Microcontroller Technical Information

QB-780731 In-Circuit Emulator for μPD78F0731 Usage Restrictions		Document No.	ZBG-CD-07-0033		1/2
		Date issued	May 21, 2007		
		Issued by	Development Tool Solution Group Multipurpose Microcomputer Systems Division Microcomputer Operations Unit NEC Electronics Corporation		
Related documents	QB-780731 User's Manual: U17804EJ2V0UM00	Notification classification	√	Usage restriction	
				Upgrade	
				Document modification	
				Other notification	

1. Affected product

Product	Outline	Control Code[Note]
QB-780731	In-circuit emulator for μPD78F0731	A, B, C

2. New items

A restriction (No. 1) and a new specification (No. 3) have been added. See the attachment for details.

3. Workarounds

See the attachment for details.

4. Modification schedule

Products in which restriction No. 1 and the new specification (No. 3) is corrected or implemented are scheduled for release as follows.

Newly shipped products: Ordered from June 4, 2007 (control code: C)

Upgrade for already shipped products: Available from June 4, 2007

* Note that this schedule is subject to change without notice. For the detailed release schedule of modified products, contact an NEC Electronics sales representative.

Note 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 in the About dialog box in the ID78K0-QB.
"X" in version information "IECUBE **** X F/W: V*.**" is the control code.

5. List of restrictions

See the attachment.

6. Document revision history

Document Number	Issued on	Description
ZBG-CD-07-0033	May 21, 2007	Newly created.

Operating Precautions for QB-780731

1. Introduction

This document describes restrictions applicable only to the emulator and restrictions that are planned for correction in the emulator.

Refer to the following documents for the restrictions in the target device.

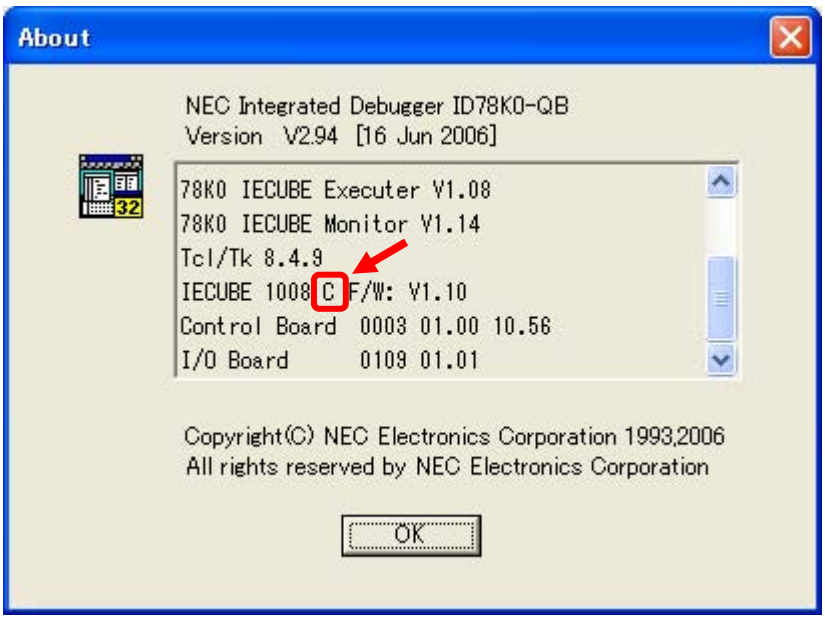
- User's manual of target device
- Restrictions notification document for target device

Also refer to the user's manual of the emulator for cautions on using the emulator.

2. Product Version

Control Code[Note]	Remark
A	–
B	–
C	–

Note 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 when ID78K0-QB for IECUBE is running.
"X" in version information "IECUBE **** X F/W: V*.**" is the control code.



3. Additions and Changes to Specifications

3.1 List of Additions and Changes to Specifications

No.	Additions and Changes to Specifications	Control Code		
		A	B	C
1	Specification change for USBREGC pin	×	○	○
2	Specification change for USB connector (EMU USB) on IECUBE	×	○	○
3	Support for emulation for boot swap function	×	×	○

×: Specification change not implemented, ○: Specification change implemented

3.2 Details of Additions and Changes to Specifications

No. 1 Specification change for USBREGC pin

[Description]

The USBREGC pin of IECUBE is left open. Therefore, the output from the USBREGC pin (3.3 V) cannot be used as the power supply for USBP (D+) pull-up control IC (3-state buffer).

