

CUSTOMER NOTIFICATION

SUD-DT-03-0202-1-E (1/3)

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# IE-784225-NS-EM1 (Control Code: D)

## Operating Precautions

Be sure to read this document before using the product.

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## Notes on Using IE-784225-NS-EM1

### 1. Product History

No.	Bugs and Changes/Additions to Specifications	Control Code <sup>Note</sup>			
		A	B	C	D
1	Bug in Vpp bit emulation	×	√	√	√
2	Bug in low-voltage emulation when using IE-784000-R	×	×	√	√
3	Bug in timer in PWM mode	×	×	×	√
4	Change of target devices <Specification change>	×	×	×	√

×: Applicable, √: Not applicable (addition of specifications), -: Specifications not supported

**Note** 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 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. Details of Bugs and Added Specifications

#### No.1 Bug in Vpp bit emulation

[Description]

The Vpp bit cannot be emulated.

[Workaround]

There is no workaround. This bug has been corrected in control code B.

#### No.2 Bug in low-voltage emulation when using IE-784000-R

[Description]

Low-voltage emulation is not possible when the IE-784000-R is connected.

[Workaround]

There is no workaround. This bug has been corrected in control code C.

#### No.3 Bug in timer in PWM mode

[Description]

When the count enable flags are reset (TCE1, TCE2 = 0) after a timer counter overflow in PWM mode, noise (undershoot, overshoot) is imposed on the interrupt request signal, which may generate a timer interrupt (INTTM1, INTTM2).

See the bug notification document of the target device (SBG-T-0619-E) for details.

[Workaround]

There is no workaround. This bug has been corrected in control code D.

#### No.4 Change of target devices <Specification change>

[Description]

The target devices have been changed in control code D and later.

	Control Code A, B, C	Control Code D
Target devices	μPD784216B, 78F4216, 78F4218, 78421x, 78F4225, 784225	μPD784216A, 784216AY, 784218A, 784218AY, 784225, 784225Y Subseries

### 3. Restrictions

No.1 The function to connect an on-chip pull-up resistor to P02 is not supported.

[Description]

The function to connect an on-chip pull-up resistor to P02 is not supported.

P02 is not pulled up even if on-chip pull-up resistor connection is set (PU02 = 1).

[Workaround]

There is no workaround.