Programming the AH-Elite Air Handler Control to Work With the VSD6X-M

Programming the AH-Elite Air Handler Control

1. Follow the VSD6X-M wiring diagram on how to incorporate it to the AH-Elite air handler control board and the fan. **Pay close attention to the caution, warning, and important notes on the wiring diagram.**
2. After wiring the VSD6X-M to the AH-Elite control board and the fan, **make sure the AC voltage selector is selected to match the power input to the AH-Elite air handler control and the fan.**
3. Apply power to the air handler. Using the air handler display panel, press the ON/OFF button to switch the unit to the off mode.
4. **There are 3 programmable parameters (P1, P2, and P14) that need to be set on the air handler contro**l. Refer to the AH-Elite control operational manual if necessary. Go to the Programming mode by pressing the Mode, Up, Down and Mode buttons in this sequence. The control is in the programming mode when "**P1**" is displayed followed by a 2 digit number, which represents what the high fan speed limit value is currently set on parameter 1. Press the Up or Down buttons to change it to "**65**".
5. Press the Mode button to advance it to **P2** (parameter 2), and "P2" followed by a 2 digit number should be displayed, which represents what the low fan speed limit value is currently set at. Press the Up or Down buttons to change it to "**40**".
6. Press the Mode button to advance it to **P14** (parameter 14), and "P14" followed by "SP" or "SC" should be displayed. If "SP" is displayed, it is set correctly and press the ON/OFF button to exit the program mode. If "SC" is displayed, press the Up or Down button to change it to "**SP**" and press the ON/OFF button to exit the program mode.
7. To make sure everything is set up correctly, test the fan speeds by pressing the Fan button once, the fan should be on low speed. Press the Fan button again, and the fan should be on medium speed. Press the Fan button again, and the fan should be on high speed.
8. If you feel that the high fan speed is too high or not high enough or the low fan speed is too low or not low enough, you can always go back to P1 (parameter 1) to increase or decrease the value for high speed, and you can go back to P2 (parameter 2) to increase or decrease the value for low speed.

Programming the VSD6X-M
Danger: The VSD board contains high voltage. Only touch the brown buttons on the board.
The VSD6X-M is factory programmed to work with the AH-Elite air handler control. So, no additional programming on the VSD6X-M is necessary. For troubleshooting purposes in the field, there might be a need to double check the parameter settings or change them if necessary. With the electrical box cover removed, you will notice that there are 2 brown buttons (labeled S1 and S2) and a 1 digit red LED display. To make sure you are looking at the display correctly, make sure the period is at the lower right hand corner of the 8 segments LED when facing the display.

Below are explanation and programming of each parameter on the VSD6X-M:
Pressing both buttons (S1 and S2) at the same time selects a parameter to adjust. Each double button press will advance you to the next selected parameter. The parameters as shown on the display are -, C, E, o, L, H, l, h, P, d, A, and S.

Parameters
"**-**" = Indicates that power is on and unit is in normal operation

"**C**" = allows you to manually control the fan speed for testing. Press S1 to increase the speed, or S2 to decrease the speed. The speed value are indicated in hex number from minimum to maximum speed as 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, and 10. Press both buttons to exit this manual mode.

"**E**" = This is factory programmed . Indicates which fan operating mode the unit is currently set at. There are two modes, "E" (voltage amplitude control) or "F" (frequency control). Press and hold either button to toggle to "E" or "F".

"**o**" = This is factory programmed. Allows you to set the fan signal input voltage that corresponds to fan off mode. First, turn the fan off using the air handler control. Press both buttons until "o" is displayed. Press and hold button S2 until display flashes, which saves the fan off voltage level in memory.

"**L**" = This is factory programmed. Allows you to set the fan signal input voltage that corresponds to low fan speed. First, manually turn the fan on at low speed using the air handler control, assuming you have already set the desired low fan speed (P2) on the air handler control as described above. Press both buttons until "L" is displayed. Press and hold button S2 until display flashes, which saves the low fan speed voltage level in memory.

"**H**" = This is factory programmed. Allows you to set the fan signal input voltage that corresponds to high fan speed. First, manually turn the fan on at high speed using the air handler control, assuming you have already set the desired high fan speed (P1) on the air handler control as described above. Press both buttons until "H" is displayed. Press and hold button S2 until display flashes, which saves the high fan speed voltage level in memory.

"⌐"= This is factory programmed and should be set at 0. Allows you to limit how low the fan output will be at low fan speed by changing the low speed value indicated in hex number from 0 to F (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F). Press and hold S1 to increase the value, or S2 to decrease the value. Press both buttons to exit this parameter.

"**h**" = This is factory programmed and should be set at 10. Allows you to limit how high the fan output will be at high fan speed by changing the high speed value indicated in hex number from 0 to 10 (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, 10). Press and hold S1 to increase the value, or S2 to decrease the value. Press both buttons to exit this parameter.

"**P**" = This is factory programmed and should be set at 0. Allows you to increase or decrease the power output to the fan. If multiple fans are connected to the output, you may need to increase the power output by increasing the power value between 0 and 9 (0,1, 2, 3, 4, 5, 6, 7, 8, 9). Press and hold S1 to increase the value, or S2 to decrease the value. Press both buttons to exit this parameter.

"**d**" = Displays the current output fan speed value as a hex number between 0 and 10 (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, 10).

"**A**" = Displays the current input fan speed value as a hex number between 00 and FF. "00" represents 0 volt input. "FF" represents 240 volt input. Press both buttons to exit this parameter.

"**S**" = Displays the software program version on this unit, for example "14".