

## ADDING A REFERENCE TRIM SIGNAL TO A 1000 SERIES VFD

Below are the steps and parameter changes required to add a +/- trim signal to a 1000 series YASKAWA VFD. This example uses a 2K ohm potentiometer and the supply voltage from the VFD to produce a 0-10Vdc signal.

**\*NOTE: Never make any connections to a VFD with main power to the drive turned on.**

1. Remove cover of VFD to expose the low voltage control terminals
2. Locate DIP switch "S1" and move it to the left for V (voltage). Default is I (current)
3. Connect the pot supply wire to terminal "V+" on the VFD
4. Connect the pot common (0v) wire to terminal "AC" on the VFD
5. Connect the pot signal/wiper wire to terminal "A2" on the VFD
6. Replace the VFD cover
7. Turn main power on to the VFD
8. Using the keypad of the VFD, navigate to the parameter section of the VFD
9. Go to parameter "H3-09" (Terminal A2 signal level) and set it to a value of "0"
10. Go to parameter "H3-10" (Terminal A2 Function selection) and set it to a value of "1"
- <sup>(1)</sup>11. Go to parameter "H3 -11" (Terminal A2 GAIN) and set it to a value of "110"
- <sup>(1)</sup>12. Go to parameter "H3 -12" (Terminal A2 BIAS) and set it to a value of "90"

<sup>(1)</sup> Setting H3-11 to 110 and H3-12 to 90 will result in a +/- 10% trim of the commanded frequency reference and an overall swing of 20%. When the trim pot is set to the halfway point (50%), the trim pot will have no effect on the commanded frequency reference. Turning the pot clockwise (UP) from the halfway point will ADD to the commanded frequency reference, and turning the pot counter-clockwise (DOWN) from the halfway point will SUBTRACT from the commanded frequency reference.

If the swing (+/- trim) needs to be adjusted, simply change H3-11 and H3-12 to the desired % as detailed above.

**APPLICATION NOTE**

**[www.emsales.com](http://www.emsales.com)**