

## ZOPCHECK Program to Verify z390 Portable Mainframe Assembler Opcodes V1.2

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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 121 lines of code
2. ZOPMACRO.CPY – 41 structured macros with 1604 lines of code
3. ZOPCODES.CPY – 2358 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](http://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, SORTL, or STCCTM.

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 47BEC0C0    (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 47BEC0C0    (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 FFFFFFFFFFFFFFFF 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 C0C0    000C0 1223 BC_P_47 BC M1,D2(X2,B2)
?000EC4          00EC4 00ED0 1224 P_47_BC ORG BC_P_47+16
?000ED0 47BEC0C0    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 2<sup>nd</sup> 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.asma400/asmr1021108.htm](https://www.ibm.com/support/knowledgecenter/SSLTBW_2.1.0/com.ibm.zos.v2r1.asma400/asmr1021108.htm) IBM Branching with Extended Mnemonic Codes
5. <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> DFSORT User Guide IBM Integrated Accelerator for Z Sort (PH03207)
7. <https://www.ibm.com/support/pages/apar/PH30740> IBM APAR PH30740 adds support for 28 RIL 32 bit relocatable immediate fields.

## Appendix 1: Release Notes

### Version V1.2

- The additional instruction `STCCTM` was added for storing CPU counters as part of machine measurement feature.
- Instructions `BPP` and `BPRP` were corrected to support immediate relative addresses.
- Test and verify all 167 immediate relative address operands using format `*+R2`, `*+R3`. etc. Note some of these fields are 12, 16, 24, and 32 bits.
- Correct vector instruction `RXB` field for following instructions: `VCP`, `VLRLR`, and `VSTRLR`.
- Correct order and placement of `M4` and `M5` fields in following instructions: `VFTCI`, `VFMA`, `VFMS`, `VFNMA`, and `VFNMS`.

### 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`
  - `VFAEZF P_E782 TEST_OP VRR, VFAEZF, V1, V2, V3, M4`
  - `VFAEZF P_E782_P3 TEST_OP VRR, VFAEZF, 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 RPI 2225  
P\_84 TEST\_OP RSI,JXH,R1,R3,\*+I2 RPI 2225

P\_85 TEST\_OP RSI,BRXLE,R1,R3,\*+I2 RPI 2225

P\_85 TEST\_OP RSI,JXLE,R1,R3,\*+I2 RPI 2225

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,IHH,R1,I2

P\_A51 TEST\_OP RI,IHL,R1,I2

P\_A52 TEST\_OP RI,IILH,R1,I2

P\_A53 TEST\_OP RI,IILL,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,LLILH,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 RPI 2225  
P\_A74 TEST\_OP RI,JC,M1,\*+I2 RPI 2225  
P\_A740 TEST\_OP RI,JNOP,\*+I2 RPI 2225  
P\_A741 TEST\_OP RI,BRO,\*+I2 RPI 2225  
P\_A741 TEST\_OP RI,JO,\*+I2 RPI 2225  
P\_A742 TEST\_OP RI,BRH,\*+I2 RPI 2225  
P\_A742 TEST\_OP RI,BRP,\*+I2 RPI 2225  
P\_A742 TEST\_OP RI,JH,\*+I2 RPI 2225

