Setting Up the PLTX-HV, NPLTX, or SMX-HV Controls to Work With the VSD3X or VSDFC6X

Programming the PLTX-HV, NPLTX, or SMX-HV Control

1. Follow the VSD3X and VSDFC6X wiring diagrams enclosed on how to incorporate it to the PLTX-HV, NPLTX, or SMX-HV control board and the fan. **Since there are 3 different wiring diagrams, make sure the drawing being used matches the air conditioning unit you are working on**. **Pay close attention to the caution, warning, and important notes on the wiring diagram.**
2. After wiring the VSD3X or VSDFC6X to the control board and the fan, **make sure the AC voltage selector is selected to match the power input to the PLTX-HV, NPLTX, or SMX-HV control and the fan.**
3. The High and Low fan speeds will need to be set to a particular value on the PLTX-HV, NPLTX, or SMX-HV control in order to work with the VSD3X or VSDFC6X. Refer to the control operation manual if necessary.
4. Apply power to the control.
5. **To set the Low fan speed**, using the control's SMXIR display keypad, press the OFF button, then the SET button, then press the SET button and the DOWN button at the same time. A value will be displayed. Press the Up or Down buttons to change it to "10". Press the Off button to safe it in memory.
6. **To set the High fan speed**, press the OFF button, then the SET button, then press the SET button and the SLOW button at the same time. A value will be displayed. Press the Up or Down buttons to change it to "42". Press the Off button to safe it in memory.
7. To make sure everything is set up correctly, test the fan speeds by pressing the SLOW and Fast buttons to see if the fan changes 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 change to increase or decrease the value for high speed, or increase or decrease the value for low speed using the SMXIR display keypad as explained above.

Programming the VSD3X or VSDFC6X

Danger: The VSD board contains high voltage. Only touch the brown buttons on the board.

The VSD3X and the VSDFC6X have been factory programmed to work with the PLTX-HV, NPLTX, or SMX-HV control. So, no additional programming on the VSD3X or VSDFC6X 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 VSD3X and VSDFC6X: 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 both buttons to toggle between the two modes.

"**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 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 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.

"**L**" = 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 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 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 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".