RENESAS TECHNICAL UPDATE

1753, Shimonumabe, Nakahara-ku, Kawasaki-shi, Kanagawa 211-8668 Japan
Renesas Electronics Corporation

Product Category	MPU/MCU			Document No.	TN-RX*-A020A/E	Rev.	1.00
Title	Precaution when Shifting to ROM-Read Modes			Information Category	Technical Notification		
Applicable Product	RX Family	Lot No.		Reference Document	Refer to the table below.		
		All lots					

Thank you for your valued patronage and best wishes for your continued success in business.

We would like to inform you of a required precaution when shifting to ROM-read modes and corrections to errors in the hardware manuals.

[Precaution]

After writing to the flash P/E mode entry register (FENTRYR) with the intention of placing the ROM or data-flash memory in ROM-read modes, read the register to check that the specified value has actually been set. Only start reading the ROM after confirming this.

[Correction to Errors in the Hardware Manuals]

A note on the above precaution is to be added to the hardware manuals listed in the table of related documents. The contents of the corrections are described using the text for the RX610 Group as a representative example.

1)   In section 26, ROM (Flash Memory for Code Storage) of the RX610 Group User's Manual: Hardware, the description of the register in section 26.2.8, Flash P/E Mode Entry Register (FENTRYR), has been revised.. The revision is indicated by the red letters below.

FENTRYR is a register to place the ROM/data flash in P/E mode.

To place the ROM/data flash in P/E mode so that the FCU can accept commands, one of the FENTRYD, FENTRY1*, and FENTRY0 bits must be set to 1. Note that if more than one of these bits is set to 1, the ILGLERR bit in FSTATR0 is set and the FCU enters the command-locked state.

After writing to FENTRYR to place the ROM or data-flash memory in ROM-read modes, read the register to check that the new value has actually been set. Only proceed with ROM-reading after that.
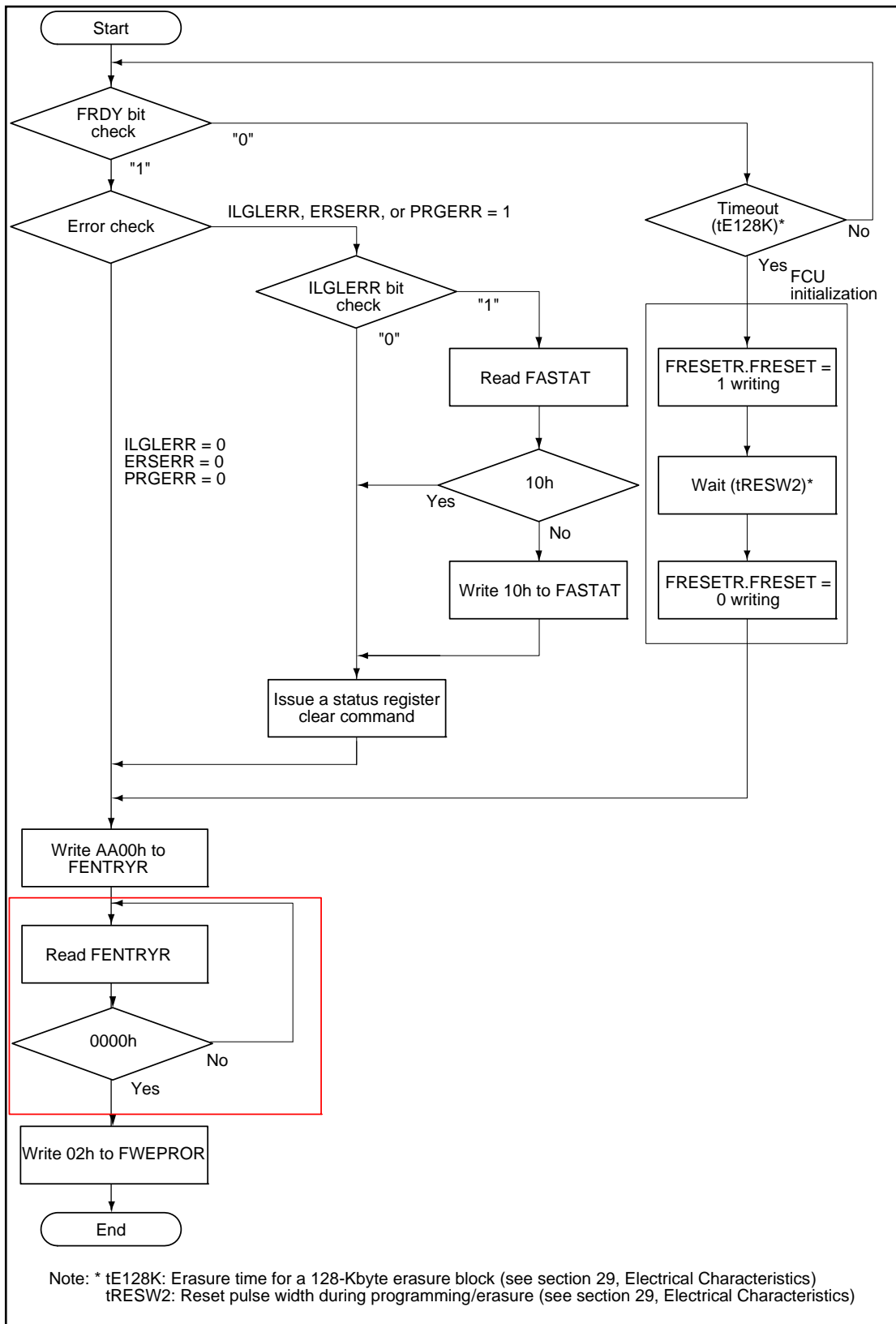
Only specific values written to the upper byte in word access are valid. Any other writing causes the register to be initialized.

Data written to the upper byte is not retained.

When on-chip ROM is disabled, the data read from FENTRYR is 0000h and writing is disabled.

FENTRYR is initialized by a reset, or when the FRESET bit in FRESETR is set to 1.

2)   In section 26, ROM (Flash Memory for Code Storage) of the RX610 Group User's Manual: Hardware, the flowchart in Figure 26.7, Procedure for Transition to ROM Read Mode, has been revised.. The revision is indicated in the red frame below.

Note: * tE128K: Erasure time for a 128-Kbyte erasure block (see section 29, Electrical Characteristics)
          tRESW2: Reset pulse width during programming/erasure (see section 29, Electrical Characteristics)

[Applicable Products and Related Documents]

Family	Group	Related Documents	Rev.	Control Code	Section No. for the ROM
RX	RX610	RX610 Group User's Manual: Hardware	1.10	R01UH0032EJ0110	26
	RX62N, RX621	RX62N Group, RX621 Group User's Manual: Hardware	1.30	R01UH0033EJ0130	38
	RX62T	RX62T Group User's Manual: Hardware	1.30	R01UH0034EJ0130	31
	RX62G	RX62G Group User's Manual: Hardware	1.00	R01UH0321EJ0100	31

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