFE4 TEST_OP RIS,CIBL,R1,I2,D4(B4)
P_ECFE6 TEST_OP RIS,CIBNE,R1,I2,D4(B4)
P_ECFE8 TEST_OP RIS,CIBE,R1,I2,D4(B4)
P_ECFEA TEST_OP RIS,CIBNL,R1,I2,D4(B4)
P_ECFEC TEST_OP RIS,CIBNH,R1,I2,D4(B4)
P_Ecff TEST_OP RIS,CLIB,R1,I2,M3,D4(B4)
P_Ecff2 TEST_OP RIS,CLIBH,R1,I2,D4(B4)
P_Ecff4 TEST_OP RIS,CLIBL,R1,I2,D4(B4)
P_Ecff6 TEST_OP RIS,CLIBNE,R1,I2,D4(B4)
P_Ecff8 TEST_OP RIS,CLIBE,R1,I2,D4(B4)
P_Ecffa TEST_OP RIS,CLIBNL,R1,I2,D4(B4)
P_Ecffc TEST_OP RIS,CLIBNH,R1,I2,D4(B4)
P_ED04 TEST_OP RXE,LDEB,R1,D2(X2,B2)
P_ED05 TEST_OP RXE,LXDB,R1,D2(X2,B2)
P_ED06 TEST_OP RXE,Lxeb,R1,D2(X2,B2)
P_ED07 TEST_OP RXE,Mxdb,R1,D2(X2,B2)
P_ED08 TEST_OP RXE,KEB,R1,D2(X2,B2)
P_ED09 TEST_OP RXE,CEB,R1,D2(X2,B2)
P_ED0A TEST_OP RXE,AEB,R1,D2(X2,B2)
P_ED0B TEST_OP RXE,SEB,R1,D2(X2,B2)
P_ED0C TEST_OP RXE,Mdeb,R1,D2(X2,B2)
P_ED0D TEST_OP RXE,DEB,R1,D2(X2,B2)
P_ED0E TEST_OP RXF,MAEB,R1,R3,D2(X2,B2)
P_ED0F TEST_OP RXF,Mseb,R1,R3,D2(X2,B2)

P_ED10 TEST_OP RXE,TCEB,R1,D2(X2,B2)
P_ED11 TEST_OP RXE,TCDB,R1,D2(X2,B2)
P_ED12 TEST_OP RXE,TCXB,R1,D2(X2,B2)
P_ED14 TEST_OP RXE,SQEB,R1,D2(X2,B2)
P_ED15 TEST_OP RXE,SQDB,R1,D2(X2,B2)
P_ED17 TEST_OP RXE,MEEB,R1,D2(X2,B2)
P_ED18 TEST_OP RXE,KDB,R1,D2(X2,B2)
P_ED19 TEST_OP RXE,CDB,R1,D2(X2,B2)
P_ED1A TEST_OP RXE,ADB,R1,D2(X2,B2)
P_ED1B TEST_OP RXE,SDB,R1,D2(X2,B2)
P_ED1C TEST_OP RXE,MDB,R1,D2(X2,B2)
P_ED1D TEST_OP RXE,DDB,R1,D2(X2,B2)
P_ED1E TEST_OP RXF,MADB,R1,R3,D2(X2,B2)
P_ED1F TEST_OP RXF,MSDB,R1,R3,D2(X2,B2)
P_ED24 TEST_OP RXE,LDE,R1,D2(X2,B2)
P_ED25 TEST_OP RXE,LXD,R1,D2(X2,B2)
P_ED26 TEST_OP RXE,LXE,R1,D2(X2,B2)
P_ED2E TEST_OP RXF,MAE,R1,R3,D2(X2,B2)
P_ED2F TEST_OP RXF,MSE,R1,R3,D2(X2,B2)
P_ED34 TEST_OP RXE,SQE,R1,D2(X2,B2)
P_ED35 TEST_OP RXE,SQD,R1,D2(X2,B2)
P_ED37 TEST_OP RXE,MEE,R1,D2(X2,B2)
