

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 TECHNICAL UPDATE

Nippon Bldg., 2-6-2, Ohte-machi, Chiyoda-ku, Tokyo 100-0004, Japan
Renesas Technology Corp.

Product Category	MPU&MCU		Document No.	TN-16C-122A/EA	Rev.	1.00
Title	Precautions When Performing CAN Configuration		Information Category	Usage Limitation		
Applicable Product	M16C/6N, M16C/1N, M16C/29 Group	Lot No.	Reference Document	Application Note		

When you perform CAN configuration, please be sure to follow the CAN configuration procedure described in CAN Application Notes (REJ05B0276).

If CAN configuration is performed differently from the CAN configuration procedure described in CAN Application Notes, the following precautions should be observed.

1. Precautions

If in order to reconfigure the CAN module, the Reset bit (bit 0) in the CiCTRL register ($i = 0, 1$) ^{Note 1} is set from "0" (operation mode) to "1" (reset/initialization mode) briefly and then set from "1" back to "0" again, the CAN module may not operate normally.

This problem may occur if the Reset bit is changed in the manner described below.

- 1) The Reset bit is changed from "0" to "1" while the State_Reset bit (bit 8) in the CiSTR register ($i = 0, 1$) ^{Note 1} is "0" (operation mode).
- 2) The Reset bit is changed from "1" to "0" before the State_Reset bit is set to "1" (reset mode) (i.e., while the State_Reset bit remains "0").

2. Corrective measures

If you've changed the Reset bit from "0" to "1" in order to place the CAN module from operation mode into reset mode, always be sure to check that the State_Reset bit is set to "1" (reset mode). Similarly, if you've changed the Reset bit from "1" to "0" in order to place the CAN module from reset mode into operation mode, always be sure to check that the State_Reset bit is set to "0".

The procedure is described below.

- To place the CAN module from operation mode into reset mode
 - 1) Change the Reset bit from "0" to "1".
 - 2) Check that the State_Reset bit is set to "1".
- To place the CAN module from reset mode into operation mode
 - 1) Change the Reset bit from "1" to "0".
 - 2) Check that the State_Reset bit is set to "0".

3. Example corrective measures

Figure 1 shows a flowchart and program as an example corrective measure.

(For CAN0 configuration)

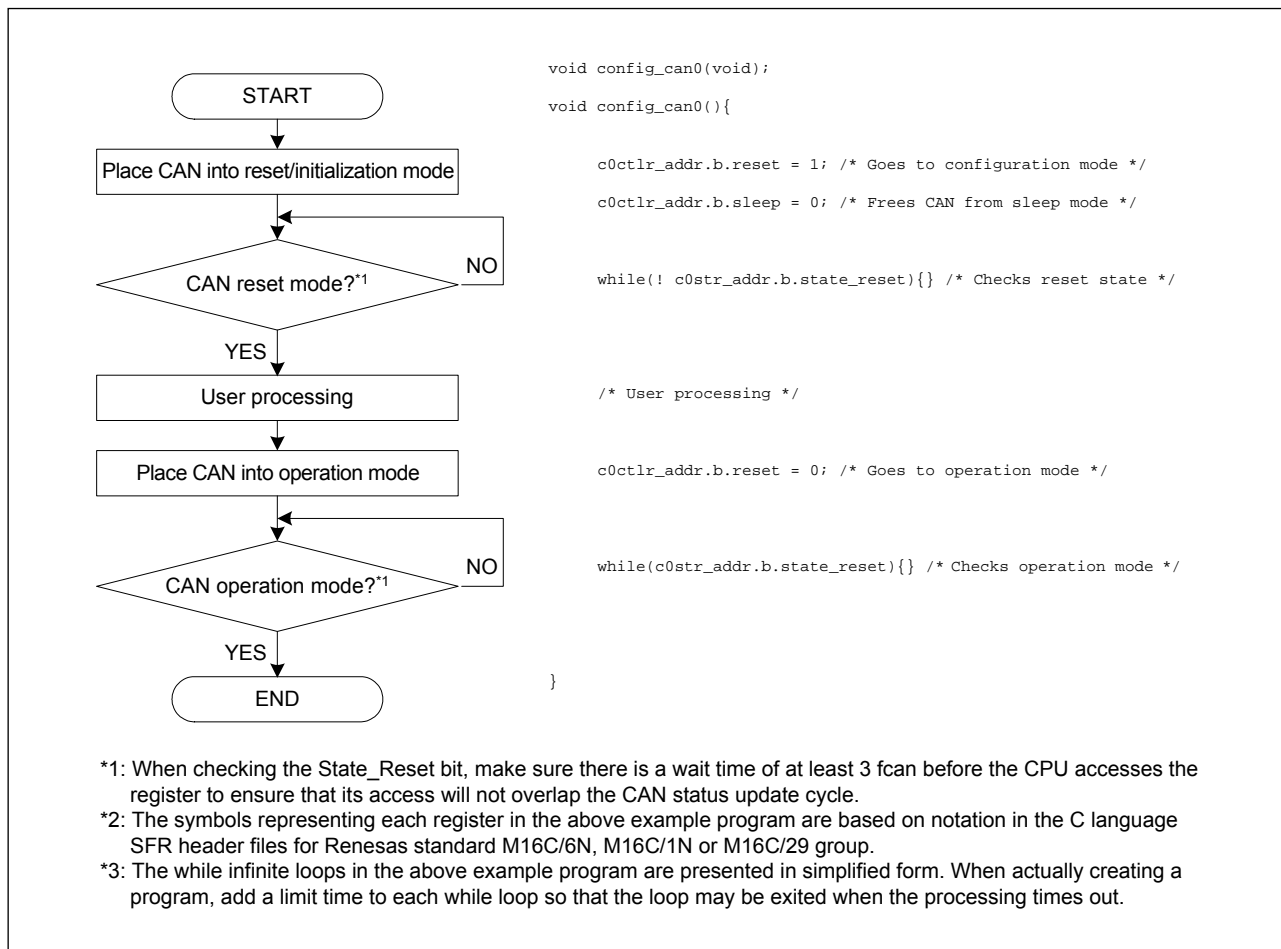


Figure 1. CAN Configuration Procedure

Note 1: For CAN 2-channel versions, i = 0 or 1; for CAN 1-channel versions, i = 0.