

To our customers,

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Renesas Electronics Corporation

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CUSTOMER NOTIFICATION

ZUD-CD-08-0117 (1/6)
July 2, 2008
Yoshinari Ando, Team Manager Development Tool Solution Group Multipurpose Microcomputer Systems Division Microcomputer Operations Unit NEC Electronics Corporation

QB-78K0SKX1  
(Control Code: A, B, C)  
  
Operating Precautions

Be sure to read this document before using the product.

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## Operating Precautions for QB-78K0SKX1

This document describes the following items. Refer to the user's manual for cautions on using an in-circuit emulator.

- Restrictions not applicable to the target device but applicable to an in-circuit emulator
- Restrictions applicable to both the target device and an in-circuit emulator but the correction is planned only for the in-circuit emulator

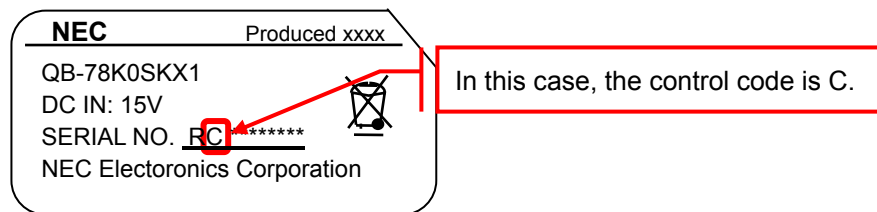
Also refer to the following documents for the restrictions in the target device.

- User's manual of target device
- Restrictions notification document for target device

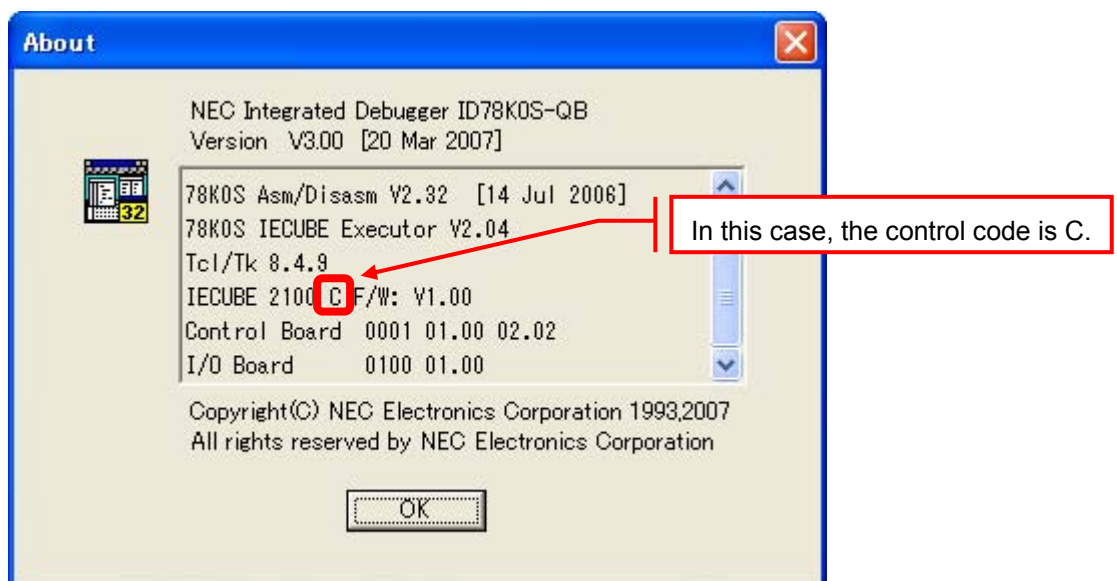
### 1. Product Version

The product versions of NEC Electronics in-circuit emulators are indicated by a control code. The control code is the second digit from the left in the 10-digit serial number. If the product has been upgraded, the control code can be checked by selecting [About] from the [Help] menu while the ID78K0S-QB is running. "X" in version information "IECUBE \*\*\*\* X F/W: V\*.\*\*" is the control code.

**Figure 1. Checking Control Code (Label on QB-78K0SKX1)**



**Figure 2. Checking Control Code (ID78K0S-QB)**



## 2. Restrictions

### 2.1 List of restrictions

No.	Restrictions	Control Code		
		A	B	C
1	A program does not stop at a software breakpoint	×	○	○
2	Restriction on A/D conversion	×	×	○

–: Not relevant, ×: Applicable, ○: Corrected

### 2.2 Details of restrictions

#### No. 1 A program does not stop at a software breakpoint

##### [Description]

A program does not stop at a software breakpoint that is set to an instruction following the instruction whose instruction code is `0A0Axx`. Moreover, the instruction is not executed correctly.

Example: Assemble window display

```

*   0180  0A0A0D  SET1 P13.0H
B   0183  0A5A04  SET1 P4.5H
*   0186  0A3A0C  SET1 P12.3H

```

A program does not stop at this breakpoint because the instruction code immediately before this instruction is `0A0Axx`. Moreover, this instruction is not executed correctly.

##### [Workaround]

There is no workaround.

##### [Correction]

This issue will be corrected in QB-78K0SKX1 with control code B and later.

#### No. 2 Restriction on A/D conversion

##### [Description]

The result of the first A/D conversion may be invalid when either of the following conditions is satisfied.

