

# RENESAS TECHNICAL UPDATE

TOYOSU FORESIA, 3-2-24, Toyosu, Koto-ku, Tokyo 135-0061, Japan  
Renesas Electronics Corporation

Product Category	MPU/MCU		Document No.	TN-RX*-A0239B/E	Rev.	2.00
Title	RX210 Group Errata to User's Manual: Hardware Regarding the Realtime Clock (RTC)		Information Category	Technical Notification		
Applicable Product	RX210 Group	Lot No.	Reference Document	RX210 Group User's Manual: Hardware Rev.1.50 (R01UH0037EJ0150)		
		All				

This document describes corrections to the “Realtime Clock (RTC)” chapter in User’s Manual: Hardware for the applicable products.

# • Page 897 of 1630

A note is added to the table in section 26.2.18, RTC Control Register 2 (RCR2) as follows.

## Before correction

### 26.2.18 RTC Control Register 2 (RCR2)

Address(es): 0008 C424h

	b7	b6	b5	b4	b3	b2	b1	b0
	—	HR24	AADJP	AADJE	RTCOE	ADJ30	RESET	START
Value after reset:	x	x	x	x	0	0	0	x

x: Undefined

Bit	Symbol	Bit Name	Description	R/W
b0	START	Start	0: Year, month, day-of-week, date, hour, minute, second, and 64-Hz counters, and prescaler are stopped. 1: Year, month, day-of-week, date, hour, minute, second, and 64-Hz counters, and prescaler operate normally.	R/W
b1	RESET	RTC Software Reset	<ul style="list-style-type: none"> <li>In writing</li> <li>0: Writing is invalid.</li> <li>1: The prescaler and the target registers are reset by RTC software reset. (R64CNT, RSECAR, RMINAR, RHRAR, RWKAR, RDAYAR, RMONAR, RYRAR, RYRAREN, RADJ, RTCCRY, RSECCPY, RMINCPY, RHRCPY, RDAYCPY, RMONCPY, RCR2.ADJ30, RCR2.AADJE, RCR2.AADJP)</li> <li>In reading</li> <li>0: In normal time operation, or an RTC software reset has completed.</li> <li>1: During an RTC software reset</li> </ul>	R/W
b2	ADJ30	30-Second Adjustment	<ul style="list-style-type: none"> <li>In writing</li> <li>0: Writing is invalid.</li> <li>1: 30-second adjustment is executed.</li> <li>In reading</li> <li>0: In normal time operation, or 30-second adjustment has completed.</li> <li>1: During 30-second adjustment</li> </ul>	R/W
b3	RTCOE	RTCOUNT Output Enable	0: RTCOUNT output disabled. 1: RTCOUNT output enabled.	R/W
b4	AADJE	Automatic Adjustment Enable	0: Automatic adjustment is disabled. 1: Automatic adjustment is enabled.	R/W
b5	AADJP	Automatic Adjustment Period Select	0: The RADJ.ADJ[5:0] setting value is adjusted from the count value of the prescaler every minute. 1: The RADJ.ADJ[5:0] setting value is adjusted from the count value of the prescaler every 10 seconds.	R/W
b6	HR24	Hours Mode	0: The RTC operates in 12-hour mode. 1: The RTC operates in 24-hour mode.	R/W
b7	—	Reserved	Set this bit to 0. It is read as 0.	R/W

# After correction

## 26.2.18    RTC Control Register 2 (RCR2)

Address(es): 0008 C424h

	b7	b6	b5	b4	b3	b2	b1	b0
	—	HR24	AADJP	AADJE	RTCOE	ADJ30	RESET	START
Value after reset:	x	x	x	x	0	0	0	x

