DEMO9RS08KB12 QUICK START GUIDE

Introduction and Default Settings

The DEMO9RS08KB12 features the MC9RS08KB12 microcontroller, a low-cost, small pin count, high performance device for home appliances and medical equipment applications. This device consists of standard on-chip modules including a highly efficient, version 2, RS08 CPU core of which supports a single global interrupt vector, up to 254 bytes RAM, up to 12 KB flash, two 8-bit modulo timers (MTIM), one 12-channel 10-bit analog-to-digital converter (ADC), one 2-channel 16-bit timer/PWM (TPM), one inter-integrated circuit bus module (IIC), one keyboard interrupt (KBI), one analog comparator (ACMP), and one serial communication interface (SCI).

The board is pre-loaded with a demonstration application to ensure proper functionality and to aid the end-user in application development.

Default jumper positions for the DEMO9S08LH64 and DEMMO9S08LL64 are shown below.
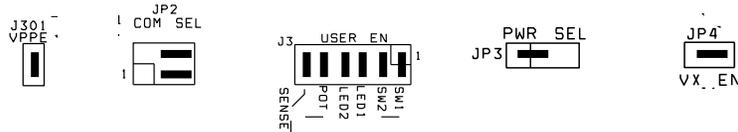
Figure 1: DEMO9RS08KB12 Default Option Settings

Install CodeWarrior Development Studio

The DEMO9RS08KB12 ships with the latest version of CodeWarrior Development Studio for Microcontrollers Special Edition. CodeWarrior Development Studio is a complete Integrated Development Environment (IDE) that provides a highly visual and automated framework to accelerate the development of the most complex embedded applications.

> **NOTE:**
> CodeWarrior Development Studios must be properly installed before attempting to connect the target board to the host PC. Otherwise, the necessary USB drivers will not be available and the host PC will not recognize the board.

Email: www.axman.com

Support: support@axman.com

Install CodeWarrior for Microcontrollers:

Insert the CodeWarrior Development Studio for Microcontrollers CD into a CD / DVD drive. The installation program will start automatically. If the installation fails to start, start the installation program manually. Open Windows Explorer and navigate to the CD / DVD drive where the CodeWarrior disk is inserted. Double click on Launch.exe to launch the installer. Follow the on-screen instructions to install the CodeWarrior IDE and integrated programmer.

To Launch the Demo Program:

The DEMO9RS08KB12 ships with a demonstration program preloaded into on-chip FLASH memory. The demonstration program converts an analog reading from the POT and the Light Sensor to control the LEDs. The internal TPM is used to flash and LED. ASCII text is echoed to the terminal.

1. Verify the option jumpers are set in default positions. Refer to Figure 1 above.
2. Connect the included A/B USB cable between an open USB port on the host PC and the USB connector on the target board. Follow the on-screen instructions to install the necessary USB drivers.
3. Rotate the POT fully in both directions. LED1 and LED2 combine to display the POT position.
4. Press SW1. Cover and uncover the light sensor at RZ1. LED1 and LED2 combine to display ambient light incident on the sensor.
5. Connect a serial cable to the DB9 at J4. Open a terminal program such as AxIDE, and configure for 19200, 8, N, 1. Text typed in the terminal window will echo to the screen

The Quick Start CodeWarrior Project may be downloaded from the Axiom Manufacturing web site at www.axman.com/support.

Troubleshooting

If the demonstration application fails to function as indicated above, please follow the steps below before contacting Freescale Semiconductors. Please refer to the TIC card included in the DEMO9RS08KB12 kit for contact information.

- Ensure the option jumpers are set to default positions. Refer to Figure 1 above.

- Ensure the correct version of CodeWarrior is installed and that the KB12 Service Pack is installed

- Ensure D300 and VDD LED's are both ON

If the above Troubleshooting Tips fail to correct the problem, please contact Freescale Semiconductors for further assistance. Refer to the Technical Information Card (TIC) included in the kit for contact information. The user may also contact Axiom Manufacturing directly at support@axman.com.