AMSVU User Manual

Accumulator Management Verification Unit

Last Updated 12/19/15
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Overview

The purpose of the AMSVU is to simplify the programming and verification proceedure. The system is capable of detecting the address of an unknown board, setting a new the adress, and running a board through a predefined test proceedure.

AMS Board Commands

COMMAND	ENUM	DESCRIPTION
RESET_BY	0x00	Clear bypass mode, and reset the bypass timer.
SET_BY	0x01	Place device in bypass mode, and reset the bypass timer.
PANIC	0x02	Rapidly blink LED at a period of ¼ second.
RELAX	0x03	Exit panic mode, the ACT led will stop blinking
SET_ADDR	0x04	Set device I2C address
SET_BYTIME	0x05	Set the bypass timer value (Period = ¼ * (timer value) seconds)

AMS Board Verification

STEP 1)
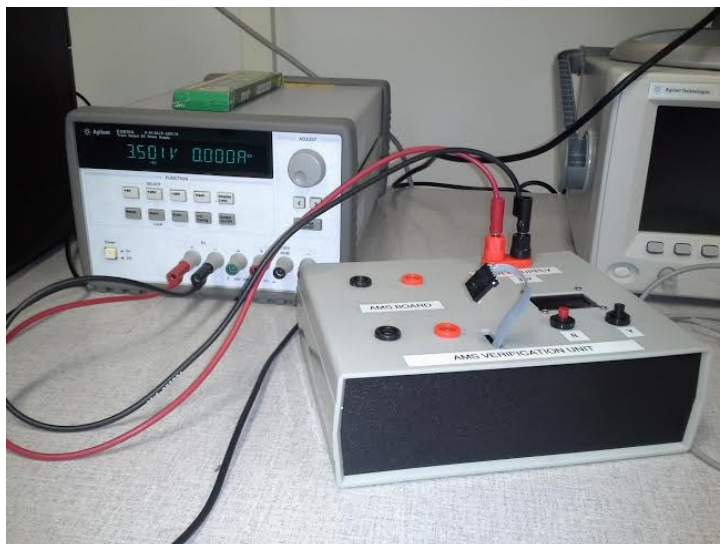
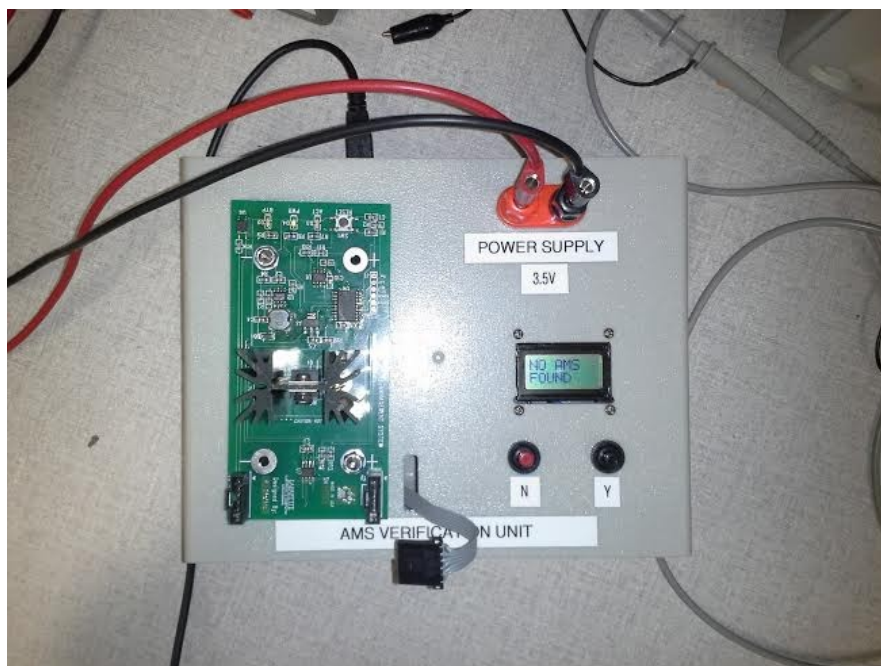
The AMSVU must be supplied with power from a bench top power supply. The recommended voltage and current limits are 3.5V and 3.00A respectively.

STEP 2)

The Ardunio microcontroller found within the AMSVU must be powered from either a USB port, or DC jack. Ensure power is applied to one of these sources before continuing.

STEP 3)

Place an AMS board into the banana jacks of the AMSVU. Ensure that the positive and negative terminals of the AMS are connected properly. The Molex SL connectors on the AMS board should be on the side closest to the operator. Connect the I2C connector to the AMS board as shown above.

STEP 5)
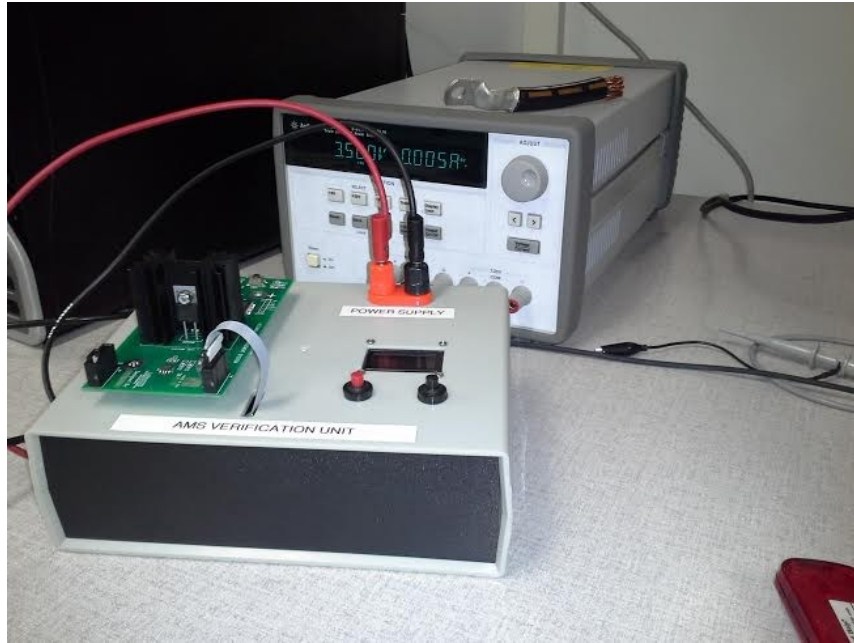
Connect the I2C connector to the AMS board as shown above.

STEP 6)

You should now see the text "AMS 0x__ VERIFY?" displayed on the lcd screen, and the ACT led blinking rapidly. The address displayed on the screen corresponds to the address of the board currently attached.

If you do If you would like to verify the AMS board, press the "Y" button, and follow the directions on the screen. Answer each question with Y for YES, and N for NO.

STEP 7)

Once tests are complete, you will be returned to the main screen, which displays "AMS 0x__ VERIFY?". You can either run tests again by pressing the Y button, or by pressing the N button you can change the address of the board.

OPTIONAL STEP 8)

To change the address of the AMS board, press the Y button when the screen shows "CHANGE ADDR?".

This will cause a new screen to appear displaying "SET ADDR NEW 0x__"

Pressing the N button will increment the address value

Pressing the Y button will write the address to the board

Once the operation is complete you should see the new address on the main screen.