

Step 16 — Fan Speed Set Up

UNITS WITH ELECTRO-MECHANICAL CONTROLS

The Fan Speed set up controls are located on the lower section of the Unit Control Board (UCB). See Fig. 57 location on 3 phase voltage units or Fig. 58 for location on single phase voltage units.

1. Check the job specifications for the CFM (cubic feet per minute) and ESP (external static pressure) required.
2. Using the chart on the Fan Speed Set Up labels (see Fig. 60), calculate the Vdc from the CFM and ESP for the base unit plus any field accessories (as listed on the label).

NOTE: The Fan Speed Set Up labels are located on the High Voltage cover in the Control Box.

3. Connect a multimeter to the Vdc terminals on the UCB.
4. Set the Range Switch to either A, B, or C per the Switch Range table.
5. Using a straight blade screwdriver turn the Vdc control dial to fine tune the Vdc reading.
6. Record the reading in the Field Setting field.

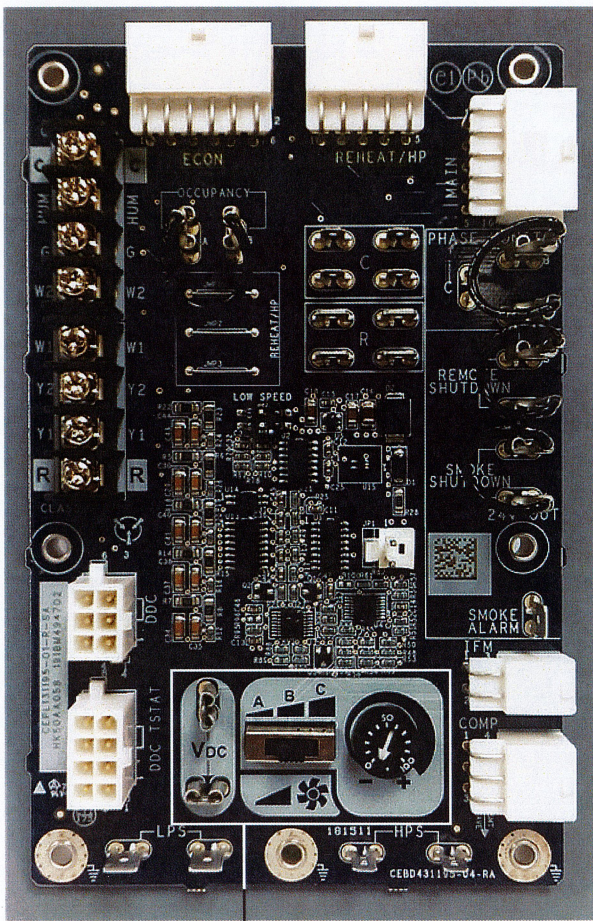


Fig. 57 — UCB Fan Speed Controls - 3-Phase Units

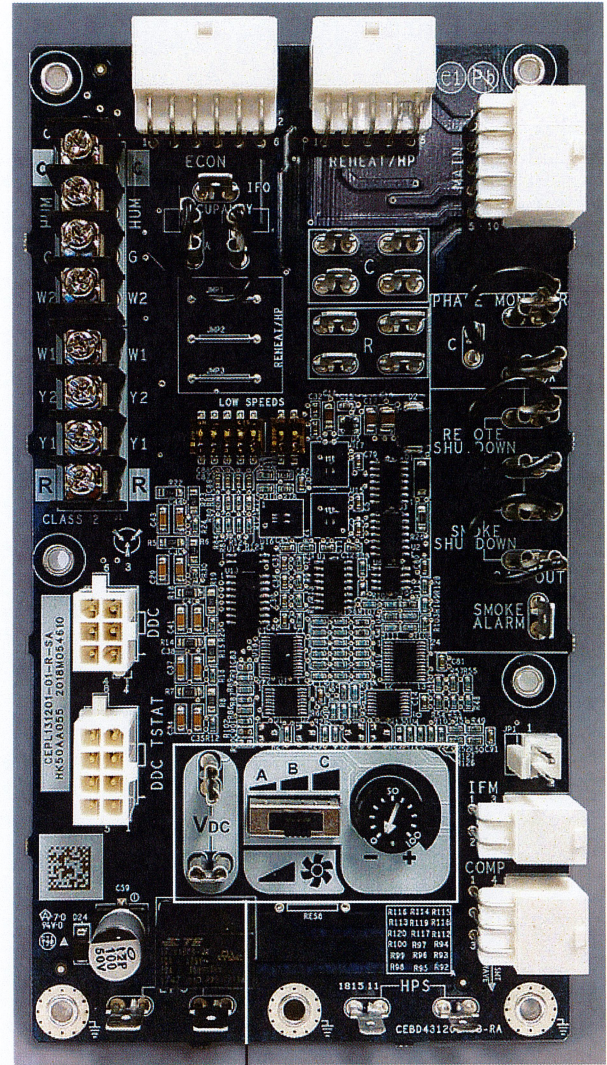


Fig. 58 — UCB Fan Speed Controls - Single Phase Units

NOTE: On single phase units, the approximate static pressure of the ductwork must be set for optimal unit efficiency. The unit is factory set for greater than 1.0 in. wg. If the external static pressure is less than 1.0 in. wg, slide switch 1 on the 5-pin DIP to the "ON" position. See Fig. 59.

