E10A Troubleshooting Guide

Introduction

This document provides solutions to common E10A connection/debugging problems that users encounter. There are currently 4 versions of the E10A. The yellow-bead and red-bead E10A supports certain advanced debugging (AUD) features required by some of the higher end MCUs like the SH family.

Listed below are some of the common error messages displayed when the E10-A/ E10-A Lite is not operating properly. Screenshots of the error messages along with possible reasons and recommendations to resolve the issue is listed under each one.
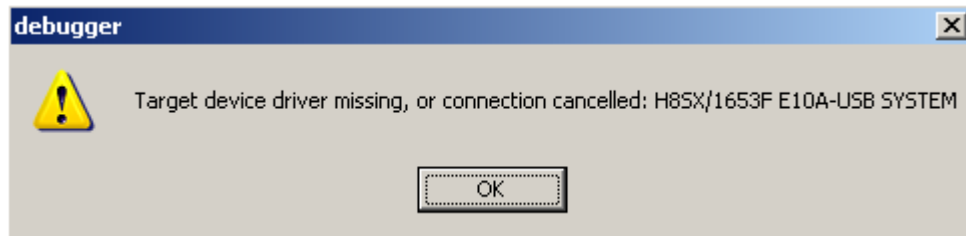
Contents

1.   When I try to connect, I get the "Target device driver missing" error.

A common problem is that Windows cannot find the driver. When this happens, you will see the following error dialogue:

The drivers are E1USB.inf, hmseusb.inf, E1USB.sys, and hmseusb.sys. The .inf files should be in C:\windows\inf and the .sys file should be in C:\WINDOWS\system32\drivers. If not, try re-installing the E10A software. If the drivers are in the proper folders, check that the PC USB port is operating properly (with other devices) and try connecting the E10A directly to the PC if you are using a hub.

You will also get this message if you abort an E10A connection.

2.   When I try to connect, I get the "Product currently connected is not an E10A Emulator" message.

This error occurs when you do not have the proper version of firmware installed for the HEW E10A component. When switching the E10A between different families (H8S, H8SX, SH, SH2 etc), you need to update the firmware on the E10A to support that family by running the Emulator Setup tool.
You may also have an old version of the HEW E10A debug component. Run the auto-update program to get the latest software or go to www.america.renesas.com and search for E10A, download and install updates

The Emulator Setup tool can be found in Start>>All Programs>>Renesas>> High Performance Embedded Workshop>>Setup Tool for E10A-USB Emulator

3.   Why do I get the "Emulator firmware version incorrect" message?
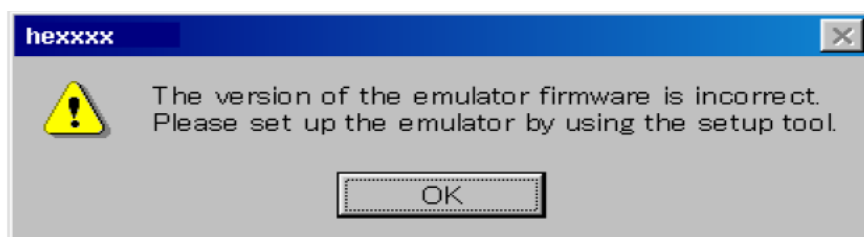
This can be caused by upgrading the HEW E10A components, but not running the Emulator Setup Tool (or moving the E10A to a PC with a different version of the HEW E10A components). Run the Emulator Setup Tool to update the firmware. The Emulator Setup tool can be found in Start>>All Programs>>Renesas>> High Performance Embedded Workshop>>Setup Tool for E10A-USB Emulator.

This error could also occur is you are using an E10A that has a newer version of the firmware while your PC has an older version. In this case you can either upgrade the E10A software on your PC, or "update" the E10A as explained in the previous paragraph. You can do this by downloading the latest version from the Renesas website.

4. What does a "JTAG connector disconnected" message mean?
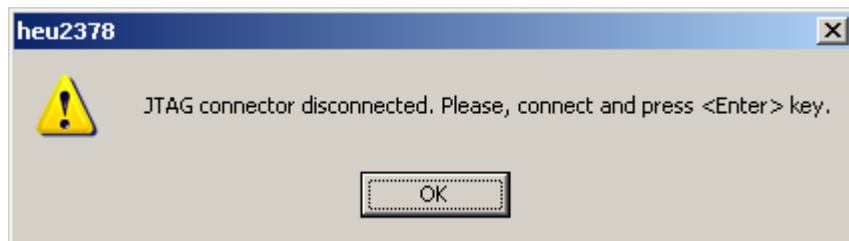
This error typically occurs if the JTAG connector from the E10A is not connected to the MCU. Ensure that the E10A is connected to the target device. You may have to reinitiate the connection sequence.
If you are not using a Renesas RSK or EDK, then ensure that the E10A connector to the device is connected according to the instructions in the E10A "Supplementary instructions on using the E10A specific to the X family"; X being any MCU/MPU family.
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5. Why do I get the "Error H-UDI boot" error message?
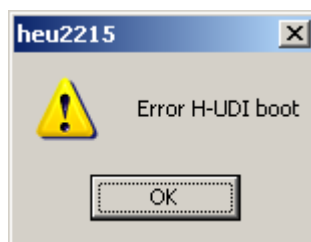
This error could occur if the EMLE pin on the MCU is not pulled down when using the E10A. Check the device manual and board schematic to pull down this pin before reconnecting. This error message is also displayed when aborting an E10A connection sequence.

