

RENESAS TECHNICAL UPDATE

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Product Category	User Development Environment		Document No.	TN-CSX-A083A/E	Rev.	1.0
Title	H8S, H8/300 Series Assembler V.6 bug information		Information Category	Technical Notification		
Applicable Product	R0C40008XSW06R R0C40008XSS06R R0C40008XSH06R	Lot No.	Reference Document	H8S, H8/300 Series C/C++ Compiler Assembler Optimizing Linkage Editor User's Manual (REJ10B0058-0100H Rev.1.00)		
		Ver 6.0.01 Ver 6.0.02				

Problems with the H8S, H8/300 series Assembler Ver.6 are listed below.

Please be careful to use this version of the assembler.

This bug is fixed on Ver.6.0.03.

1) When a structured assembly directive without size is in your program, (E)300 ILLEGAL MNEMONIC is occurred.

[Conditions]

This problem occurs if the following condition is satisfied.

(1) A structured assembly directive without size is in your assembler program.

[Solutions]

This problem can be circumvented in either of the following ways:

(1) Describe a branch size of DISPSIZE control instruction instead of a size of structured assembly directive and select neither BR_RELATIVE nor OPTIMIZE option.

Original:

```
.IF:16 (R0LR1L)      ;(E)300 ILLEGAL MNEMONIC
    add.w #1,r0
.ELSE:8              ;(E)300 ILLEGAL MNEMONIC
    add.w #2,r0
.ENDI                ;(E)631 END DIRECTIVE MISMATCH
```

Modified:

```
.DISPSIZE FBR=16      ;Added
. IF (R0LR1L)         ;Remove the branch size description
    add.w #1,r0
.DISPSIZE FBR=8      ;Added
.ELSE                 ;Remove the branch size description
    add.w #2,r0
.ENDI
```

(2) Describe the size description of structured assembly directive.

Original:

```
.IF:16 (R0LR1L) ;(E)300 ILLEGAL MNEMONIC
    add.w #1,r0
.ENDI
```

Modified:

```
.IF.B:16 (R0LR1L) ; Added size description
    add.w #1,r0
.ENDI
```

Note: .ELSE, .CASE, .BREAK and .CONTINUE structured assembly directives do not have a size and use (1) workaround.

2) A no error of illegal delay slot instruction 1. Description

When delay slot instruction is not 1-word instruction, assemble error (E)150 INVALID DELAY SLOT INSTRUCTION is not shown.

[Conditions]

This problem occurs if the following two conditions are satisfied:

- (1)H8SXN, H8SXM, H8SXA or H8SXX is selected as CPU option.
- (2)Delay instruction is not one-word instruction.

[Examples]

```
.import _a
.import _b
.SECTION P,CODE,ALIGN=2
L1:BRAS L2 ;delay branch instruction MOV.L @_a,@_b ;delay slot instruction ;(8-byte length instruction) L2:
```

[Solution]

Check the delay slot instruction in your assembler program whether one-word instruction or not.