

Ducted Systems Technical Services: Service Tips Letter

Letter: ST-004-2023

Date: February 22, 2023 Effective: February 22, 2023

To: S1 HVAC Branch and Distributor Principal, Sales Manager, Service Manager, Parts Manager, Warranty Manager, Training Manager, Delegated Administrator.
Ducted Systems Technical Services, DS Parts/S1, ES Americas, ADTI Channel, Account Representatives, Marketing, Sales, Warranty teams.

Subject: **Control Board Setup**

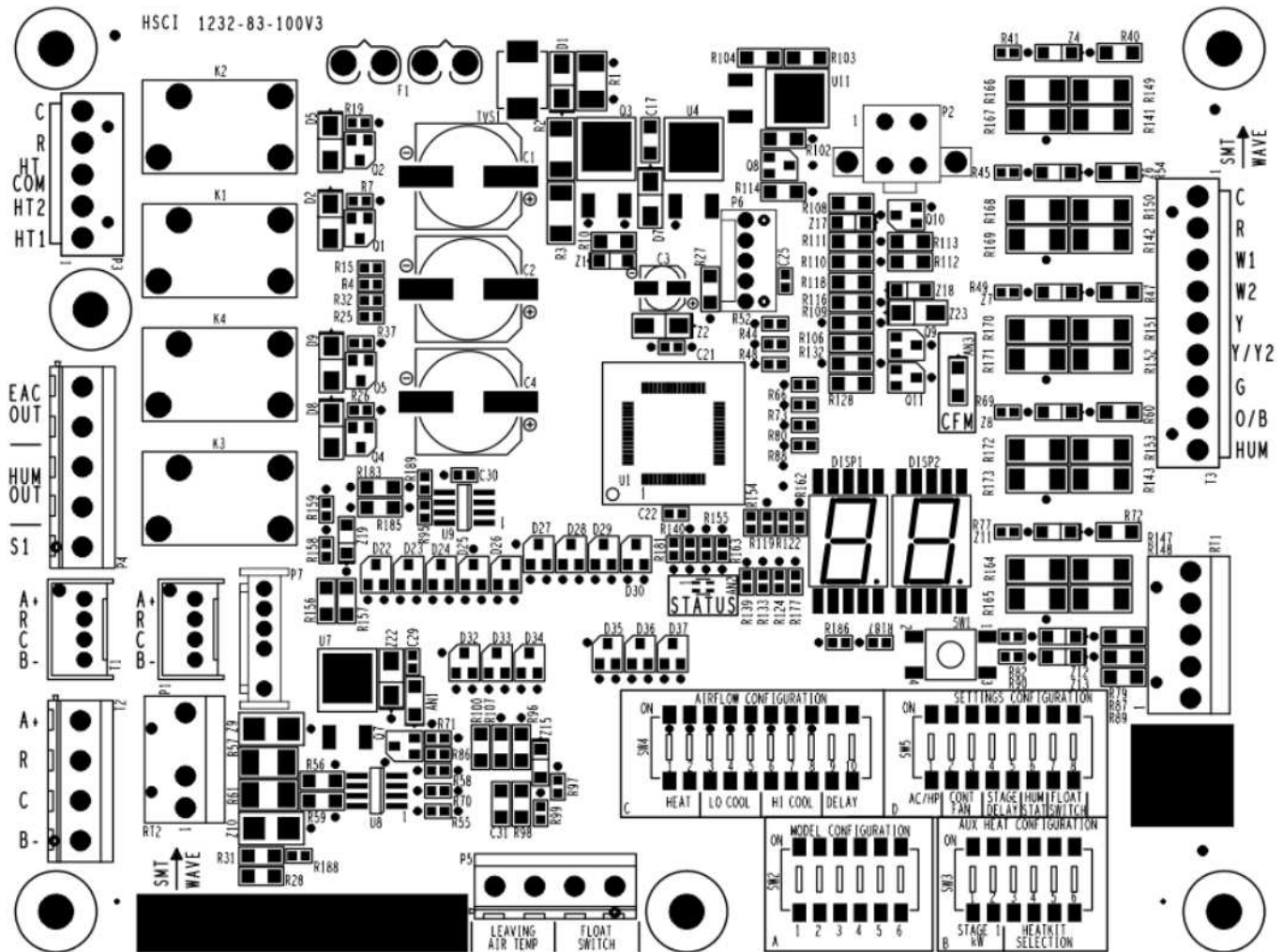
Product/s: JHVT / JMVT / JHVV

Summary This letter provides additional details regarding air handler control board setup, explanation of settings, diagnostic information, etc.

Dear valued customer:

Since product launch of the new premium ECM variable speed single-piece and multi-piece air handling units, we have received an elevated number of inquiries regarding equipment fault codes, setup, diagnostics, etc. The purpose of this letter is to provide detailed, step-by-step setup information as well as details regarding features and setup of such features.

The control board contains a variety of new features including two 7-segment LED displays that can be used to aid in unit setup, diagnostics, and current mode/status. The indoor blower motor is a constant CFM type and communicates with the control board using the ClimateTalk™ communications protocol. Motor program data, unit model and parameter information are stored on a removable EEPROM (electrically erasable programmable read-only memory) storage device inserted to EE Plug location marked P7 on the unit control board. The control can interface with either a S1-THXU430W communicating room thermostat or conventional room thermostat. If an HX communicating thermostat is used and wired using communications, it must have software version 3.00zn or later. Communicating room thermostats can be used in an air handling unit only application or with a fully communicating outdoor section. The air handling unit will not control a non-communicating outdoor section unless wired using a conventional room thermostat. JHVT/JMVT models utilize field-installed accessory electric heat kit 8HK models. The 8HK heat kit does not communicate in any way with the air handling unit control board. The control board has no way of knowing what heat kit, if any, is physically connected to it. The air handling unit control board has a float switch input that can only be utilized if controlling the air handler with a communicating room thermostat. The float switch input is ignored unless activated in the installer setup mode of the HX communicating thermostat. The air handler can use either a normally open or normally closed float switch, selectable during installer setup. There is also a built-in "S1 mode" feature that allows the logic for reversing valve and dehumidification during cooling to be reversed if using an HMH7 model heat pump as the HMH7 model utilizes a reversing valve signal energized during the heating mode in lieu of cooling as typical in all our other JCI residential outdoor heat pump models. Below is an image of the control board.