6. Why is there a "No communication device found" error even when the E10A is connected?
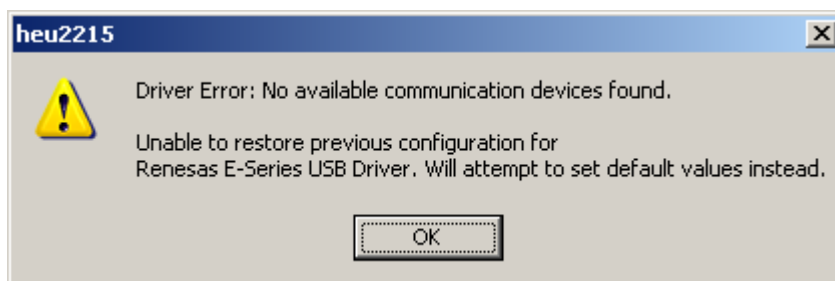
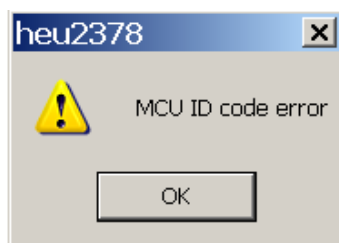This error occurs when the E10A is not connected to the PC (or damaged), or it was previously disconnected in an unintended fashion. You can recover from this by connecting the E10A and target, wait a few seconds to be sure the devices has enumerated, and click <OK>. HEW will ask you for the driver, and then connection will proceed normally.

7. Why does an "MCU ID code" error occur?

This error occurs when the wrong MCU is selected in the E10A connection window below.
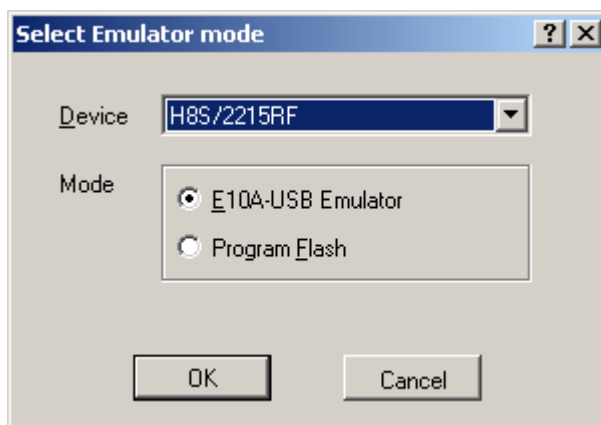
Select the right MCU from the list above when attempting to reconnect. If your target MCU does not show up in that list then create a new session and ensure that you have selected the right CPU family and CPU series. The CPU series can be indentified from the device hardware manual. If the target device is still not

available, then the current version of the E10A software installed on the PC does not support this particular device. Update the E10A software using the Auto-Updater utility or by downloading the latest version from the Renesas website.

8.   This guide did not answer my problem.

If this guide or the FAQ did not fix your problem then please contact us by going to the Support section of www.renesas.com and clicking on Technical Support. You will find a form that you can fill out and send in for support. Remember when filling in the form to be as specific as possible and to always include what version of the tools you are using.

The following are debugging error messages that show up when using the E10A

9.   What is a "Program Counter Odd" error?

Typically you get this message if you hit "GO" (or Reset-Go) but have not downloaded any modules (*.abs, *.mot) to the MCU. To recover from this you can try to download the module(s) and hit "Reset-Go", but in many cases, you will need to close the HEW debug session, disconnect the E10A and power down the target and reconnect.

10. What is a "Stack Pointer Odd" error?

This can be cause by the same error condition above, or if the program has run away. You can try to recover the same way as above but the most effective solution is to open the register window and change the stack pointer value to an even number. On most H8 devices, the stack pointer is ER7.

11. Why can I not set more that a few software breakpoints when debugging?

The number of software breakpoints supported is limited and vary from device to device. Hardware breakpoints can be used for normal break operation.

12. Why is there a "Communication Timeout" error when running my program?

This error occurs when the user program is in a runaway state and the E10A is unable to communicate with the device. The error could also occur if the E10A is disconnected from the device while debugging.
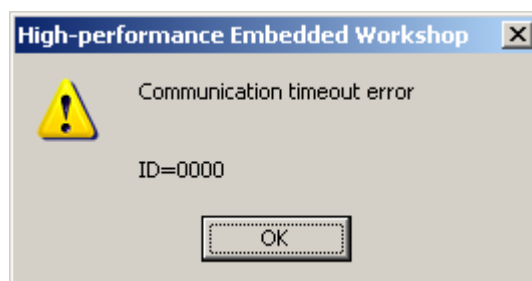
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