- (1) The setting of the analog input channel specification register (ADS) is changed during A/D conversion
- (2) A/D conversion is stopped and then restarted

##### [Workaround]

Ignore the first A/D conversion result.

##### [Correction]

This issue will be corrected in QB-78K0SKX1 with control code C and later. In the case of (1), however, the first A/D conversion may take additional time (about 3  $\mu$ s).

### 3. Additions and Changes to Specifications

#### 3.1 List of additions and changes in specifications

No.	Restrictions	Control Code		
		A	B	C
1	Addition of support for $\mu$ PD78F9500, $\mu$ PD78F9501 and $\mu$ PD78F9502	×	○	○

#### 3.2 Details of additions and changes in specifications

No. 1 Addition of support for  $\mu$ PD78F9500,  $\mu$ PD78F9501 and  $\mu$ PD78F9502

[Description]

The  $\mu$ PD78F9500,  $\mu$ PD78F9501 and  $\mu$ PD78F9502 are supported in QB-78K0SKX1 with control code B and later.

[Caution]

When debugging the  $\mu$ PD78F9500,  $\mu$ PD78F9501 or  $\mu$ PD78F9502 as the target device by using QB-78K0SKX1 with control code B and later, use the device file included in the DF789234 (package version: V3.10 or later).

Control Code	Device File (DF789234) Package Version	Target Device	
B and later	V3.10 or later	78K0S/KU1+	$\mu$ PD78F9200, $\mu$ PD78F9201, $\mu$ PD78F9202, $\mu$ PD78F9500, $\mu$ PD78F9501, $\mu$ PD78F9502
		78K0S/KY1+	$\mu$ PD78F9210, $\mu$ PD78F9211, $\mu$ PD78F9212, $\mu$ PD78F9510, $\mu$ PD78F9511, $\mu$ PD78F9512
		78K0S/KA1+	$\mu$ PD78F9221, $\mu$ PD78F9222
		78K0S/KB1+	$\mu$ PD78F9232, $\mu$ PD78F9234
A	V3.00	78K0S/KU1+	$\mu$ PD78F9200, $\mu$ PD78F9201, $\mu$ PD78F9202
		78K0S/KY1+	$\mu$ PD78F9210, $\mu$ PD78F9211, $\mu$ PD78F9212, $\mu$ PD78F9510, $\mu$ PD78F9511, $\mu$ PD78F9512
		78K0S/KA1+	$\mu$ PD78F9221, $\mu$ PD78F9222, $\mu$ PD78F9521, $\mu$ PD78F9522
		78K0S/KB1+	$\mu$ PD78F9232, $\mu$ PD78F9234, $\mu$ PD78F9532, $\mu$ PD78F9534

### 4. Cautions

No. 1 Supported debugger version

[Description]

Use ID78K0S-QB V3.00 or later and DF789234 V3.10 or later for the QB-78K0SKX1 with control code B and later.

## 5. Corrections to User's Manual

Corrections to the *QB-78K0SKX1 User's Manual* (document number: U18219EJ, 3rd edition) are described below.

Correction of restrictions

- Location  
*CHAPTER 4 RESTRICTIONS* on page 30
- Description

Before correction:

- Clock oscillation or clock input via a resonator on the target system is not supported. The clock differs between the device and the tool (QB-78K0SKX1) according to the option byte (OSCSEL1, OSCSEL0) setting as follows.

When the target device is other than the  $\mu$ PD78F950x

Option Byte		Device	Tool
OSCSEL1	OSCSEL0		
0	0	Crystal/ceramic oscillation clock	System clock on QB-78K0SKX1
0	1	External clock input	System clock on QB-78K0SKX1
1	x	Internal high-speed oscillation clock	Internal high-speed oscillation clock of QB-78K0SKX1

When the target device is the  $\mu$ PD78F950x

Option Byte		Device	Tool
OSCSEL1	OSCSEL0		
0	0	Internal high-speed oscillation clock	System clock on QB-78K0SKX1 <sup>Note</sup>
0	1	External clock input	System clock on QB-78K0SKX1
1	x	Internal high-speed oscillation clock	Internal high-speed oscillation clock of QB-78K0SKX1

**Note** If OSCSEL1 and 0 are set to 0 and 0, set the setting in the Configuration dialog box of the debugger to "None" or "8 MHz".

After correction:

- Clock oscillation or clock input via a resonator on the target system is not supported. The clock differs between the device and the tool (QB-78K0SKX1) according to the option byte (OSCSEL1, OSCSEL0) setting as follows.

When the target device is other than the  $\mu$ PD78F950x

Option Byte		Device	Tool
OSCSEL1	OSCSEL0		
0	0	Crystal/ceramic oscillation clock	System clock on QB-78K0SKX1
0	1	External clock input	System clock on QB-78K0SKX1
1	x	Internal high-speed oscillation clock	Internal high-speed oscillation clock of QB-78K0SKX1

When the target device is the  $\mu$ PD78F950x

Option Byte		Device	Tool
OSCSEL1	OSCSEL0		
0	0	Setting prohibited	Setting prohibited
0	1	External clock input	System clock on QB-78K0SKX1
1	x	Internal high-speed oscillation clock	Internal high-speed oscillation clock of QB-78K0SKX1