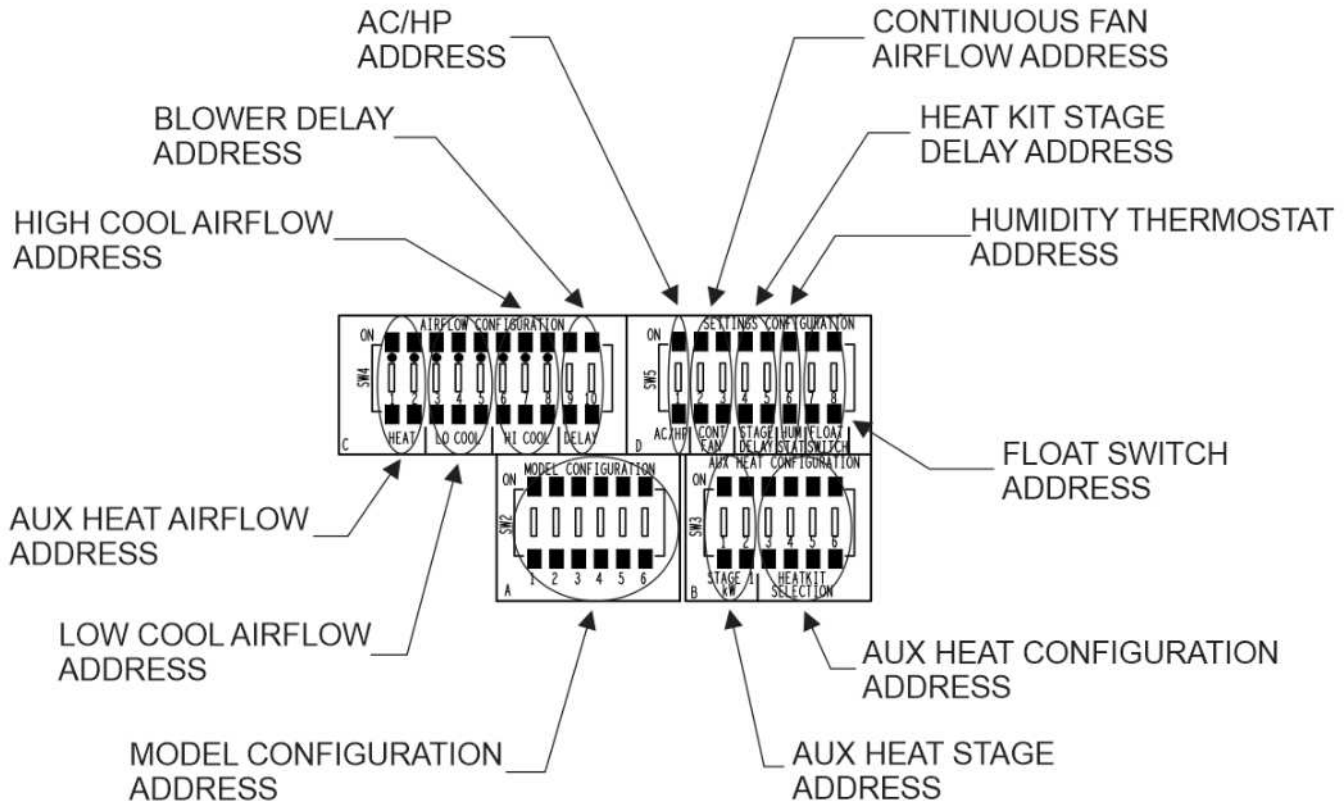


In the lower right-hand corner, there are 4 banks of dipswitches each of which are in their own quadrant labeled A, B, C, or D. Each bank of switches is labeled SW2, SW3, SW4, or SW5. Each switch has an ON or OFF position. Every individual switch comes from the factory in its OFF position.

The OFF position is also referred to as the number 0. The ON position is also referred to as the number 1. This is referred to as binary code where there are only two states, off and on. Each individual setting on the air handling unit has what we refer to as an "address." The address is made up of binary code. For example, an address of model JHVTC36D is 010100 meaning switch positions 1 through 6 in quadrant A (SW2) are OFF, ON, OFF, ON, OFF, OFF as shown to the right.























Shown below is a close-up of all four switch bank quadrants and each individual address that must be set. In most cases, many of the switches will remain in the OFF (0) position.

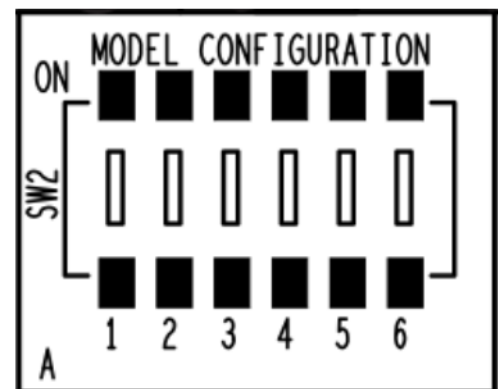


As previously stated, every switch comes from the factory in the OFF position. The unit model number is programmed into the unit control board and stored during unit factory run test. Theoretically, the model configuration switches should not need to be changed however if inadvertently one of the switches is changed, a model configuration fault of 01 will be displayed. In most cases a blower match error fault 02 will also be displayed. This is due to stored program on the blower motor no longer matches the unit model as a model configuration switch was changed.

