# DEMO9RS08KA2

# Quick Start Guide

Rev. 1.0

## 0. Introduction

This quick start guide will walk you through setting up your demo board, connecting it to the PC, and launching the provided example. For more information, please read the demo board's user's manual.

## 1. Run the Factory Programmed Example (Standalone Mode)

1. Ensure that the "POWER SEL" jumper selects the "UNREG" position.
2. Ensure that the "VDD" jumper selects the "ENABLE" position.
3. Ensure that all of the "I/O ENABLE" jumpers are inserted.
4. Power on the Demonstration Board through the 12 V DC plug-in power supply.
5. The green "POWER" LED on the board should turn on.
6. Depending on the temperature sensed by the NTC network, the "LED0", "LED1" and "LED2" LEDs will turn on as illustrated below.

| Sensed Temperature | LEDs |
|---|---|
| < 10°C | ○ LED2<br>○ LED1<br>○ LED0 |
| between 10°C and 20°C | ○ LED2<br>○ LED1<br>● LED0 |
| between 20°C and 30°C | ○ LED2<br>● LED1<br>● LED0 |
| > 30°C | ● LED2<br>● LED1<br>● LED0 |

7. Press the "SW0" push-button. The "LED0", "LED1" and "LED2" LEDs will blink.

## 2. Host Mode

The same example above can be run from the host PC, with the exception that the "LED0" LED is not used (since this line is shared with the BKGD line needed for BDM communication). To do this, the CodeWarrior Development Tools and the SofTec Microsystems Additional Components must be installed first.

### Install CodeWarrior Development Studio

To install the CodeWarrior Development Studio, insert the CodeWarrior CD-ROM into your computer's CD-ROM drive. A startup window will automatically appear. Follow the on-screen instructions.

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## Install SofTec Microsystems Additional Components

The SofTec Microsystems Additional Components install all of the other required components to your hard drive. These components include:

- The Demonstration Board's USB driver;
- The software plug-in for CodeWarrior;
- Examples;
- Demonstration Board's user's manual;
- Demonstration Board's schematic;
- Additional documentation.

To install the SofTec Microsystems Additional Components, insert the SofTec Microsystems **"System Software"** CD-ROM into your computer's CD-ROM drive. A startup window will automatically appear. Choose **"Install Instrument Software"** from the main menu. A list of available software will appear. Click on the **"Additional Components"** option. Follow the on-screen instructions.



**Note:** *to install the Additional Components on Windows 2000 or Windows XP, you must log in as Administrator.*

## Step-By-Step Tutorial

1. Set up the board so that it works in host mode:
   - Make sure that the two "ENABLE" jumpers in the "USB TO BDM INTERFACE" section are inserted;
   - Make sure that the "POWER SEL" jumper is in the "USB" position;
   - Make sure that the "VDD" jumper selects the "ENABLE" position;
   - Connect the host PC to the board through the provided USB cable.
2. Ensure that the Demonstration Board is connected to the PC (via the USB cable) and that the board is powered on.
3. Start CodeWarrior by selecting it in the Windows Start menu.
4. From the CodeWarrior main menu, choose **"File > Open"** and choose the **"\Program Files\Freescale\CW08 V5.1\(CodeWarrior Examples)\RS08\Evaluation Board Examples\DEMO9RS08KA2\Asm\Demo\Demo.mcp".**
5. Click **"Open"**. The *Project Window* will open.
6. The code of this example is contained in the **"main.asm"** file. Double click on it to open.
7. From the main menu, choose **"Project > Debug"**. This will compile the source code, generate an executable file and download it to the demo board.
8. A new debugger environment will open. From the main menu, choose **"Run > Start/Continue"**. The program will be executed in real-time.
9. From the main menu, choose **"Run > Halt"**. The program execution will stop. The next instruction to be executed is highlighted in the *Source* window.
10. From the main menu, choose **"Run > Single Step"**. The instruction highlighted in the *Source* window will be executed, and the program execution will be stopped immediately after.
11. From the main menu, choose **"Run > Start/Continue"**. The application will restart from where it was previously stopped.

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