x: Undefined

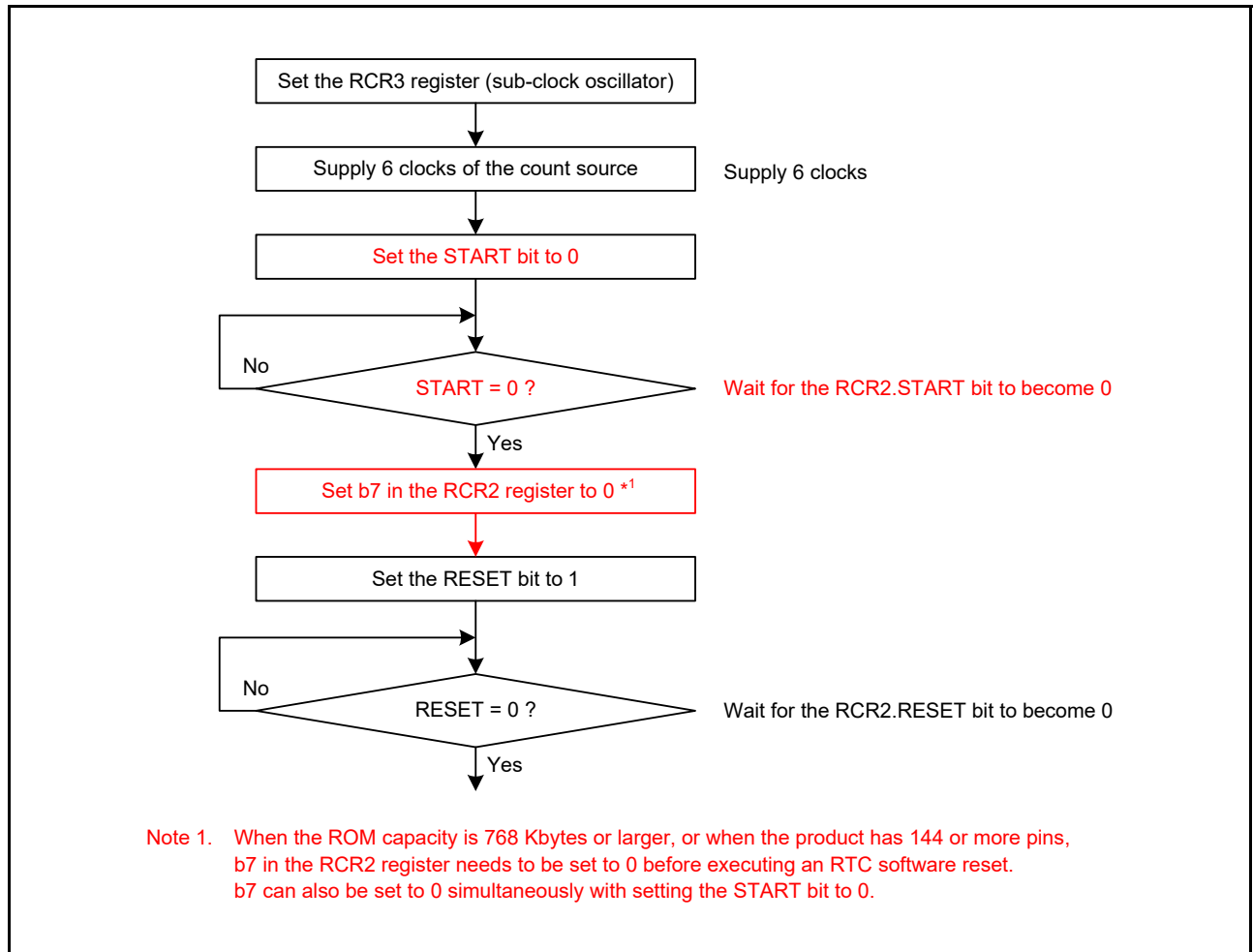
Bit	Symbol	Bit Name	Description	R/W
b0	START	Start <sup>*1</sup>	0: Year, month, day-of-week, date, hour, minute, second, and 64-Hz counters, and prescaler are stopped. 1: Year, month, day-of-week, date, hour, minute, second, and 64-Hz counters, and prescaler operate normally.	R/W
b1	RESET	RTC Software Reset	<ul style="list-style-type: none"> <li>In writing</li> <li>0: Writing is invalid.</li> <li>1: The prescaler and the target registers are reset by RTC software reset. (R64CNT, RSECAR, RMINAR, RHRAR, RWKAR, RDAYAR, RMONAR, RYRAR, RYRAREN, RADJ, RTCCPy, RSECCPy, RMINCPy, RHRCPy, RDAYCPy, RMONCPy, RCR2.ADJ30, RCR2.AADJE, RCR2.AADJP)</li> <li>In reading</li> <li>0: In normal time operation, or an RTC software reset has completed.</li> <li>1: During an RTC software reset</li> </ul>	R/W
b2	ADJ30	30-Second Adjustment	<ul style="list-style-type: none"> <li>In writing</li> <li>0: Writing is invalid.</li> <li>1: 30-second adjustment is executed.</li> <li>In reading</li> <li>0: In normal time operation, or 30-second adjustment has completed.</li> <li>1: During 30-second adjustment</li> </ul>	R/W
b3	RTCOE	RTCOUT Output Enable	0: RTCOUT output disabled. 1: RTCOUT output enabled.	R/W
b4	AADJE	Automatic Adjustment Enable <sup>*1</sup>	0: Automatic adjustment is disabled. 1: Automatic adjustment is enabled.	R/W
b5	AADJP	Automatic Adjustment Period Select <sup>*1</sup>	0: The RADJ.ADJ[5:0] setting value is adjusted from the count value of the prescaler every minute. 1: The RADJ.ADJ[5:0] setting value is adjusted from the count value of the prescaler every 10 seconds.	R/W
b6	HR24	Hours Mode <sup>*1</sup>	0: The RTC operates in 12-hour mode. 1: The RTC operates in 24-hour mode.	R/W
b7	—	Reserved <sup>*1</sup>	Set this bit to 0. It is read as 0.	R/W