For simplicity, we recommend setting the model configuration address appropriately based on the specific unit model being commissioned. This is the first setting (address) that should be changed and saved prior to any other changes. All switch address changes can be made with control power applied and that is recommended. There must be no active thermostat calls to the control during setup. If necessary, unplug the conventional thermostat wiring harness from connector T3 located in the upper right-hand side of the control board. Air handling unit addresses are 6 digits. A list of all current model addresses is shown below.

 JHVTB18B	 JHVTD42F	 JHVTD60J	 JHVVB24D
 JHVTB24C	 JHVTC48G	 JMVT12B	 JHVVB36D
 JHVTB36D	 JHVTD48G	 JMVT16C	 JHVVC36D
 JHVTC36D	 JHVTC60H	 JMVT17C	 JHVVC48H / JHVVC60H
 JHVTC42F	 JHVTD60H	 JMVT20D	 JHVVD48H / JHVVD60H

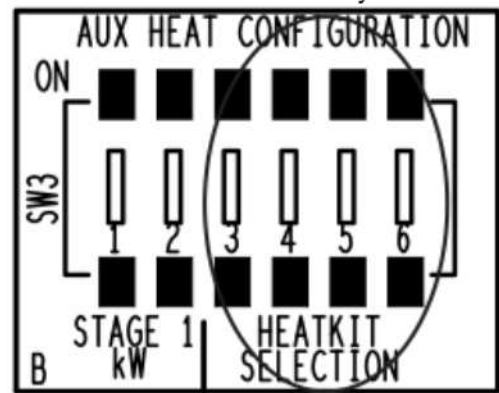
Locate the air handling unit model number from the unit rating plate and its corresponding address from the list above. Set the switches on SW2 located in quadrant A to the appropriate address. For example, model JHVTC36D is address 010100. Once the address is set, the control will immediately fault "01" and the pushbutton must be held down for >6 seconds but <10 seconds. If pushbutton timing is correct, the control will display the air handling unit model number on the 7-segment display and go back into standby mode. If the error does not clear, the pushbutton was not depressed for the appropriate amount of time. Simply try again. A complete list of air handling unit model numbers is shown below.



JHVTB18B	1C
JHVTB24C	2C
JHVTB36D	3C
JHVTC36D	4C
JHVTC42F	5C
JHVTD42F	6C
JHVTC48G	7C
JHVTD48G	8C
JHVTC60H	9C
JHVTD60H	1d

JHVTD60J	2d
JMVT12B	1E
JMVT16C	2E
JMVT17C	3E
JMVT20D	4E
JHVVB24D	1A
JHVVB36D	2A
JHVVC36D	3A
JHVVC48H / C60H	4A
JHVVD48H / D60H	5A

Once the air handling unit model has been set, the heat kit address must be set if an accessory heat kit is installed. Heat kit addresses are 4 digits and set on switches 3, 4, 5, and 6 on SW3 located in quadrant B. To find the correct heat kit address locate the air handling unit model number and heat kit model number. Reference the electrical heat minimum fan CFM tables in the unit installation manual. The example table below shows model JHVTC36D and heat kit 8HK(1,2)6501506. The heat kit address in this example is 0101.



Heater kit models ^{1,2}	Nominal kW at 240 V	Airflow configuration heat dip switch setting*	Aux heat configuration heatkit selection dip switch setting	Air handler models (CFM ³)											
				B18B	B24C	B36D	C36D	C42F	D42F	C48G	D48G	C60H	D60H	D60J	
8HK(0,1)6500206	2.4	00	0001	625	650	625	825	825	825	825	825	825	825	825	825
8HK(0,1)6500506	4.8	00	0010	650	650	650	825	825	825	825	825	825	825	825	825
8HK(0,1)6500806	7.7	00	0011	750	800	750	1100	1100	1150	1100	1150	1100	1150	1150	1150
8HK(0,1)6501006	9.6	00	0100	790	950	750	1100	1100	1500	1100	1500	1100	1500	1500	1500
8HK(1,2)6501506	14.4	00	0101		650, 950	650, 975	825, 1100	825, 1100	825, 1575	825, 1100	825, 1575	825, 1100	825, 1575	825, 1300	825, 1700
8HK(1,2)6502006	19.2	00	0110		750, 975	1100, 1300	1100, 1300	1325, 1575	1100, 1300	1325, 1575	1100, 1300	1325, 1575	1100, 1300	1325, 1575	1500, 1700
8HK(1,2)6502506	24	00	0111									1325, 1650		1325, 1650	1500, 1800

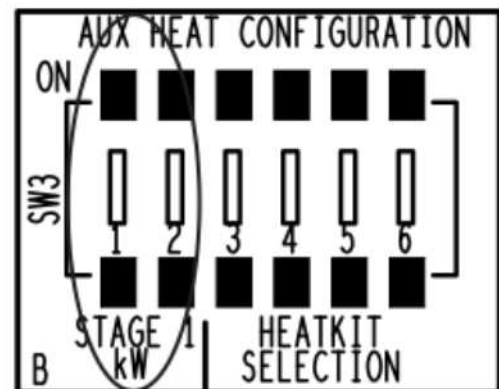
Change the address accordingly. Once the address is set, the control will immediately fault "03" and the pushbutton must be held down for >6 seconds but <10 seconds. If pushbutton timing is correct, the control will display the heat kit model number on the 7-segment display and go back into standby mode. If the error does not clear, most likely the pushbutton was not depressed for the appropriate amount of time. Simply try again. Another thing to consider is a heat kit address that is not compatible with the air handling unit model. For example, with air handling unit model JHVTC36D, if the heat kit address were set for 0111 a fault "03" would appear and would not clear as a 25 KW heat kit is not compatible with this model. A complete list of heat kit model numbers is shown on the right. If the installer fails to set a heat kit address the air handling unit control will still accept electric heat calls (A1, A2, E1, E2), the blower will operate, however, there will be no 24v output to the heat kit. If the control is in standby mode and the pushbutton depressed one time, the two-digit unit model will be displayed followed by the heat kit model number. If only the model is displayed followed by "—", then there is no heat kit selected.

