

To our customers,

Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: <http://www.renesas.com>

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Renesas Electronics Corporation

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Renesas Technology Corp.
Customer Support Dept.
April 1, 2003



Precautions on Using H8S/2339F E10A Emulator

IMPORTANT INFORMATION

READ FIRST

? **READ this user's manual before using this emulator product.**

- **KEEP the user's manual handy for future reference.**

Do not attempt to use the emulator product until you fully understand its mechanism.

Emulator Product:

Throughout this document, the term "emulator product" shall be defined as the following products produced only by Hitachi, Ltd. excluding all subsidiary products.

- Emulator
- User system interface cable

The user system or a host computer is not included in this definition.

Purpose of the Emulator Product:

This emulator product is a software and hardware development tool for systems employing the Hitachi microcomputer. This emulator product must only be used for the above purpose.

Limited Applications:

This emulator product is not authorized for use in MEDICAL, atomic energy, aeronautical or space technology applications without consent of the appropriate officer of a Hitachi sales company. Such use includes, but is not limited to, use in life support systems. Buyers of this emulator product must notify the relevant Hitachi sales offices before planning to use the product in such applications.

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Target User of the Emulator Product:

This emulator product should only be used by those who have carefully read and thoroughly understood the information and restrictions contained in the user's manual. Do not attempt to use the emulator product until you fully understand its mechanism.

It is highly recommended that first-time users be instructed by users that are well versed in the operation of the emulator product.

LIMITED WARRANTY

Hitachi warrants its emulator products to be manufactured in accordance with published specifications and free from defects in material and/or workmanship. Hitachi, at its option, will replace any emulator products returned intact to the factory, transportation charges prepaid, which Hitachi, upon inspection, shall determine to be defective in material and/or workmanship. The foregoing shall constitute the sole remedy for any breach of Hitachi's warranty. See the Hitachi warranty booklet for details on the warranty period. This warranty extends only to you, the original Purchaser. It is not transferable to anyone who subsequently purchases the emulator product from you. Hitachi is not liable for any claim made by a third party or made by you for a third party.

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The Warranty is Void in the Following Cases:

Hitachi shall have no liability or legal responsibility for any problems caused by misuse, abuse, misapplication, neglect, improper handling, installation, repair or modifications of the emulator product without Hitachi's prior written consent or any problems caused by the user system.

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Figures:

Some figures in this user's manual may show items different from your actual system.

Limited Anticipation of Danger:

Hitachi cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this user's manual and on the emulator product are therefore not all inclusive. Therefore, you must use the emulator product safely at your own risk.

SAFETY PAGE

READ FIRST

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- **KEEP** the user's manual handy for future reference.

Do not attempt to use the emulator product until you fully understand its mechanism.

DEFINITION OF SIGNAL WORDS



This is the safety alert symbol. It is used to alert you to potential personal injury hazards.

Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.



CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTE emphasizes essential information.

WARNING

Observe the precautions listed below. Failure to do so will result in a **FIRE HAZARD** and will damage the user system and the emulator product or will result in **PERSONAL INJURY**. The **USER PROGRAM** will be **LOST**.

1. Do not repair or remodel the emulator product by yourself for electric shock prevention and quality assurance.
2. Always switch **OFF** the host computer and user system before connecting or disconnecting any **CABLES** or **PARTS**.
3. Confirm the correct direction of the connectors before connecting them in the user system side and in the user interface cable side.
4. If the PCI interface board for the E6000 or E8000 emulator (HS6000EIC01H) and the E10A emulator PCI card are mounted on the same host computer, the connectors may be illegally connected.

READ this document before using this emulator.

KEEP the document handy for future reference.