**Note 1.** After writing to this bit, confirm that its value has actually changed before proceeding with further processing. Refer to section 26.6.5, Points for Caution when Writing to and Reading from Registers, regarding changes to the values of the AADJE, AADJP, and HR24 bits.

# • Page 908 of 1630

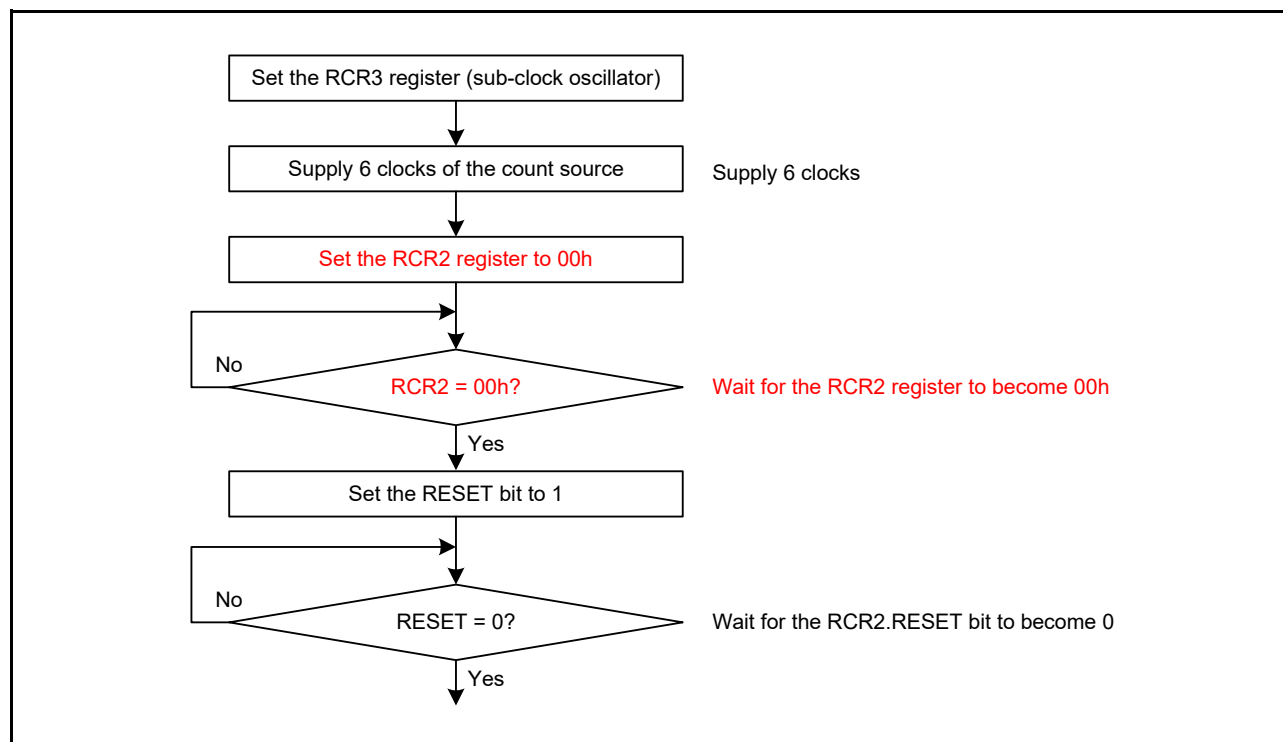
The setting procedure described in Figure 26.3, Clock Setting Procedure is corrected as follows.

## Before correction



**Figure 26.3** Clock Setting Procedure

After correction



**Figure 26.3    Clock Setting Procedure**