8HK*6500206	02
8HK*6500506	05
8HK*6500806	08
8HK*6501006	10
8HK*6501506	15
8HK*6502006	20
8HK*6502506	25
8HK*6501025	31
8HK*6501525	32
8HK*6502025	33
8HK*6502525	34

Some 8HK heat kits have only one stage of heat and some have multiple stages of heat available. Single-phase heat kits 10KW and below are single-stage. Single-stage heat kits require only one input referenced to as "W1." Multi-stage heat kits require two inputs referenced to as "W1" and "W2." Only 5 of the 8HK heat kits are multi-stage. Reference the chart on the right regarding the amount of heat per stage on multi-stage heat kits. The air handler control board allows configuration of using the W1 input to the control board itself to operate the W1 input of the heat kit, W2 input of the heat kit, or W1 and W2 inputs of the heat kit. The settings can be changed by the aux heat stage address. Aux heat stage addresses are 2 digits and set on switches 1 and 2 on SW3 located in quadrant B. The aux heat stage addresses can be found on the aux heat configuration - stage 1kW dip switch settings table in the unit installation manual and shown below. For heat pump applications, it is recommended to use only the least amount of electric heat necessary to properly temper the indoor air during unit defrost. Heat pumps energize W1 on the air handling unit control board only during defrost. For an example where it would be necessary to change the aux heat stage address is with air handling unit model JHVTC36D, a 15KW heat kit, and a 3-ton heat pump. First stage of heat on a 15KW heat kit is only 4.8KW which is not sufficient for a 3-ton heat pump. It is much more appropriate to use the second stage only of the 15KW heat kit. To accomplish this, the aux heat stage address should be changed to 10.

Three-phase heat kits 15KW and below are single-

HEAT KIT STAGING @ 240V			
	W1	W2	W1+W2
8HK*6501506	4.8	9.6	14.4
8HK*6502006	9.6	9.6	19.2
8HK*6502506	9.6	14.4	24
8HK*6502025	9.6	9.6	19.2
8HK*6502525	12	12	24

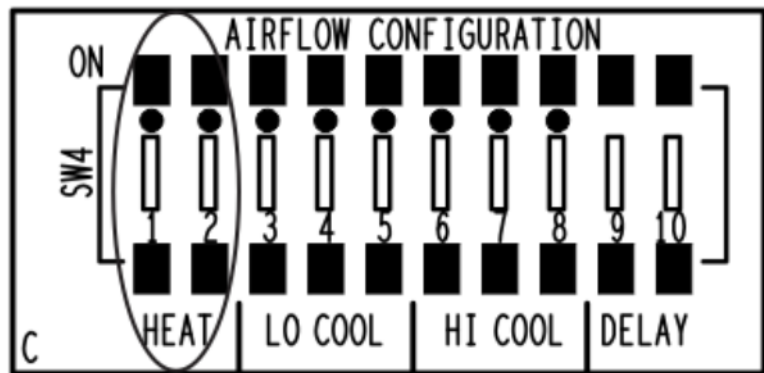


When the heat pump goes into defrost, 9.6KW of electric heat will be energized. Another example is a JHVTD60H, a 15KW heat kit, and a 5-ton heat pump. To properly temper the air during defrost, all 15KW of heat will be necessary. To accomplish this, the aux heat stage address should be changed to 11. When the heat pump goes into defrost, 14.4KW of electric heat will be energized. See the table below regarding aux heat stage addresses.

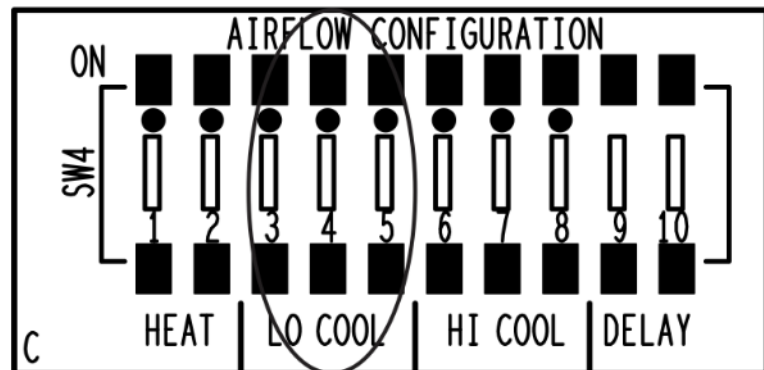
W1 = W1	00, 01
W1 = W2	10
W1 = W1 + W2	11

Once the aux heat stage address is set, the control will immediately fault "04" and the pushbutton must be held down for >6 seconds but <10 seconds. If pushbutton timing is correct, the control will go back into standby mode. If the error does not clear, most likely the pushbutton was not depressed for the appropriate amount of time. Simply try again. Another thing to consider is a heat kit aux stage address that is not compatible with the heat kit model selected. For example, with a heat kit model 8HK16501006, if the heat kit aux stage address were set to 10 or 11 a fault "04" would appear and would not clear as a 10 KW is only single stage meaning W1 always and only equals W1. There is no W2 with a 10KW heat kit.

When the 4-digit auxiliary heat kit address is set, it also sets the appropriate required airflow for the heat kit selected. To increase the heat kit airflow by approximately 20%, the 2-digit aux heat airflow address can be changed from 00 to 01. This address is switches 1 and 2 on SW4 located in quadrant C. A change of this address will not cause a fault and the control configuration does not need to be reset again by holding the pushbutton.