1. Emulator Preparation Flow Chart

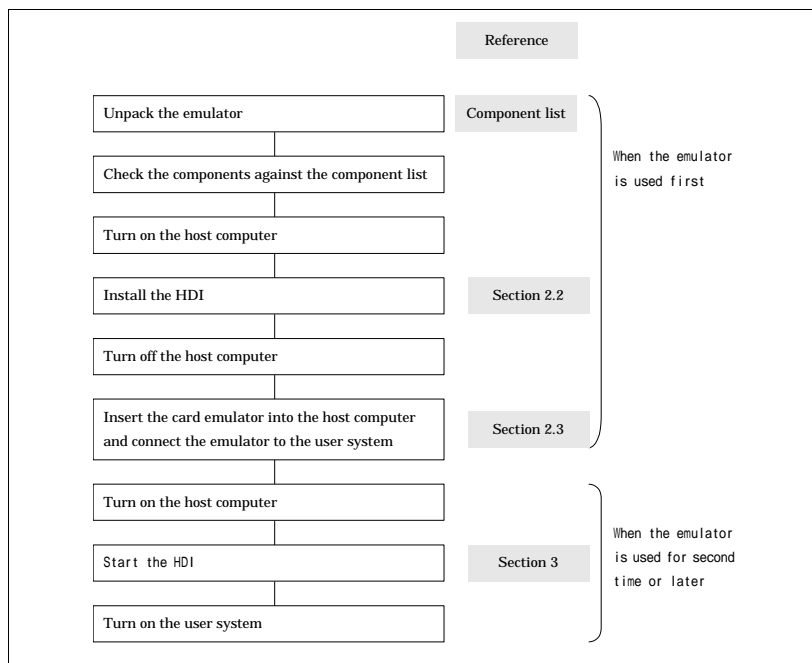


Figure 1 Emulator Preparation Flow Chart

2. HDI Installation

When the CD-R is inserted in the host computer's CD-ROM drive, the HDI installation wizard is automatically activated. To run the installation wizard when it has not been automatically activated, execute Setup.exe from the root directory of the CD-R.

Follow the cues given by the installation wizard to install the HDI.

Since hardware settings are also made during installation, the installation procedure differs according to the operating system or interface (PCI or PCMCIA) being used. Follow the installation steps carefully according to the environment you are using.

For the installation procedure, refer to section 2.2, HDI Installation, in the user's manual provided by the CD-R.

3. System Check

Execute the HDI program and check that the emulator operates correctly according to the following procedure:

1. Insert the card emulator into the host computer.
2. Connect the user system interface cable to the connector of the card emulator.
3. Connect the user system interface cable to the connector of the user system.
4. Power on the host computer and select [HDI for E10A H8S2339F]-[Hitachi Debugging Interface] from the [Start] menu.
5. The [Select Session] dialog box is displayed. Select the session for the target device. In this case, [H8S/2339F E10A Emulator] is selected.

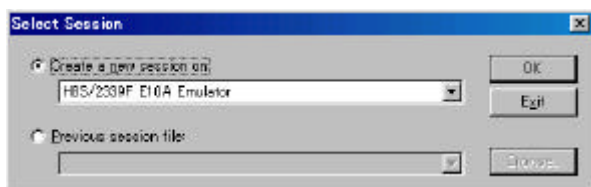


Figure 2 [Select Session] Dialog Box

6. The [E10A Driver Details] dialog box is displayed. With the [Driver] combo box, select the driver to connect the HDI with the emulator.
Select [E10A PC Card Driver5] when using the PCMCIA card emulator, and [E10A PCI Card Driver5] when using the PCI card emulator.

