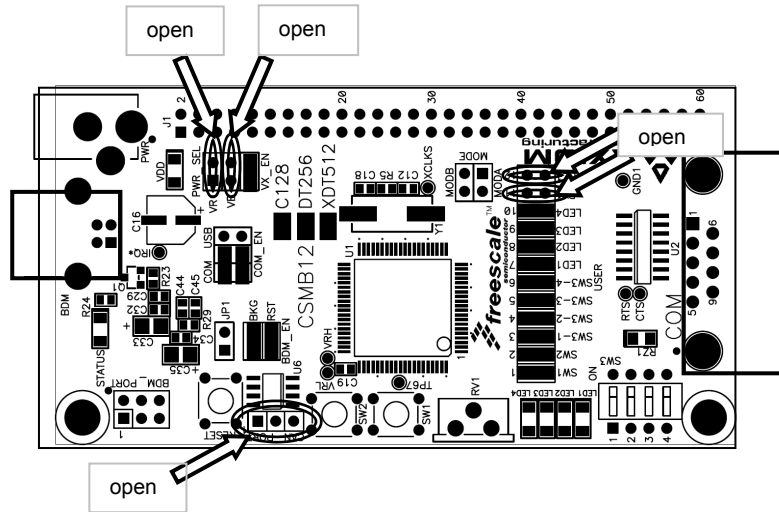


## CSMB12 module

NOTE 1: The PCB trace near LV1 on the *back* of the module must be cut carefully using a knife. This disables the module's power watchdog circuit.

NOTE 2: For proper use on the ECEbot, the pin locations marked with arrows below should be OPEN. All other pins should have a shorting jumper installed with the indicated orientation.



### **Standalone FLASH programming using CodeWarrior and USB**

Start Codewarrior IDE software on the PC, and load the "ecebot\_2008b" project.

Then for each module:

- (1) MOVE THE CSMB12 POWER JUMPER from the "VX\_EN" to the "VB" POSITION.
- (2) Attach the USB cable from the PC to the CSMB12 USB connector. The computer should recognize the new hardware and the module's VDD and STATUS lights should come on.
- (3) In CodeWarrior, press the green "debug" button. This will load the "True-Time Simulator & Real-Time Debugger" and automatically erase and reflash the CSMB12 module.
- (4) Close the "True-Time Simulator" window, then UNPLUG the module from the USB cable.
- (5) MOVE THE POWER JUMPER from "VB" back to the "VX\_EN" POSITION.

To program another microcontroller, go back and repeat steps (1) through (5). It is NOT necessary to reset or restart the main CodeWarrior software between each controller.

## ***FLASH programming using CodeWarrior and USB when the module is installed on an ECEbot***

Start Codewarrior IDE software on the PC, and load the "ecebot\_2008b" project.

- (1) **TURN THE ECEBOT OFF, and LEAVE IT OFF!!**
- (2) MOVE THE CSMB12 POWER JUMPER from the "VX\_EN" to the "VB" POSITION.
- (3) Attach the USB cable from the PC to the CSMB12 USB connector. The computer should recognize the new hardware and the module's VDD and STATUS lights should come on.
- (4) In CodeWarrior, press the green "debug" button. This will load the "True-Time Simulator & Real-Time Debugger" and automatically erase and reflash the CSMB12 module.
- (5) Close the "True-Time Simulator" window, then UNPLUG the module from the USB cable.
- (6) MOVE THE POWER JUMPER from "VB" back to the "VX\_EN" POSITION.