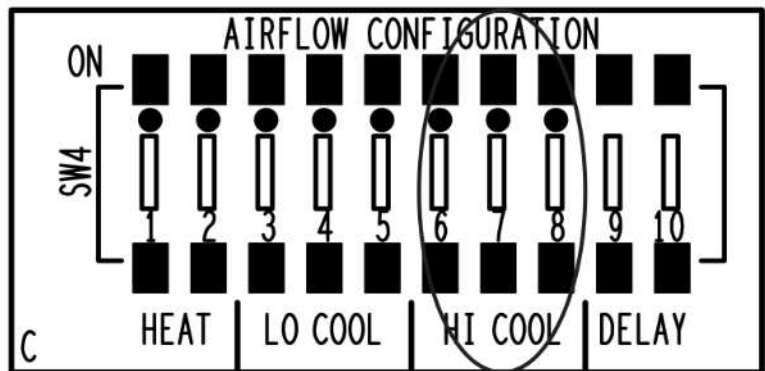
If a multi-stage outdoor unit is utilized, a LO COOL address must be set for required low-speed airflow. This address is for both heat pump heating and air conditioning compressor airflow speed which will occur when the air handling unit Y1 input is energized. Y1 blower speed addresses are 3 digits and set on switches 3, 4, and 5 on SW4 located in quadrant C. A change of this address will not cause a fault and the control configuration does not need to be reset again by holding the pushbutton. If a single-stage outdoor unit is installed, there is no need to change factory address of 000. Rated indoor airflow can be found in the outdoor unit technical guide. Typically, nominal airflow is 350 - 400 CFM per ton and low-speed airflow is approximately 67% of high-speed airflow. To locate the correct address, reference the airflow data table in the air handling unit installation manual.



DIP Switch	Unit	B18B		B24C		B36D		C36D		C42F		D42F	
		High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
000	CFM	575	400	700	475	800	550	825	600	1100	700	1125	675
	W	101	75	134	91	162	102	164	113	224	130	216	124
001	CFM	625	450	725	525	900	600	900	650	1200	750	1225	875
	W	111	82	143	99	186	112	183	122	254	139	245	157
010	CFM	675	475	800	575	975	650	1000	700	1300	800	1325	925
	W	121	85	154	108	215	123	206	132	291	154	276	167
011	CFM	725	525	850	625	1075	700	1050	750	1400	850	1425	1000
	W	133	93	166	115	248	135	229	143	335	164	311	184
100	CFM	775	550	925	650	1150	775	1150	825	1500	925	1550	1075
	W	145	97	198	123	289	154	253	159	390	180	354	203
101	CFM	850	575	975	700	1250	825	1225	850	1625	975	1675	1150
	W	159	101	216	134	334	169	284	171	451	192	402	224
110	CFM	900	625	1075	725	1325	900	1300	900	1725	1050	1775	1225
	W	174	111	248	143	386	186	315	183	521	210	462	245
111	CFM	950	650	1100	775	1400	950	1350	950	1825	1100	1875	1275
	W	194	115	274	148	455	204	350	198	603	224	534	262

Using a 3-ton outdoor unit and 400 CFM/ton, 67% is 804 CFM. The closest match for the C36D model air handling unit low speed is 825 CFM. The address for this setting is 100.

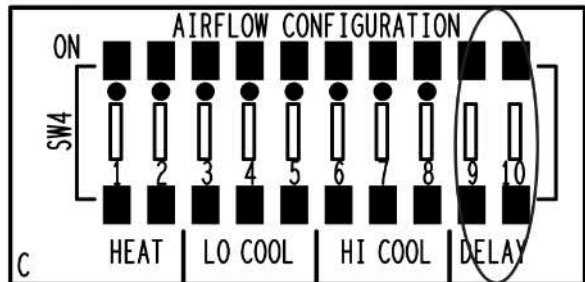
If a single-stage or multi-stage outdoor unit is utilized, a HI COOL address must be set for required full-speed airflow. This address is for both heat pump heating and air conditioning compressor airflow speed which will occur when the air handling unit Y/Y2 input is energized. Y/Y2 blower speed addresses are 3 digits and set on switches 6, 7, and 8 on SW4 located in quadrant C. A change of this address will not cause a fault and the control configuration does not need to be reset again by holding the pushbutton. Rated indoor airflow can be found in the outdoor unit technical guide. Typically, nominal airflow is 350 - 400 CFM per ton. To locate the correct address, reference the airflow data table in the air handling unit installation manual.



DIP Switch	Unit	B18B		B24C		B36D		C36D		C42F		D42F	
		High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
000	CFM	575	400	700	475	800	550	825	600	1100	700	1125	675
	W	101	75	134	91	162	102	164	113	224	130	216	124
001	CFM	625	450	725	525	900	600	900	650	1200	750	1225	875
	W	111	82	143	99	186	112	183	122	254	139	245	157
010	CFM	675	475	800	575	975	650	1000	700	1300	800	1325	925
	W	121	85	154	108	215	123	206	132	291	154	276	167
011	CFM	725	525	850	625	1075	700	1050	750	1400	850	1425	1000
	W	133	93	166	115	248	135	229	143	335	164	311	184
100	CFM	775	550	925	650	1150	775	1150	825	1500	925	1550	1075
	W	145	97	198	123	289	154	253	159	390	180	354	203
101	CFM	850	575	975	700	1250	825	1225	850	1625	975	1675	1150
	W	159	101	216	134	334	169	284	171	451	192	402	224
110	CFM	900	625	1075	725	1325	900	1300	900	1725	1050	1775	1225
	W	174	111	248	143	386	186	315	183	521	210	462	245
111	CFM	950	650	1100	775	1400	950	1350	950	1825	1100	1875	1275
	W	194	115	274	148	455	204	350	198	603	224	534	262

Using a 3-ton outdoor unit and 400 CFM/ton, approximate CFM is 1200. The closest match for the C36D model air handling unit full speed is 1225 CFM. The address for this setting is 101.

The variable speed air handling unit has several different blower motor delay profiles that can be used for increased comfort. The four different settings are Normal, Humid, Dry, and Temperate. The definition and sequence of operation of each individual profile can be found in the unit install manual Comfort Settings section. Once the delay profile is selected, acquire the profile address and set switches 9 and 10 on SW4 located in quadrant C.