P_ED38 TEST_OP RXF,MAYL,R1,R3,D2(X2,B2)
P_ED39 TEST_OP RXF,MYL,R1,R3,D2(X2,B2)
P_ED3A TEST_OP RXF,MAY,R1,R3,D2(X2,B2)
P_ED3B TEST_OP RXF,MY,R1,R3,D2(X2,B2)
P_ED3C TEST_OP RXF,MAYH,R1,R3,D2(X2,B2)
P_ED3D TEST_OP RXF,MYH,R1,R3,D2(X2,B2)
P_ED3E TEST_OP RXF,MAD,R1,R3,D2(X2,B2)
P_ED3F TEST_OP RXF,MSD,R1,R3,D2(X2,B2)
P_ED40 TEST_OP RXF,SLDT,R1,R3,D2(X2,B2)
P_ED41 TEST_OP RXF,SRDT,R1,R3,D2(X2,B2)
P_ED48 TEST_OP RXF,SLXT,R1,R3,D2(X2,B2)
P_ED49 TEST_OP RXF,SRXT,R1,R3,D2(X2,B2)
P_ED50 TEST_OP RXE,TDCET,R1,D2(X2,B2)
P_ED51 TEST_OP RXE,TDGET,R1,D2(X2,B2)
P_ED54 TEST_OP RXE,TDCDT,R1,D2(X2,B2)
P_ED55 TEST_OP RXE,TDGDT,R1,D2(X2,B2)
P_ED58 TEST_OP RXE,TDCXT,R1,D2(X2,B2)
P_ED59 TEST_OP RXE,TDGXT,R1,D2(X2,B2)
P_ED64 TEST_OP RXY,LEY,R1,D2(X2,B2)

P_ED65 TEST_OP RXY,LDY,R1,D2(X2,B2)
P_ED66 TEST_OP RXY,STEY,R1,D2(X2,B2)
P_ED67 TEST_OP RXY,STDY,R1,D2(X2,B2)
P_EDA8 TEST_OP RSL,CZDT,R1,D2(L2,B2),M3 Z15?
P_EDA9 TEST_OP RSL,CZXT,R1,D2(L2,B2),M3 Z15?
P_EDAA TEST_OP RSL,CDZT,R1,D2(L2,B2),M3 Z15?
P_EDAB TEST_OP RSL,CXZT,R1,D2(L2,B2),M3 Z15?
P_EDAC TEST_OP RSL,CPDT,R1,D2(L2,B2),M3 Z15?
P_EDAD TEST_OP RSL,CPXT,R1,D2(L2,B2),M3 Z15?
P_EDAE TEST_OP RSL,CDPT,R1,D2(L2,B2),M3 Z15?
P_EDAF TEST_OP RSL,CXPT,R1,D2(L2,B2),M3 Z15?
P_EE TEST_OP SS,PLO,R1,D2(B2),R3,D4(B4)
P_EF TEST_OP SS,LMD,R1,R3,D2(B2),D4(B4)
P_F0 TEST_OP SS,SRP,D1(LP1,B1),D2(B2),I3
P_F1 TEST_OP SS,MVO,D1(LP1,B1),D2(LP2,B2)
P_F2 TEST_OP SS,PACK,D1(LP1,B1),D2(LP2,B2)
P_F3 TEST_OP SS,UNPK,D1(LP1,B1),D2(LP2,B2)
P_F8 TEST_OP SS,ZAP,D1(LP1,B1),D2(LP2,B2)
P_F9 TEST_OP SS,CP,D1(LP1,B1),D2(LP2,B2)
P_FA TEST_OP SS,AP,D1(LP1,B1),D2(LP2,B2)
P_FB TEST_OP SS,SP,D1(LP1,B1),D2(LP2,B2)
P_FC TEST_OP SS,MP,D1(LP1,B1),D2(LP2,B2)
P_FD TEST_OP SS,DP,D1(LP1,B1),D2(LP2,B2)