

### 1. Installation

**Do not connect the E10A USB port on the RDK until the HEW software has been installed.**

- Download the complete installation kit from: [www.America.Renesas.com/rdk7216install](http://www.America.Renesas.com/rdk7216install). For details on the individual components, refer to Chapter 2 of the book provided in the kit. The single install contains the following components:
  - HEW (High Performance Embedded Workshop) – IDE
  - SH Toolchain (C/C++ compiler, assembler, linker)
  - SH Debugger
  - Micrium Files including Example files, Port for SH2A-FPU, and  $\mu$ C/Probe
  - Manual Navigator with the following documents loaded: Schematics, 7216 Hardware Manual, SH2A Software Manual, YRDKSH7216 Users Manual
- Double-click on the installation executable to begin installation, and follow the prompts to install all the software components.
- After the completion of successful installation, click <Finish>.

### 2. Connection

- Ensure the DIP switch, SW1, on the RDK is set to the following configuration  
1: ON 2: OFF 3: OFF 4: ON (Debug/Run switch – to run a program without the debugger turn this switch OFF)
- Ensure the slider switch, SW6, located above the Ethernet Jack on the RDK is pushed in the direction of the arrow – away from the edge of the board.  
Note that this switch is the programming switch for the E10A USB Emulator that is integrated into the RDK. This switch should always remain in the normal position unless a problem arises with the debugger.
- Connect the E10A USB debugger port to a spare USB port on your PC using the cable provided in the kit.
- Connect the provided external 5V power supply to the RDK board at PWR connector.
- The 'Found New Hardware' Wizard will appear. Please follow the steps below to install the drivers. Note that administrator privileges are required for a Windows™ 2000/XP/Vista machine.

#### Windows™ 2000/XP

- Select option 'No, not this time' in "Found New Hardware" Wizard dialog, and click <Next> button.
- Verify the "Recommended" option is selected and click <Next>.
- If using Windows XP, go to step 'e'; otherwise, click <Next>.
- Click <Next> to install the driver.
- Click <Finish> to close the wizard.

#### Windows Vista

- Select "Locate and install driver software (recommended)".
- "User Account Control" dialog box will appear. If applicable, enter administrator password and click <OK>.
- Driver installation will start. After couple of minutes a "Windows security" dialog box will appear, select "install this driver software anyway".
- "Device driver software installed successfully" pop-up will appear in the windows toolbar and installation will complete.

*Note: The Windows driver signing dialog may be displayed. Please accept the driver to continue.*

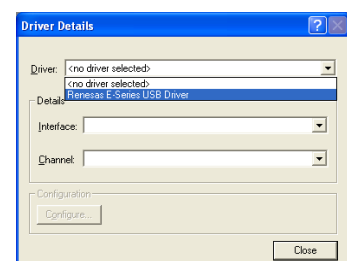
### 3. HEW Workspace and Demonstration Programs

HEW integrates various tools such as compiler, assembler, debugger and editor into a common graphical user interface. To learn more on how to use HEW, open the HEW manual installed on your computer (Start Menu > All Programs > Renesas > High-performance Embedded Workshop > Manual Navigator)

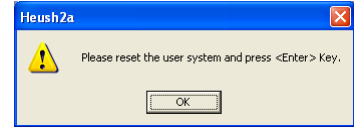
- Launch HEW from the Start Menu. (Start Menu > All Programs > Renesas > High-performance Embedded Workshop).
- In the "Welcome" dialog box: Verify "Browse to another project workspace" is selected. Click <OK>
- Navigate to HEW demonstration workspace provided with the RDK. By default, it is located in the  
C:\WorkSpace\Micrium\Software\EvalBoards\Renesas\YRDKSH7216\HEW directory
- In the "Select Emulator Mode" dialog choose "R5F72167AD" and ensure the "E10A-USB Emulator" radio button is selected, click <OK>.
- If this isn't the first time you have used the E10A module with this RDK, please skip to step 18.

#### First use of the E10A module

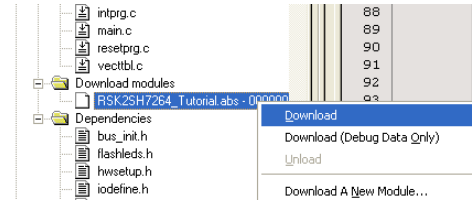
- The 'Please choose driver' dialog will be shown. Click <OK>
- The 'Driver Details' dialog will be shown, please select "Renesas E-Series USB Driver" as illustrated. The 'Interface' and 'Channel' items will be automatically populated. Click <Close>.
- The Firmware setup dialog will be shown warning you not to disconnect the USB cable until the firmware download is complete. Click <OK>.
- The firmware will be downloaded to the E10A module; this will take a few moments.





18. A box will appear; "Please reset the user system and press <Enter> key."
19. Press the reset (RST) switch on the board and press <Enter> (or click <OK>).
20. HEW will connect to the target system.
21. Please wait until the 'Connected' message appears in the HEW output window. The RDK board is successfully connected.



22. The workspace contains five demonstration programs that are described in detail in the accompanying book. By default, the project is set to uCOS-III-Ex1 and can be modified under the Project menu.
23. Right click on the <project\_name>.abs file listed in the download modules area of the Workspace view and select "Download". This will erase and download code in the flash.
24. The 'Downloading program' window will show the progress of the download, once completed it will disappear.



25. Click the <Reset – Go> button. 
26. The code will run and the RDK will run the demonstration program.
27. Click the <Stop> button. 
28. The code will stop and the source code will be opened at the current program counter.

#### 4. Next Step

After you have completed this quick start procedure, please review the demonstration and tutorial code that came with the kit. You can add projects to the current workspace by selecting (Project > Insert Project) from the main menu. The tutorials will help you understand the device and development process using Renesas Development Tools.

The Hardware manual supplied with this RDK is current at the time of publication. Please check for any updates to the device manual from the Renesas website at: [www.renesas.com/renesas\\_starter\\_kits](http://www.renesas.com/renesas_starter_kits)

#### 5. Renesas SuperH Compiler

The version of the compiler provided with this RDK is fully functional but time limited. You have 60 days to evaluate the full product before the compiler will limit the code linker to 256k bytes. Full licensed SH compiler versions are available from your Renesas supplier.

#### 6. Support

Online technical support and information is available at: [www.RenesasRuiz.com/rdk7216](http://www.RenesasRuiz.com/rdk7216)

Technical Contact Details

America: [techsupport.rta@renesas.com](mailto:techsupport.rta@renesas.com)

Europe: [tools.support.eu@renesas.com](mailto:tools.support.eu@renesas.com)

Japan: [csc@renesas.com](mailto:csc@renesas.com)

**Note on Autoupdate:** The Autoupdater is configured to automatically add itself to the Startup folder in the Windows Start Menu and use the registry defaults for access to the web. After restarting the machine the Icon will appear in the System Tray next to the clock. To change the settings or access Autoupdate, simply right-click on the icon and use the menu that appears.

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