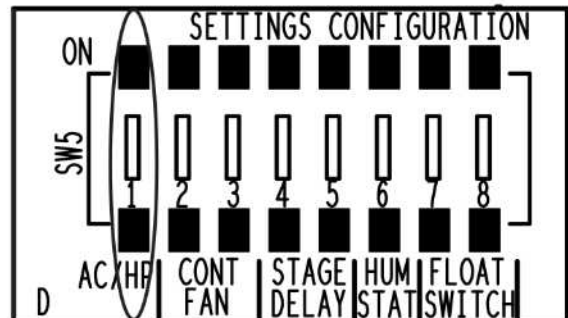


A change of this address will not cause a fault and the

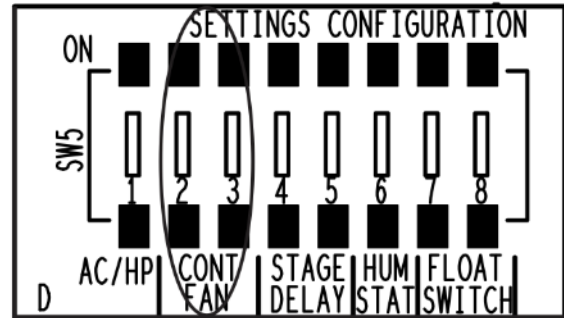
control configuration does not need to be reset again by holding the pushbutton.

Delay tap	Comfort setting
A = 00	Normal
B = 01	Humid
C = 10	Dry
D = 11	Temperate

The variable speed air handling unit control has an air-conditioner/heat pump switch that must be set. The factory/default setting is 0 or OFF. If an air-conditioning unit is used, the address must be changed to 1 which is ON. This is switch 1 located on SW5 located in quadrant D. If this address is not properly set, faults such as 22, 24, and 25 can occur. This setting also affects the HUM OUT functionality when using a whole-house humidifier. A change of this address will not cause a fault and the control configuration does not need to be reset again by holding the pushbutton.



The variable speed air handling unit control can operate the indoor blower motor continuous fan speed at 4 different settings which are percentages of each individual model unit maximum airflow amount. The factory/default setting is 00 or OFF, OFF. This setting is switches 2 and 3 on SW5 located in quadrant D. An address of 00 is 40%. If a different amount of airflow is desired during continuous blower operation, the address must be changed. Note that the maximum airflow amount is based on the maximum CFM the particular model

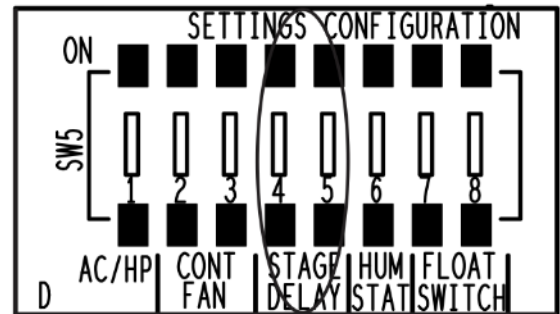


CONT FAN	% of maximum airflow
00	40
01	60
10	80
11	100

air handling unit can produce, not the maximum CFM set on the HI COOL setting. For example, a C36D air handling unit maximum CFM is 1350 CFM. Regardless of HI COOL setting, a continuous fan address of 11 will result in 1350 CFM during a continuous fan call. A continuous fan call

however is ignored during a heat pump heating or air conditioning cooling call. A change of this address will not cause a fault and the control configuration does not need to be reset again by holding the pushbutton.

The variable speed air handling unit control can operate a multi-stage accessory heat kit using a single-stage room thermostat. This setting is switches 4 and 5 on SW5 located in quadrant D. The factory/default setting is 00 or OFF, OFF. With this setting, a W1 input to the air handling unit will only result in first-stage electric heating. An exception to this is if a change was made using the aux heat stage address located on switches 1 and 2 on SW3 located in quadrant B. Instructions regarding the aux heat stage address is located above on page 6. If aux heat stage address is 00, a multi-stage auxiliary heat kit is being used, and a single-stage thermostat will be used, the multi-stage heat

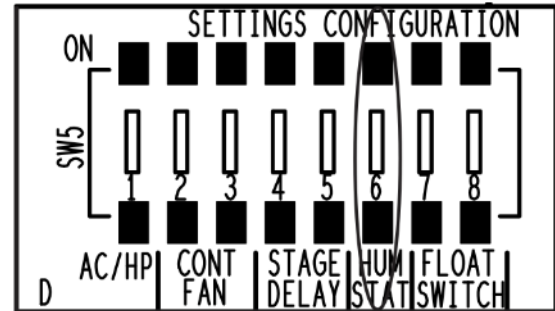


STAGE DELAY	Time (min)
00	disabled
01	10
10	15
11	20

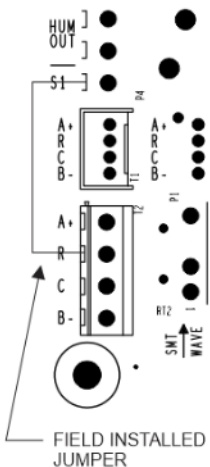
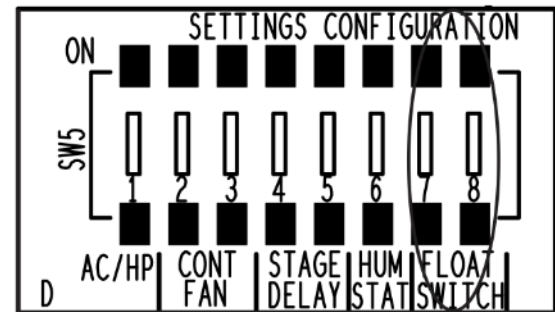
kit can be controlled by changing the stage delay address. For example, if the stage delay address is set for 01 the air handling unit control board will energize the second stage of electric heat 10 minutes after a W1 call is received if the W1 call is still present. A change of this address will not cause a

fault and the control configuration does not need to be reset again by holding the pushbutton.