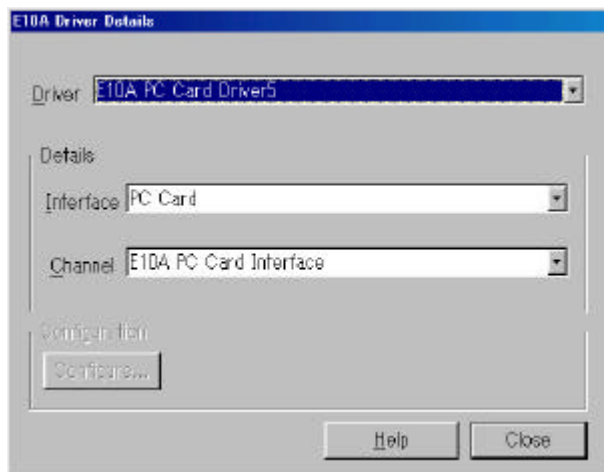


Figure 3 [E10A Driver Details] Dialog Box

7. The HDI window is displayed, and the dialog box is displayed as shown in figure 4.



Figure 4 Dialog Box of the Power-on Request Message

8. Supply power to the user system.
9. After the [System Clock] window appears, input the system clock frequency.

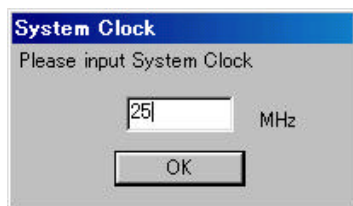


Figure 5 [System Clock] Dialog Box

10. Set any eight-digit numerical ID code as a security code for the flash memory.



Figure 6 [ID Code] Dialog Box

11. When "Link up" appears on the status bar, the user and emulator programs have been downloaded to the flash memory, and the HDI initialization is complete.



Figure 7 HDI Status Bar

Note: If an error message is displayed, refer to section 2.5, System Check, in the user's manual provided by the CD-R.

4. Environmental Conditions

Table 1 Environmental Conditions

Item	Specifications
Temperature	Operating: +10°C to +35°C Storage: -10°C to +50°C
Humidity	Operating: 35% RH to 80% RH, no condensation Storage: 35% RH to 80% RH, no condensation
Vibration	Operating: 2.45 m/s ² max. Storage: 4.9 m/s ² max. Transportation: 14.7 m/s ² max.
Ambient gases	There must be no corrosive gases present

Table 2 Operating Environments

Item	Description
Host computer	Built-in Pentium or higher-performance CPU (166 MHz or higher recommended); IBM PC or compatible machine with the PCMCIA TYPE II slot or PCI slot.
OS	Windows [®] 98, Windows [®] 2000, Windows [®] Millennium Edition, or Windows NT [®]
Minimum memory capacity	32 Mbytes or more (double of the recommended load module size)
Hard-disk capacity	Installation disk capacity: 10 Mbytes or more. Prepare an area at least double the memory capacity (four-times or more recommended) as the swap area.
Pointing device such as mouse	Connectable to the host computer; compatible with Windows [®] 98, Windows [®] 2000, Windows [®] Millennium Edition, and Windows NT [®] .
Power voltage	5.0 ± 0.25 V
Current consumption	HS2339KCM01H: 60 mA (max) HS2339KCI01H: 55 mA (max)
CD-ROM drive	Required to install the emulator and to refer to the manual provided by the CD-R.

- Notes:**
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5. Precautions on Using Emulator

5.1 Internal Flash Memory

For the H8S/2339EF, H8S/2329EF, H8S/2319EF (actual MCU) used by connecting the E10A emulator, there are some stresses because the flash memory write is repeated at emulation. Do not use the used H8S/2339EF, H8S/2329EF, H8S/2319EF for the mass production.

5.2 Note on Using the DMA Controller (DMAC) and Data Transfer Controller (DTC)

If the data transfer and break (address break and forced break) by the DMAC or DTC are contended, a normal break does not occur and a TIMEOUT error may occur. The TIMEOUT error may also occur when the [Memory -> Refresh], Step, Step In, Step Over, and Step Out functions are used during user program execution. If the TIMEOUT error occurs, select [Initialize] from the [File] menu to initialize the emulator.

5.3 Note on Using the WDT

If a reset occurs by an overflow of the WDT during user program halting, the emulator will not operate correctly. Do not use the reset function by the overflow of the WDT.