

RENESAS TECHNICAL UPDATE

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Product Category	MPU/MCU		Document No.	TN-V85-A0037A/E	Rev.	1.00
Title	V850E2/Dx4, Dx4-H Ambiguous description for Sound Generator		Information Category	Technical Notification		
Applicable Product	V850E2/Dx4 series V850E2/Dx4-H series	Lot No.	Reference Document	V850E2/Dx4(-H) User Manual (R01UH0075ED0104 Rev.1.04)		
		All				

There are ambiguous descriptions for Sound Generator.

This RENESAS Technical update will mention the restriction and the workaround.

1. Description

Description on user's manual will be updated as follows.

29.3.3 (1) Start of a new tone (Page 2294)

The note as below will be added to the end of the page.

NOTE

When different settings are continuously executed in the case of $SGnCONF.SGnBE = 0$, please wait for buffer update of current setting(<3>) before next setting. In order to wait for buffer update, please wait for more than half period of tone frequency after $SGnPWM$ setting(<2>). If volume is off by setting $SGnPWM = 0$, its update can be confirmed by reading $SGnSTAT.SGnRUN = 0$. After $SGnSTAT.SGnRUN = 0$, new setting is updated after writing $SGnPWM$.

29.4.2 Start sound (Page 2312)

The below description in red will be modified.

- If $SGnCTL.SGnEN = 1$ the sound generation will start **immediately** when writing to the $SGnPWM$ register.

29.4.3 (1) Stop sound by the application program (Page 2312)

The below description in red will be modified.

The sound is stopped **with the next edge of the tone signal**, when 000H is written to volume register $SGnPWM$, regardless of the setting of the $SGnCONF.SGnBE$ bit.

When stopping the sound, $SGnSTAT.SGnRUN$ bit sets to 1.

29.5.2 (1) SGnCTL – Control register (Page 2315)

The below description in red will be modified.

If SGnCTL.SGnEN is set to '0' while sound generation is ongoing, the sound will be stopped **immediately with the next edge of the PCLK clock**. No synchronization to the sound signal takes place.

29.5.2 (5) SGnPWM – Volume register (Page 2319)

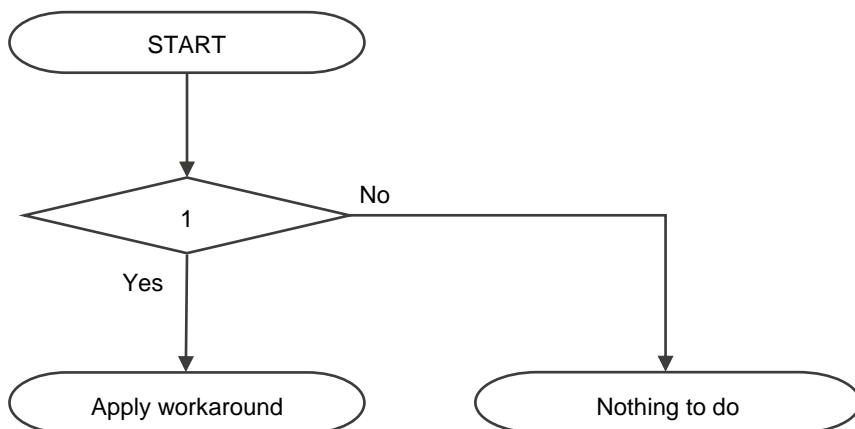
The below description in red will be modified.

3. The sound stops **immediately with the next edge of the tone signal** when this register is cleared.

2. Workaround

Wait the next edge of the tone signal before setting the new sound, when SGnCONF.SGnBE = 0 or restarting the sound.

3. Judgement flow



#	Condition
1	Is setting the new sound done before the next edge of the tone signal? Or is setting the new sound before stopping the sound?