P\_A742 TEST\_OP RI,JP,\*+I2 RPI 2225  
P\_A744 TEST\_OP RI,BRL,\*+I2 RPI 2225  
P\_A744 TEST\_OP RI,BRM,\*+I2 RPI 2225  
P\_A744 TEST\_OP RI,JL,\*+I2 RPI 2225  
P\_A744 TEST\_OP RI,JM,\*+I2 RPI 2225  
P\_A747 TEST\_OP RI,BRNE,\*+I2 RPI 2225  
P\_A747 TEST\_OP RI,BRNZ,\*+I2 RPI 2225  
P\_A747 TEST\_OP RI,JNE,\*+I2 RPI 2225  
P\_A747 TEST\_OP RI,JNZ,\*+I2 RPI 2225  
P\_A748 TEST\_OP RI,BRE,\*+I2 RPI 2225  
P\_A748 TEST\_OP RI,BRZ,\*+I2 RPI 2225  
P\_A748 TEST\_OP RI,JE,\*+I2 RPI 2225  
P\_A748 TEST\_OP RI,JZ,\*+I2 RPI 2225  
P\_A74B TEST\_OP RI,BRNL,\*+I2 RPI 2225  
P\_A74B TEST\_OP RI,BRNM,\*+I2 RPI 2225  
P\_A74B TEST\_OP RI,JNL,\*+I2 RPI 2225  
P\_A74B TEST\_OP RI,JNM,\*+I2 RPI 2225  
P\_A74D TEST\_OP RI,BRNH,\*+I2 RPI 2225  
P\_A74D TEST\_OP RI,BRNP,\*+I2 RPI 2225  
P\_A74D TEST\_OP RI,JNH,\*+I2 RPI 2225  
P\_A74D TEST\_OP RI,JNP,\*+I2 RPI 2225  
P\_A74E TEST\_OP RI,BRNO,\*+I2 RPI 2225  
P\_A74E TEST\_OP RI,JNO,\*+I2 RPI 2225  
P\_A74F TEST\_OP RI,BRU,\*+I2 RPI 2225  
P\_A74F TEST\_OP RI,J,\*+I2 RPI 2225  
P\_A75 TEST\_OP RI,BRAS,R1,\*+I2 RPI 2225  
P\_A75 TEST\_OP RI,JAS,R1,\*+I2 RPI 2225



P\_A76 TEST\_OP RI,BRCT,R1,\*+I2 RPI 2225  
P\_A76 TEST\_OP RI,JCT,R1,\*+I2 RPI 2225  
P\_A77 TEST\_OP RI,BRCTG,R1,\*+I2 RPI 2225  
P\_A77 TEST\_OP RI,JCTG,R1,\*+I2 RPI 2225  
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,D2(B2) RPI 2221  
P\_B284 TEST\_OP S,LCCTL,D2(B2) RPI 2221  
P\_B285 TEST\_OP S,LPCTL,D2(B2) RPI 2221  
P\_B286 TEST\_OP S,QSI,D2(B2) RPI 2221  
P\_B287 TEST\_OP S,LSCTL,D2(B2) RPI 2221  
P\_B28E TEST\_OP S,QCTRI,D2(B2) 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,LXEBR,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,MAEBR,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,LCDBR,R1,R2  
P\_B314 TEST\_OP RRE,SQEBR,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,CXFBRA,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,CGXBR,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,DXTRA,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,OCGRK,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,CRTH,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,CLRTH,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,OCRK,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,EP SW,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,ALHHLR,R1,R2,R3  
P\_B9DB TEST\_OP RRR,SLHHLR,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,LOGGRE,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,I2RLD

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,I2RLD  
P\_C07 TEST\_OP RIL,XILF,R1,I2RLD  
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,I2RLD  
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,I2RLD  
P\_C0A TEST\_OP RIL,NIHF,R1,I2RLD



