To our customers,

Old Company Name in Catalogs and Other Documents

On April 1st, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: http://www.renesas.com

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Renesas Electronics Corporation

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GRADE A

MSC TECHNICAL NEWS

No.M16C-08-9705

Note on using the HOLD/Ready signal of the M16C/60 group MCU

1. Related devices

M16C/60 group

2. Symptoms

When the JMP.A or JSR.A instruction immediately after a write instruction, if data is written after clearing HOLD or Ready, the data is not written to the correct address.
This symptom is added information for MSC TECHNICAL NEWS "No. M16C-02-9607".

3. Example

When executing the following program, if the HOLD and Ready signals are not input, the content of R0L is written to address 00501_{16} by the MOV.B instruction and there is a jump to LABEL by the JMP.A instruction. When the HOLD and Ready request is occurred during writing to the address 0501_{16}, the CPU may write to the data to incorrect address.

Example:

```
                MOV.B    R0L , 501H
                JMP.A    LABEL
                  .
                  .
LABEL :
```

4. Solution

Insert the JMP.B instruction for jumping to the JMP.A or JSR.A instruction before the JMP.A or JSR.A instruction.

Example:

```
                MOV.B    R0L,501H
                JMP.B    PTCH
PTCH:           JMP.A    LABEL
                  .
                  .
LABEL :
```

5. Reference

The JMP.A and JSR.A instructions are used when the branch distance is over 32 K bytes. Use the JMP.S, JMP.B or JMP.W instruction for unconditional branch instruction distances under 32 K bytes. Use the JSR.W instruction for subroutine call distances under 32 K bytes.