

# DEMOAX9S12 QUICK START GUIDE

## Introduction and Default Settings

The DEMOAX9S12 supports application development and debug of the MC9S12P128, MC9S12XEP100, and MC9S12XS128 MCU on a single, low-cost board. Of course only 1 MCU may be installed. The supported MCUs target generic automotive applications requiring CAN or LIN/J2602 communications. This guide will show how to quickly connect the board to a host PC, and execute a demonstration application preloaded into FLASH memory. The figure below shows default jumper positions for the DEMOAX9S12.

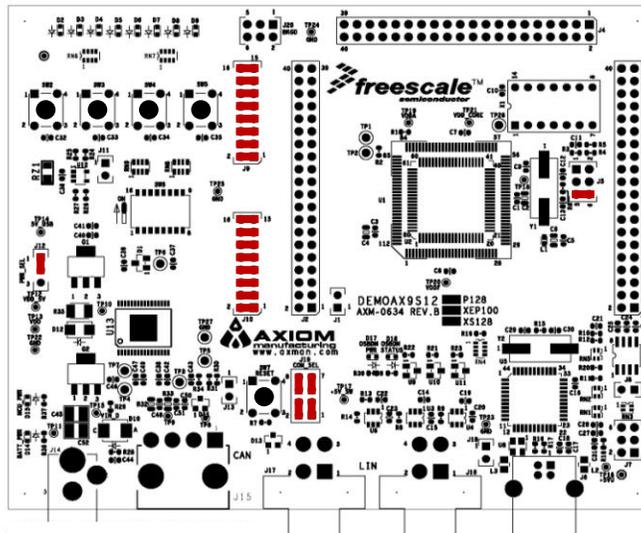


Figure 1: DEMOAX9S12 Default Option Settings

## Integrated OSBDM

The DEMOAX9S12 board applies the integrated, Open-Source BDM (OSBDM) to support application development and debug support. The OSBDM may also be used to apply power to the target module; further simplifying development and debug. However, CAN and LIN functionality is not supported when power solely from the OSBDM. The DEMOAX9S12 board ships with CodeWarrior Development Studio for the S12(X), Version 5.1 fully supporting the OSBDM.

## Install CodeWarrior Development Studio

Before connecting the DEMOAX9S12 to the host PC, install the CodeWarrior Tool Suite. Follow directions included with the product.



**NOTE:**

Install CodeWarrior Development Studio before connecting 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.

**To Launch the Demo Program:**

The DEMOAX9S12 ships with a demonstration program preloaded into on-chip FLASH memory. The demonstration program uses the Push-Button switches and LEDs.

1. Verify the option jumpers are set in default positions. Refer to Figure 1 above.
2. Connect the a 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. **NOTE:** CodeWarrior for S12 must be installed before connecting the DEMOAX9S12.
3. After the OSBDM successfully enumerates, LEDs at D15, D16, and D17 will turn ON.
4. User LEDs at D6 – D9 will turn ON and move in an alternating pattern: D6, D8 OFF; D7, D9 ON then reverse.
5. Press each push-button switch. The associated LED will turn ON. The LED remains ON until a subsequent switch press.

The Quick Start CodeWarrior Project may be downloaded from the Axiom Manufacturing web site at [www.axman.com/support](http://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 Technical Information Card (TIC) card included in the TWR-S12G128 kit for contact information.

- Ensure the option jumpers are set to default positions. Refer to Figure 1 above. Specifically, ensure the PWR\_SEL option jumper is set correctly.
- Ensure the MCU\_PWR LED (D15) is on.
- Ensure CodeWarrior is installed.

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. Assistance may also be found by contacting Axiom Manufacturing at [support@axman.com](mailto:support@axman.com).