# RENESAS TECHNICAL UPDATE

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Renesas Electronics Corporation

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### Errata for User's Manual: Hardware for HOCO

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<tbody>
<tr>
<td><strong>Title</strong></td>
<td>Errata for User's Manual: Hardware for HOCO</td>
<td>TN-RA*-A0006A/E</td>
<td>1.00</td>
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<tr>
<td><strong>Applicable Product</strong></td>
<td>RA6M1 Group</td>
<td>RA6M2 Group</td>
<td>RA6M3 Group</td>
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<tr>
<td></td>
<td>RA6M1 Group User’s Manual Hardware Rev.1.00</td>
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<td>RA6M2 Group User’s Manual Hardware Rev.1.00</td>
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<td>RA6M3 Group User’s Manual Hardware Rev.1.00</td>
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The following descriptions should be changed.

1. **OSCSF**
   - RA6M1 Page 155, RA6M2 Page 160, RA6M3 Page 178
   - **Incorrect**
     - HOCOSF flag (HOCO Clock Oscillation Stabilization Flag)
       - The HOCOSF flag indicates the operating status of the counter that measures the wait time for the high-speed clock oscillator (HOCO). When OFS1.HOCOEN is set to 1, confirm that OSCSF.HOCOSF is also set to 1 before using the HOCO clock.
   - **Correct**
     - HOCOSF flag (HOCO Clock Oscillation Stabilization Flag)
       - The HOCOSF flag indicates the operating status of the counter that measures the wait time for the high-speed clock oscillator (HOCO). When OFS1.HOCOEN is set to 0, confirm that OSCSF.HOCOSF is also set to 1 before using the HOCO clock.

2. **HOCOCR**
   - RA6M1 Page 150, RA6M2 Page 155, RA6M3 Page 173
   - **Incorrect**
     - HCSTP bit (HOCO Stop)
       - The HCSTP bit starts or stops the HOCO clock.
       - After setting the HCSTP bit to 0 to start the HOCO clock, confirm that the OSCSF.HOSCSF bit is set to 1 before using the clock. When OFS1.HOCOEN is set to 1, confirm that the OSCSF.HOCOSF is also set to 1 before using the HOCO clock. A fixed stabilization wait is required after setting the HOCO clock to start operation. A fixed wait for oscillation to stop is also required. For the HOCO to operate, the HOCO Wait Control Register (HOCOWTCR) must also be set.
       - The following constraints apply when starting and stopping operation:
         - After stopping the HOCO, confirm that the OSCSF.HOCOSF bit is 0 before restarting the HOCO clock
         - Confirm that the HOCO clock is operating and that the OSCSF.HOCOSF bit is 1 before stopping...
the HOCO clock

- Regardless of whether the HOCO clock is selected as the system clock, confirm that the OSCSF.HOSCSF bit is set to 1 before executing a WFI instruction to place the MCU in Software Standby or Deep Software Standby mode.

- Correct
  
  HCSTP bit (HOCO Stop)
  
The HCSTP bit starts or stops the HOCO clock.

  After setting the HCSTP bit to 0 to start the HOCO clock, confirm that the OSCSF.HOSCSF bit is set to 1 before using the clock. When OFS1.HOCOEN is set to 0, confirm that the OSCSF.HOCOSF is also set to 1 before using the HOCO clock. A fixed stabilization wait is required after setting the HOCO clock to start operation. A fixed wait for oscillation to stop is also required. For the HOCO to operate, the HOCO Wait Control Register (HOCOWTCR) must also be set.

  The following constraints apply when starting and stopping operation:

  - After stopping the HOCO, confirm that the OSCSF.HOCOSF bit is 0 before restarting the HOCO clock.
  - Confirm that the HOCO clock is operating and that the OSCSF.HOCOSF bit is 1 before stopping the HOCO clock.
  - Regardless of whether the HOCO clock is selected as the system clock, confirm that the OSCSF.HOSCSF bit is set to 1 before executing a WFI instruction to place the MCU in Software Standby or Deep Software Standby mode while HOCOCR.HCSTP bit is 0.