The variable speed air handling unit control has a built-in de-humidification feature that can be enabled. To use this feature, the humidity thermostat address must be changed from 0 to 1 and a humidistat must be wired between the air handling unit field control wiring R and HUM connections. The humidity control closes when the humidity is below the set-point and opens when the humidity is above the set-point. This humidity control may be referred to as a humidistat or a de-humidistat. The humidity switch controls de-humidification operation of the control during cooling operation by reducing indoor airflow approximately 15% when the humidistat is open. A change of this address will not cause a fault and the control configuration does not need to be reset again by holding the pushbutton.

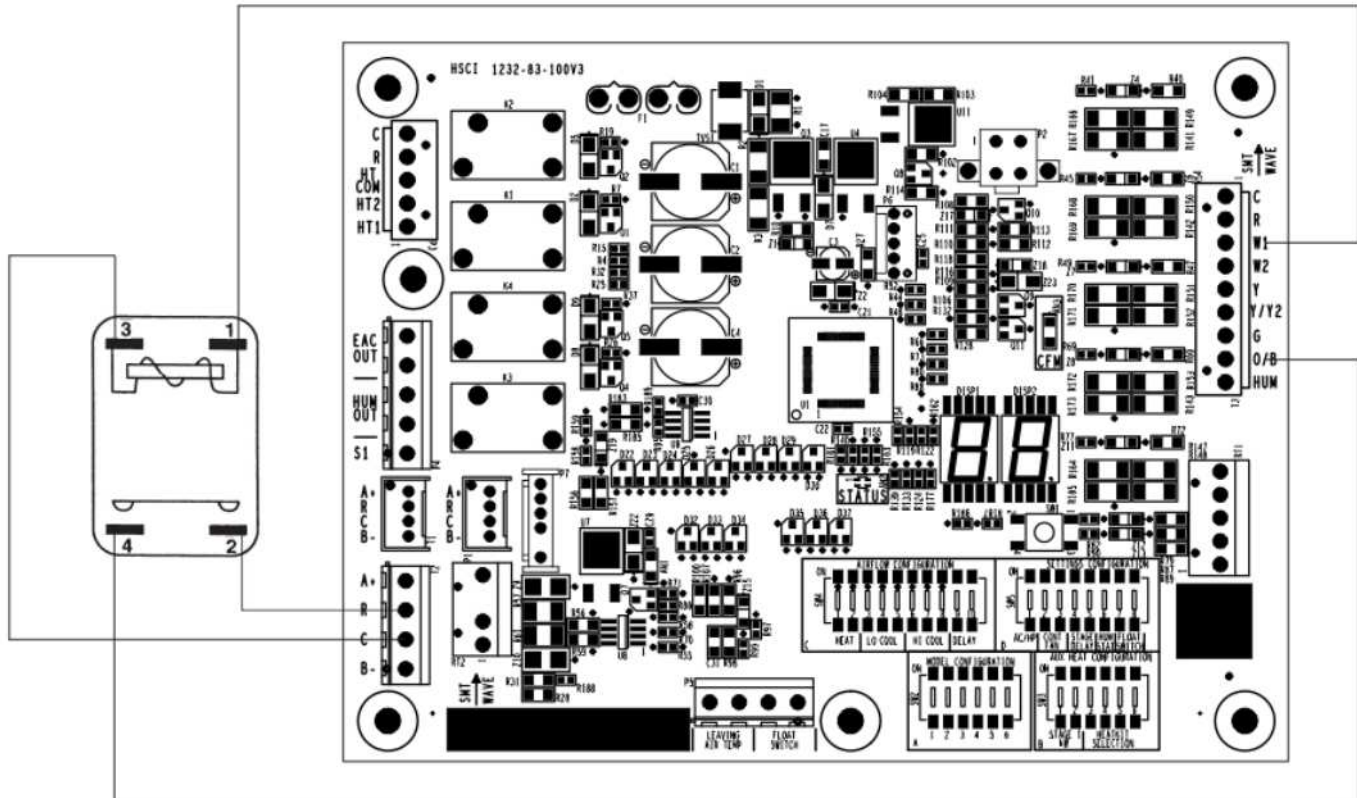


The variable speed air handling unit control can monitor an accessory float switch connected to the float switch input on the control. The feature is only available when using a communicating room thermostat. This setting is switches 7 and 8 on SW5 located in quadrant D. The factory/default setting is 00 or OFF, OFF. If using a normally closed switch, set the address to 01 (OFF/ON) position. If using a normally open switch, set the address to 10 (ON/OFF) position. A change of this address will not cause a fault and the control configuration does not need to be reset again by holding the pushbutton. The control board address can be left at 00 and the switch selection enabled on the communicating thermostat. At the room thermostat system settings menu, the FLOAT SWITCH setting must be changed from its default (disabled) setting. If using a normally closed switch, choose Enabled (Open). If using a normally open switch, choose Enabled (Closed).



The variable speed air handling unit control can interface with an HMH7 model heat pump without using an HMH7AK002 accessory relay kit using the built-in "S1" feature. S1 mode is used to control the indoor blower speed as well as change the reversing valve logic from "energized during cooling" (O) to "energized during heating" (B) which allows proper operation of the air handling unit de-humidification feature during cooling mode and humidifier output during heating mode. To enable S1 mode, with the control in standby mode, place a jumper from R to S1 as shown to the left. Press and hold the pushbutton for >6 seconds but <10 seconds. If successful, the 7-segment display will show "S1" and control will go back to standby mode. Another way to confirm if air handling unit control is in S1 mode is by placing a jumper from "R" to "Y/Y2". If control is in S1 mode, C2 will be displayed. If control is not in S1 mode, H2 will be displayed. Placing the unit in S1 mode should be done *after* all other setting changes. If the control is reset again with the field-installed jumper removed, the control will be taken out of S1 mode. Note: when using S1 mode, the room thermostat **MUST** energize the O/B air handling unit input any time a heat call is initiated even if the heat call is only for emergency heating. Most room thermostats do operate in this fashion. If the control is in S1 mode and a W call is received without an O/B call, the control will fault with RED 25. Control setup is now complete.