P\_C0B TEST\_OP RIL,NILF,R1,I2RLD  
P\_C0B4 TEST\_OP RIL,BRNLL,\*+i2  
P\_C0B4 TEST\_OP RIL,BRNML,\*+i2  
P\_C0B4 TEST\_OP RIL,JLNL,\*+i2  
P\_C0B4 TEST\_OP RIL,JLNM,\*+i2  
P\_C0C TEST\_OP RIL,OIHF,R1,I2RLD  
P\_C0D TEST\_OP RIL,OILF,R1,I2RLD  
P\_C0D4 TEST\_OP RIL,BRNHL,\*+i2  
P\_C0D4 TEST\_OP RIL,BRNPL,\*+i2  
P\_C0D4 TEST\_OP RIL,JLNH,\*+i2  
P\_C0D4 TEST\_OP RIL,JLNP,\*+i2  
P\_C0E TEST\_OP RIL,LLIHF,R1,I2RLD  
P\_C0E4 TEST\_OP RIL,BRNOL,\*+i2  
P\_C0E4 TEST\_OP RIL,JLNO,\*+i2  
P\_C0F TEST\_OP RIL,LLILF,R1,I2RLD  
P\_C0F4 TEST\_OP RIL,BRUL,\*+i2  
P\_C0F4 TEST\_OP RIL,JLU,\*+i2  
P\_C20 TEST\_OP RIL,MSGFI,R1,I2RLD  
P\_C21 TEST\_OP RIL,MSFI,R1,I2RLD  
P\_C24 TEST\_OP RIL,SLGFI,R1,I2RLD  
P\_C25 TEST\_OP RIL,SLFI,R1,I2RLD  
P\_C28 TEST\_OP RIL,AGFI,R1,I2RLD  
P\_C29 TEST\_OP RIL,AFI,R1,I2RLD  
P\_C2A TEST\_OP RIL,ALGFI,R1,I2RLD  
P\_C2B TEST\_OP RIL,ALFI,R1,I2RLD  
P\_C2C TEST\_OP RIL,CGFI,R1,I2RLD  
P\_C2D TEST\_OP RIL,CFI,R1,I2RLD

P\_C2E TEST\_OP RIL,CLGFI,R1,I2RLD  
P\_C2F TEST\_OP RIL,CLFI,R1,I2RLD  
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,STRL,R1,\*+i2  
P\_C5 TEST\_OP MII,BPRP,M1,\*+i2,\*+i3 Z15?  
P\_C60 TEST\_OP RIL,EXRL,R1,\*+i2  
P\_C62 TEST\_OP RIL,PFDRM1,\*+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,\*+i2,D3(B3) Z15? RPI 2225

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,I2RLD  
P\_CCA TEST\_OP RIL,ALSIH,R1,I2RLD  
P\_CCB TEST\_OP RIL,ALSIHN,R1,I2RLD  
P\_CCD TEST\_OP RIL,CIH,R1,I2RLD  
P\_CCF TEST\_OP RIL,CLIH,R1,I2RLD  
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,PFM,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,STDRV,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,VLGVG,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,VL R,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,VESLVF,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,VFENEB,V1,V2,V3 Z15?  
P\_E7810\_P4 TEST\_OP VRR,VFENEB,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,VFAEZH,V1,V2,V3 Z15?  
P\_E78212\_P4 TEST\_OP VRR,VFAEZH,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,VSTRCZF,V1,V2,V3,V4 Z15  
P\_E78A22\_P5 TEST\_OP VRR,VSTRCZF,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,VFMSSB,V1,V2,V3,V4 Z15?