[Workaround]

Supply 3.3 V to the USBREGC pin using a stabilized power supply or the like.

[Implementation]

This issue has been corrected in products with control code B and later.

No. 2 Specification change for USB connector (EMU USB) in IECUBE

[Description]

The logic of the USBP (D+) pull-up control IC (3-state buffer) that is configured inside IECUBE is the reverse of the logic described in the user's manual for the device.

If the target system or programs are created in accordance with the user's manual for the device and the USB connector (EMU USB) on IECUBE is used, pull-up resistor connected to USBP (D+) cannot be controlled.

Figure 3-1. Description in User's Manual

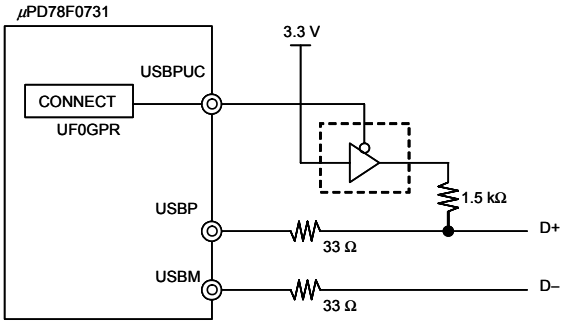
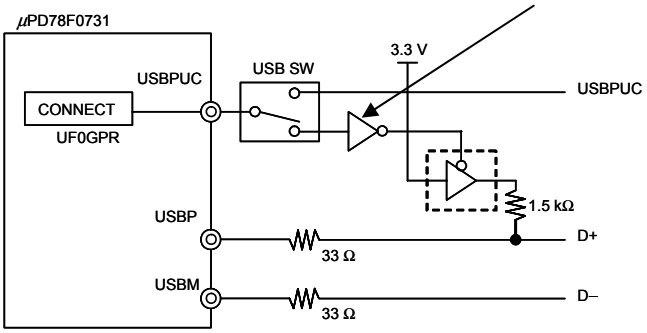


Figure 3-2. Circuit in IECUBE (Before Change)



[Workaround]

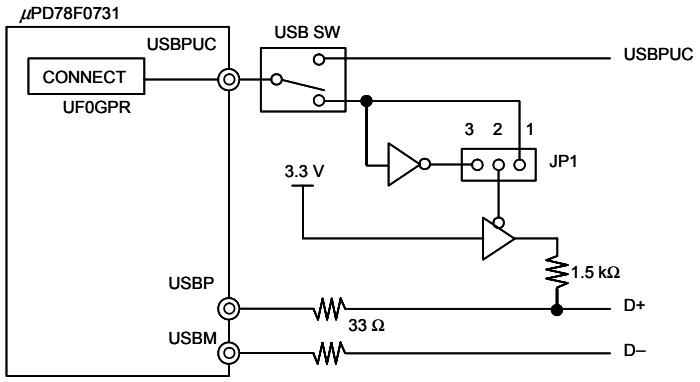
Emulate the IC using the USB connector on the target system.

To use the USB connector (EMU USB), reverse the setting of bit 1 of the UF0GPR register.

[Implementation]

This issue has been corrected in products with control code B and later.

Figure 3-3. Circuit in IECUBE (After Change)



No. 3 Support for emulation for boot swap function

[Description]

Emulation for the boot swap function is now supported. When using this function, use the tools in the following combinations.

- ID78K0-QB: V3.00 or later (planned to be released in June 2007)
- QB-780731: Control code C or later

4. Restrictions

4.1 List of restrictions

No.	Restrictions	Control Code		
		A	B	C
1	Bug whereby internal ROM area is overwritten during program execution	×	×	○

×: Applicable, ○: Corrected

4.2 Details of restrictions

No. 1 Bug whereby internal ROM area is overwritten during program execution

[Description]

Data in the internal ROM area may be overwritten if the Source window or Assemble window is open while a program is being executed for a long time. As a result, an unexpected fail-safe break (such as Write Protect Break or Non Map Break) may occur.

[Workaround]

There is no workaround.

[Correction]

This issue has been corrected in products with control code C and later.

5. Document Correction

The following point has been changed in the *QB-780731 In-Circuit Emulator User's Manual* (document number: U17804EJ2V0UM00).

5.1 Addition of caution

- Location
  2. Safety precautions in **General Precautions for Handling This Product** (page 5)

- Added description
  - The AC adapter supplied with the product is exclusively for this product, so do not use it with other products.