If in S1 mode and the room thermostat utilized does not energize O/B with an emergency heating call, a single pole single throw 24VAC switching relay should be added as shown in the diagram below.



ClimateTalk™ blower motor diagnostics

The indoor blower motor is a constant CFM type and communicates with the control board using the ClimateTalk™ communications protocol. Most of the motor diagnostics must be performed using the variable speed™ control board. Unlike previous constant CFM blower motors used in the past, these motors and the control board have back-and-forth communication, not conventional signals therefore there is limited testing that can be done using a voltmeter. The motors used are single piece therefore a failure with the motor control results in a complete motor replacement, unlike previous premium variable speed motors where a motor module could be replaced without motor replacement. The motor is listed as 115/230V on its nameplate. However, in the air handling unit application it is configured for 230V as we do not offer a 115V air handling unit. If the motor were being used for a 115-volt application, there would be a jumper wire in the motor flat 5-pin connector bonding pins 1 and 2 together.

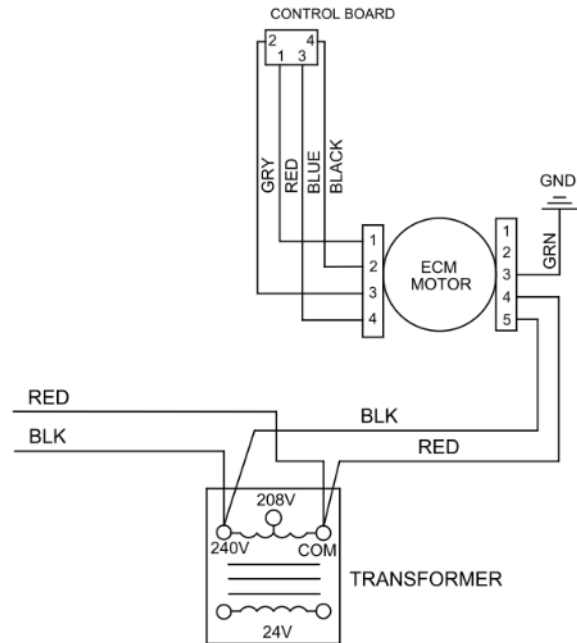
The motor flat 5-pin connector for power should be tested for proper line voltage between pins 4 and 5 which are RED and BLACK wires.

The motor flat 4-pin connector for motor communications should be tested between pins 1 and 4 which are RED and BLUE wires. Proper voltage is between 5 – 12 VDC.

The control rectangle 4-pin connector for motor communications should be tested between pins 1 and 3 which are RED and BLUE wires. Proper voltage is between 5 – 12 VDC.

The control and motor 4-pin connector for communications A+ and B- is GRAY and BLACK wires. There is no field testing that can be done using a voltmeter.

The variable speed control board is in constant communication with the blower motor. Most of the motor-related fault codes if displayed should be easy to diagnose using information from the installation manual, a voltmeter, and a manometer with static pressure probes. Below are some examples of faults and possible solutions.



If fault 30 is displayed, confirm there is no outside source that could be spinning the blower wheel. An example of this would be an alternate piece of equipment on the same duct system without backdraft dampers or a twinning type application. Residential air handling unit models are not approved for twinning applications.

If fault 31 is displayed, check line and low voltage as described above. Inspect connections and, if appearance is good and voltage is correct most likely the motor has failed.

If fault 32 is displayed, check line voltage to confirm incoming voltage is not too high. The air handling unit normal operating voltage range is 187V to 253V. Always check voltage under a load if possible.

If fault 33 is displayed, check line voltage to confirm incoming voltage is not too low. The air handling unit normal operating voltage range is 187V to 253V. Always check voltage under a load if possible.

If fault 34 is displayed, check line and low voltage as described above. Inspect connections and, if appearance is good and voltage is correct most likely there is a restriction. Reset control and motor by cycling line voltage power. Once the motor is operable, check total external static pressure to make sure it is within acceptable range. Check the blower wheel for debris. Check unit air filter for debris.

If fault 35 is displayed, check line and low voltage as described above. Inspect connections and, if appearance is good and voltage is correct most likely there is a problem with the blower wheel. Inspect the blower wheel location and that the set screw is properly torqued. The blower wheel should be centered in the blower housing.

If fault 36 is displayed, check that the aux heat configuration address is set properly based on air handling unit model and heat kit installed. Check the blower wheel for debris. Check total external static pressure to make sure it is within acceptable range. Check unit air filter for debris.

If fault 37 is displayed, check for proper airflow settings. Check the blower wheel for debris. Inspect the blower wheel location and that the set screw is properly torqued. The blower wheel should be centered in the blower housing.

If fault 38 is displayed, the motor may be defective. Reset control and motor by cycling line voltage power. Once the motor is operable, check total external static pressure to make sure it is within acceptable range. Check the blower wheel for debris. Check unit air filter for debris.

If fault 39 is displayed, check for proper electrical connections. Confirm the EEPlug is firmly seating into the socket on the control board. Reset control and motor by cycling line voltage power, and if problem persists, most likely the blower motor is defective.

If fault 40 is displayed, check for proper electrical connections. Confirm the EEPlug is firmly seating into the socket on the control board. Reset control and motor by cycling line voltage power, and if problem persists, most likely the blower motor is defective.

If fault 41 is displayed, remove all thermostat calls from the control board. If fault 41 does not clear, depress the pushbutton for >2s but <6s. Once the active fault has been cleared, depress the pushbutton for >2s but <6s to retrieve stored fault codes and continue diagnostics.



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