

# DEMO908JL16

## Quick Start Guide

Rev. 1.0

### 0. Introduction

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

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

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1. Ensure that the "OSC ENA", "PTD5 ENA", "PTD4 ENA", "PTD3 ENA", "PTA1 ENA" and "PTA0 ENA" jumpers are inserted.
2. Ensure that all of the accelerometer enable jumpers ("PDT2", "PTD1", "PTD0", "PTA7", "PTA5" and "PTA4") are inserted.
3. Make sure that the "POWER SEL1" jumper selects the "UNREG" position and power on the Demonstration Board through either the 12 V DC plug-in power supply.
4. The green "POWER" LED on the board should turn on.
5. Press the "SW0" push-button. Then, by rotating the potentiometer, you affect the results of the A/D conversion, which in turn varies the blinking frequency of the "LED1" and "LED2" LEDs.
6. Press the "SW1" push-button. Then, by rotating the board around its x, y or z axes, you affect the accelerometer reading along that axis, and the "LED1" and "LED2" LEDs turn on, off or blink depending on the board's position.

### 2. Host Mode

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The same example above can be run from the host PC. 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 Special Edition, insert the CodeWarrior CD-ROM into your computer's CD-ROM drive. A startup window will automatically appear. Follow the on-screen instructions.

#### 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. Make sure that the “POWER SEL1” jumper selects the “USB”.
2. Ensure that the Demonstration Board is connected to the PC (via the USB cable) and that the board is powered. The first time the Demonstration Board is connected to the PC, Windows recognizes the instrument and starts the “**Found New Hardware Wizard**” procedure, asking you to specify the driver to use for the instrument. Follow the on-screen instructions.
3. Start CodeWarrior for HC(S)08 Development Studio by selecting it in the Windows Start menu.
4. From the CodeWarrior main menu, choose “**File > Open**”. Select the “**Demo.mcp**” workspace file that is located under the “**\Program Files\SofTec Microsystems\ DEMO908JL16\CodeWarrior Examples\C\Demo**” directory. Click “**Open**”. The *Project Window* will open.
5. The C code of this example is contained in the “**main.c**” file. Double click on it to open it.
6. From the main menu, choose “**Project > Debug**”. This will compile the source code, generate an executable file and download it to the demo board.
7. A new debugger environment will open. From the main menu, choose “**Run > Start/Continue**”. The program will be executed in real-time.
8. From the main menu, choose “**Run > Halt**”. The program execution will stop. The next instruction to be executed is highlighted in the *Source* window.
9. 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.
10. From the main menu, choose “**Run > Start/Continue**”. The application will restart from where it was previously stopped.



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