DASHBOARD CLUSTER DEMO FOR MC9S12HY64 QUICK START GUIDE

Introduction and Default Settings

The Dashboard Cluster Demo for HY64 simulates an automotive instrument cluster designed to showcase the Freescale MC9S12HY64 MCU. The MC9S12HY/HA family is an automotive, 16-bit microcontroller product line that is specifically designed for entry level instrument clusters.

The Dashboard Cluster Demo applies CAN, LIN/J2602, Stepper Motors, and loud-speaker to simulate the auto-motive cluster panel. The board ships with a demo application loaded to exercise various peripherals.

This quick start guide will show how to connect the target board to a host PC, install the correct version of Code-Warrior Development Studio, and execute a simple demonstration program loaded in FLASH memory.

Install CodeWarrior Development Studio for or Microcontrollers, Special Edition

The Dashboard Cluster Demo ships with CodeWarrior Development Studio for HCS12(X), a complete Integrated Development Environment (IDE) that provides a highly visual and automated framework to accelerate the devel-opment of the most complex embedded applications. To install the IDE, refer to the "CodeWarrior Development Studio" DVD case and follow the steps in the included Quick Start Guide.

To Launch the Demo Program:

The Dashboard Cluster Demo ships with a simple demonstration program pre-loaded into FLASH memory. The demo program exercises the motors, LCD, and push-buttons. Follow the steps below to execute the demo appli-cation.

1. Apply power to the barrel connector at J11 using the included power supply. Move the toggle switch at SW3 to the ON position.

2. Notice the motor pointers illuminate and the +5V, HI, LEFT, and RIGHT LEDs are ON. All LCD segments are illuminated

3. All motor pointers move to "0" position and begin sweeping clock-wise then counter clock-wise simultaneous-ly.

4. Press SW6, the MENU button. Each motor moves to the "0" position then alternately rotates clock-wise then counter clock-wise individually.

Web Site: www.axman.com

Support: support@axman.com

5. Press MENU. LCD COMPASS and GEAR SHIFT animate. Compass pointer moves in clock-wise direction. GEAR SHIFT selector moves from left to right then repeats.

6. Press MENU. TEMP digits in upper-left corner begin to count up. Text around the TEMP digits flash alternately.

7. Rotate potentiometer at RV1. Notice LCD slider bars under TEMP and SYSTEM VOLTAGE change as the pot is rotated.

8. Press MENU. ODOMETER digits and text in lower-left corner of LCD animate.

9. Press MENU. Multi-purpose digits and text in upper- corner of LCD animate. Status indicators at lower-right corner also animate.

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 Technical Information Card (TIC) card included in the Dashboard Cluster Demo kit for contact information.

• Ensure the correct version of CodeWarrior is installed and that the HY/HA Service Pack is installed

• Ensure the included power supply is connected properly and is providing +12V output.

• Ensure SW3 is in the ON position.

• Ensure SW1 (RESET) push-button is not stuck in the closed position.

If the above Troubleshooting tips fail to correct the problem, please contact Freescale Semiconductors for further assistance. Refer to the included in the kit for contact information. Assistance may also be found by contacting Axiom Manufacturing directly at support@axman.com.