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

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (http://www.renesas.com)

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RENESAS

Customer Notification

IE-78K0S-NS-A

78K0S In – Circuit Emulator

Operating Precautions

Target Devices
All 78K0S devices

Global Document No. U18116EE1V0IF00 (1st edition)
Document No. TPS-LE-OP-TK0SNSA-1
Date Published: November 2005

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(A) Table of Operating Precautions

No.	Outline	Control Code Note	QB-78K0MINI		
			B	C	D
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2	Timing measurement in RUN-BREAK mode (Technical limitation)		✗	✓	✓
3	Software break with combined with SNAP/DMM event (Technical limitation)		✗	✓	✓
4	Debugger hang up at software break (Technical limitation)		✗	✗	✓
5	Restriction using software break (Technical limitation)		-	-	✗
6	Debugger Hang up while displaying internal RAM (Technical limitation)		✗	✗	✓
7	Illegal fetch break due to internal or external reset. (Technical limitation)		✗	✗	✓
8	Illegal fetch break due to watchdog timer reset (Technical limitation)		✗	✗	✗

✓ : Not applicable
✗ : applicable

Notes:
1. The “control code” is the second digit from the left in the 10-digit serial number in the warranty supplied with the product you purchased (if it has not been upgraded). If the product has been upgraded, a label indicating the new version is attached to the product and the x in V-UP LEVEL x on this label indicates the control code.

2. The Operating Precaution for products with control code A is not content of this customer notification because these parts were not released here in EUROPE.

(B) Description of Operating Precautions

No.1	Problems with emulation board fixing stays (Technical limitation)

Details

When connecting the IE-789488-NS-EM1, IE-789850-NS-EM1, or IE-789882-NS-EM1 to the main board, the test pins of the emulation board contact the emulation board fixing stays (metal fittings).

Workaround

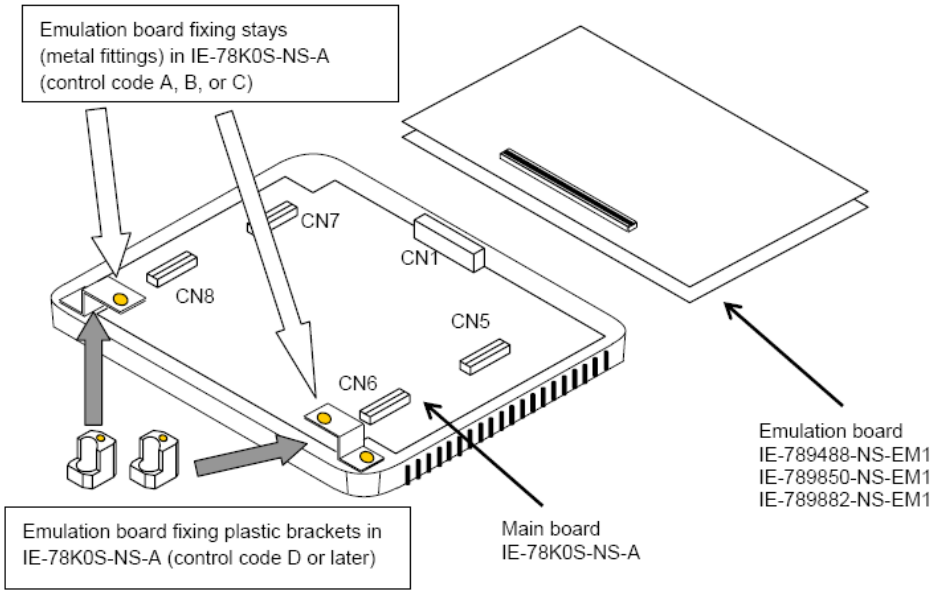
As a temporary workaround, connect the emulation board after removing the IE-78K0-NS-A emulation board fixing stays (metal fittings). Figure 2-1 shows the positions of the stays.

The emulation boards will be revised by upgrading to the following versions (control code).

- IE-789488-NS-EM1: Control code C
- IE-789850-NS-EM1: Control code C
- IE-789882-NS-EM1: Control code B

The metal fittings have been replaced with the plastic brackets in IE-78K0S-NS-A control code D or later.

Figure 2-1. Removal of Emulation Board Fixing Stays (Metal Fittings)



No.2	Timing measurement in RUN-BREAK mode (Technical limitation)

	Details After time measuring is performed in RUN-BREAK mode, if Go is executed without rewriting the program counter (PC) or applying RESET, time measuring is not performed normally.

No.3	Software break combined with SNAP/DMM event (Technical limitation)
	Details If a software break is set to an instruction immediately before/after the instruction to which a SNAP/DMM event is set, the following illegal operations occur. • The software break does not occur. • The instruction to which the software break is set is not executed. • The software break code is traced. • The SNAP/DMM event is traced twice.

No.4	Debugger hang up at software break (Technical limitation)
	Details The debugger may hang when an interrupt and an instruction to which a software break is set conflict.

No.5	Restriction using software break (Technical limitation)
	Details When an interrupt and an instruction to which a software break is set conflict, the user program breaks at the interrupted location. This restriction applies to products in which item No. 4 is corrected (it is not applicable to control code B).

No.6	Debugger Hang up while displaying internal RAM (Technical limitation)
	Details The debugger may hang up if a break (other than a forced break) occurs during user program execution under either of the following conditions. • The Watch window is open with the internal RAM area displayed. • The Memory window is open with the internal RAM area displayed.

No.7	Illegal fetch break due to internal or external reset. (Technical limitation)
	Details If an external reset input by the RESET pin or an internal reset (reset by POC, LVI, etc.) occurs, the program may be stopped due to an illegal fetch break (fail-safe break function). This restriction does not depend on the emulation board, emulation probe, or target system.

No.8	Illegal fetch break due to watchdog timer reset. (Technical limitation)
	Details When the watchdog timer is used in a mode in which a reset is generated upon program loop detection, and then a reset occurs, the program may be stopped due to an illegal fetch break (failsafe break function). • Products affected by this restriction: IE-789014-NS-EM1, IE-789026-NS-EM1, IE-789046-NS-EM1, IE-789088-NS-EM1, IE-789136-NS-EM1, IE-789177-NS-EM1, IE-789306-NS-EM1, IE-789418-NS-EM1, IE-789436-NS-EM1, IE-789456-NS-EM1, IE-789468-NS-EM1, IE-789488-NS-EM1, IE-789801-NS-EM1, IE-789831-NS-EM1, IE-789835-NS-EM1, IE-789840-NS-EM1, IE-789850-NS-EM1, IE-789852-NS-EM1, IE-789860-NS-EM1, IE-789862-NS-EM1, IE-789871-NS-EM1 • Products not affected by this restriction: IE-789234-NS-EM1, IE-789842-NS-EM1, IE-789882-NS-EM1

(C) Valid Specification

Item	Date published	Document No.	Document Title
1	April 2001	U15207EJ…	IE-78K0S-NS-A User's Manual

(D) Revision History

Item	Date published	Document No.	Comment
1	Dezember 2005	TPS-LE-OP-TK0SNSA-1	1st Release in new format with addition of control code C and D