P\_E78E82 TEST\_OP VRR,WFMSB,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,VFNMSSB,V1,V2,V3,V4 Z15?  
P\_E79E03 TEST\_OP VRR,VFNMSDB,V1,V2,V3,V4 Z15?  
P\_E79E82 TEST\_OP VRR,WFNMSSB,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,VFNMASB,V1,V2,V3,V4 Z15?  
P\_E79F03 TEST\_OP VRR,VFNMADB,V1,V2,V3,V4 Z15?  
P\_E79F82 TEST\_OP VRR,WFNMASB,V1,V2,V3,V4 Z15?  
P\_E79F83 TEST\_OP VRR,WFNMADB,V1,V2,V3,V4 Z15?  
P\_E79F84 TEST\_OP VRR,WFNMAXB,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,VMAL,E,V1,V2,V3,M4,M5 Z15?  
P\_E7AC0 TEST\_OP VRR,VMAL,EB,V1,V2,V3,M5 Z15?  
P\_E7AC1 TEST\_OP VRR,VMAL,EH,V1,V2,V3,M5 Z15?  
P\_E7AC2 TEST\_OP VRR,VMAL,EF,V1,V2,V3,M5 Z15?  
P\_E7AD TEST\_OP VRR,VMAL,O,V1,V2,V3,M4,M5 Z15?  
P\_E7AD0 TEST\_OP VRR,VMAL,OB,V1,V2,V3,M5 Z15?  
P\_E7AD1 TEST\_OP VRR,VMAL,OH,V1,V2,V3,M5 Z15?  
P\_E7AD2 TEST\_OP VRR,VMAL,OF,V1,V2,V3,M5 Z15?  
P\_E7AE TEST\_OP VRR,VMAE,V1,V2,V3,M4,M5 Z15?  
P\_E7AE0 TEST\_OP VRR,VMAE,B,V1,V2,V3,M5 Z15?  
P\_E7AE1 TEST\_OP VRR,VMAE,H,V1,V2,V3,M5 Z15?  
P\_E7AE2 TEST\_OP VRR,VMAE,F,V1,V2,V3,M5 Z15?  
P\_E7AF TEST\_OP VRR,VMAO,V1,V2,V3,M4,M5 Z15?  
P\_E7AF0 TEST\_OP VRR,VMAO,B,V1,V2,V3,M5 Z15?  
P\_E7AF1 TEST\_OP VRR,VMAO,H,V1,V2,V3,M5 Z15?  
P\_E7AF2 TEST\_OP VRR,VMAO,F,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,VGFMA B,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,VGFMA G,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  
P\_E7C03 TEST\_OP VRR,VCLGDB,V1,V2,M4,M5 Z15  
P\_E7C02 TEST\_OP VRR,WCLFEB,V1,V2,M4,M5 Z15 ADDS 8 TO M4  
P\_E7C03 TEST\_OP VRR,WCLGDB,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,VUPL LH,V1,V2 Z15  
P\_E7D42 TEST\_OP VRR,VUPL LF,V1,V2 Z15  
P\_E7D5 TEST\_OP VRR,VUPL H,V1,V2,M3 Z15?  
P\_E7D50 TEST\_OP VRR,VUPL HB,V1,V2 Z15  
P\_E7D51 TEST\_OP VRR,VUPL HH,V1,V2 Z15  
P\_E7D52 TEST\_OP VRR,VUPL HF,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,VLPH,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,WFSDDB,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,WFXB,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,WFDDDB,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,VFCHEB,V1,V2,V3 Z15?  
P\_E7EA201 TEST\_OP VRR,VFCHEBS,V1,V2,V3 Z15?  
P\_E7EA300 TEST\_OP VRR,VFCHEDB,V1,V2,V3 Z15?  
P\_E7EA301 TEST\_OP VRR,VFCHEDBS,V1,V2,V3 Z15?  
P\_E7EA280 TEST\_OP VRR,WFCHEB,V1,V2,V3 Z15?  
P\_E7EA281 TEST\_OP VRR,WFCHEBS,V1,V2,V3 Z15?  
P\_E7EA380 TEST\_OP VRR,WFCHEDB,V1,V2,V3 Z15?



P\_E7EA381 TEST\_OP VRR,WFCHEDBS,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,WFKHXSBS,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,VACCQ,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,VSF,V1,V2,V3 Z15?  
P\_E7F71 TEST\_OP VRR,VSH,V1,V2,V3 Z15?  
P\_E7F72 TEST\_OP VRR,VSG,V1,V2,V3 Z15?  
P\_E7F73 TEST\_OP VRR,VSQ,V1,V2,V3 Z15?  
P\_E7F74 TEST\_OP VRR,VSE,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\_EB17 TEST\_OP RXY,STCCTM,M1,D2(X2,B2) RPI 2225  
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,LOCFHNM,R1,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,LOGG,R1,D2(B2),M3  
P\_EBE21 TEST\_OP RSY,LOGGO,R1,D2(B2) Z15  
P\_EBE22 TEST\_OP RSY,LOGGH,R1,D2(B2) Z15  
P\_EBE22 TEST\_OP RSY,LOGGP,R1,D2(B2) Z15  
P\_EBE24 TEST\_OP RSY,LOGGL,R1,D2(B2) Z15  
P\_EBE24 TEST\_OP RSY,LOGGM,R1,D2(B2) Z15  
P\_EBE27 TEST\_OP RSY,LOGGNE,R1,D2(B2) Z15  
P\_EBE27 TEST\_OP RSY,LOGGNZ,R1,D2(B2) Z15  
P\_EBE28 TEST\_OP RSY,LOGGE,R1,D2(B2) Z15  
P\_EBE28 TEST\_OP RSY,LOGGZ,R1,D2(B2) Z15  
P\_EBE2B TEST\_OP RSY,LOGGNL,R1,D2(B2) Z15  
P\_EBE2B TEST\_OP RSY,LOGGNM,R1,D2(B2) Z15  
P\_EBE2D TEST\_OP RSY,LOGGNH,R1,D2(B2) Z15  
P\_EBE2D TEST\_OP RSY,LOGGNP,R1,D2(B2) Z15  
P\_EBE2E TEST\_OP RSY,LOGGNO,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,LOCP,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 RPI 2225  
P\_EC44 TEST\_OP RIE,JXHG,R1,R3,\*+I2 RPI 2225  
P\_EC45 TEST\_OP RIE,BRXLG,R1,R3,\*+I2 RPI 2225  
P\_EC45 TEST\_OP RIE,JXLEG,R1,R3,\*+I2 RPI 2225  
P\_EC46 TEST\_OP RIE,LOCGHI,R1,I2,M3 Z15?  
P\_EC461 TEST\_OP RIE,LOCGHIO,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,LOGHINP,R1,I2 Z15  
P\_EC46E TEST\_OP RIE,LOGHINO,R1,I2 Z15  
P\_EC4E TEST\_OP RIE,LOCHHI,R1,I2,M3 Z15?  
P\_EC4E1 TEST\_OP RIE,LOCHHIO,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,LLHHR,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,CIJNL,R1,I2,\*+I4  
P\_EC7FC TEST\_OP RIE,CIJNH,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,R2,D4(B4)  
P\_ECFC TEST\_OP RIS,CGIB,R1,I2,M3,D4(B4)  
P\_ECFC2 TEST\_OP RIS,CGIBH,R1,I2,D4(B4)  
P\_ECFC4 TEST\_OP RIS,CGIBL,R1,I2,D4(B4)  
P\_ECFC6 TEST\_OP RIS,CGIBNE,R1,I2,D4(B4)  
P\_ECFC8 TEST\_OP RIS,CGIBE,R1,I2,D4(B4)  
P\_ECFC A TEST\_OP RIS,CGIBNL,R1,I2,D4(B4)  
P\_ECFC C TEST\_OP RIS,CGIBNH,R1,I2,D4(B4)  
P\_ECFC D TEST\_OP RIS,CLGIB,R1,I2,M3,D4(B4)  
P\_ECFC D2 TEST\_OP RIS,CLGIBH,R1,I2,D4(B4)  
P\_ECFC D4 TEST\_OP RIS,CLGIBL,R1,I2,D4(B4)  
P\_ECFC D6 TEST\_OP RIS,CLGIBNE,R1,I2,D4(B4)  
P\_ECFC D8 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\_EC FEC TEST\_OP RIS,CIBNH,R1,I2,D4(B4)  
P\_ECF F TEST\_OP RIS,CLIB,R1,I2,M3,D4(B4)  
P\_ECF F2 TEST\_OP RIS,CLIBH,R1,I2,D4(B4)  
P\_ECF F4 TEST\_OP RIS,CLIBL,R1,I2,D4(B4)  
P\_ECF F6 TEST\_OP RIS,CLIBNE,R1,I2,D4(B4)  
P\_ECF F8 TEST\_OP RIS,CLIBE,R1,I2,D4(B4)  
P\_ECF FA TEST\_OP RIS,CLIBNL,R1,I2,D4(B4)  
P\_ECF FC 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)