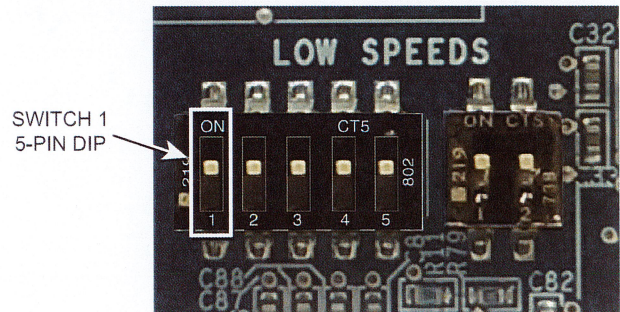
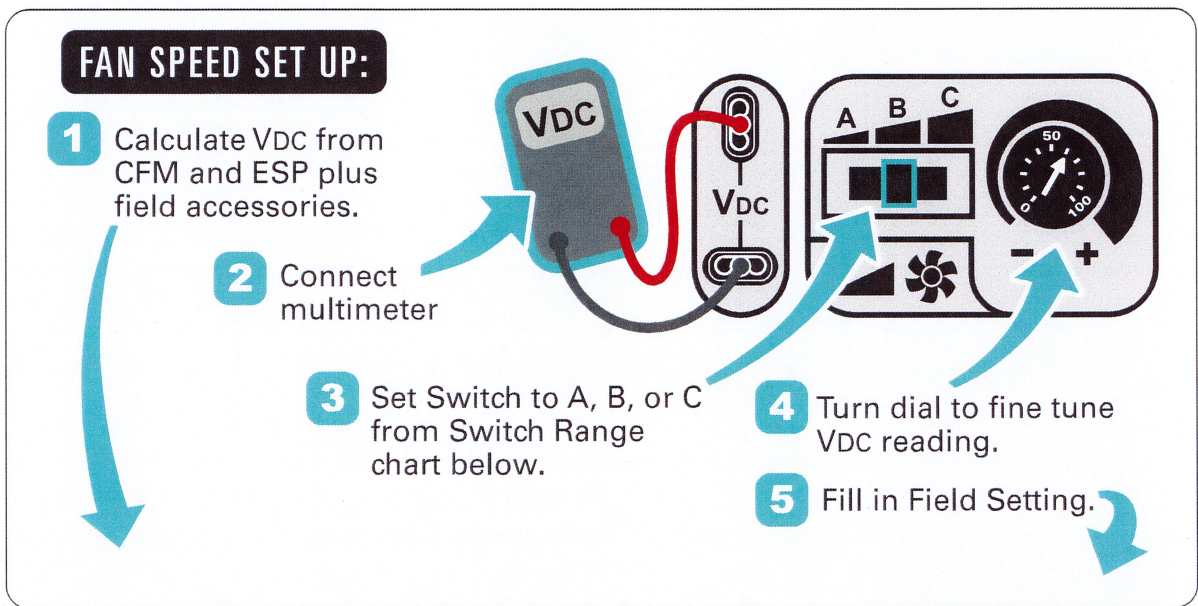


Fig. 59 — Detail – 5-Pin DIP Switch



Vdc Calculator		ESP in. wg																		
		0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0									
UNIT MODEL NUMBER	CFM	1500	6.0	6.7	7.4	8.0	8.5	9.0	9.5	9.9										
		1625	6.3	7.1	7.7	8.3	8.8	9.3	9.7											
		1750	6.7	7.4	8.0	8.6	9.1	9.5	10.0											
		1875	7.1	7.7	8.3	8.9	9.4	9.8												
		2000	7.5	8.1	8.7	9.2	9.7													
		2125	7.9	8.4	9.0	9.5														
		2250	8.3	8.8	9.4	9.9														
		2375	8.7	9.2	9.7															
		2500	9.1	9.5																
	Field Accessories:																			
	Economizer	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1											

Factory Setting:
7.8 VDC

Field Setting:
Record field setting here
_____ VDC

Switch Range: *

	A	B	C
A	4.1 - 7.5		
B	6.9 - 8.7		
C	7.7 - 10.0		

* Overlap in A, B, C switch range designed for maximum field adjustment potential. For example 7.2 can be set at either A or B.

Fig. 60 — Example of Fan Speed Set Up Labels for Electro-Mechanical Controls

UNITS WITH SYSTEMVU™ CONTROLS

On units equipped with the factory-installed SystemVu controller the Fan Speed settings are accessed through the SystemVu interface.

1. Check the job specifications for the CFM (cubic feet per minute) and ESP (external static pressure) required.
2. Using the chart on the Fan Speed Set Up labels (see Fig. 61), calculate the RPM from the CFM and ESP for the base unit plus any field accessories (as listed on the label).

NOTE: The Fan Speed Set Up labels are located on the High Voltage cover in the Control Box.

3. Press any key on the SystemVu interface to activate the display backlight and then press the MENU key.
4. Using the UP and DOWN arrow keys highlight SETTINGS and then press ENTER.
5. Use the DOWN arrow key highlight the UNIT CONFIGURATIONS menu then press ENTER.

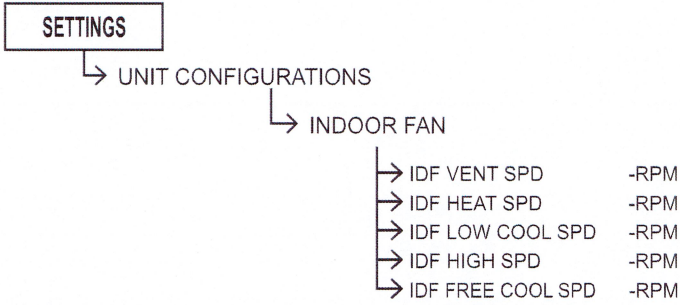
6. Highlight UNIT CONFIGURATIONS then press ENTER.
7. Highlight INDOOR FAN and then press ENTER.
8. Refer to the job specifications to set the following, determining the values per the RPM Calculator label (see Fig. 61). Use the UP and DOWN arrow keys and the BACK key to set the values. Press ENTER after setting each value to continue to the next selection.
 - IDF VENT SPD
 - IDF HEAT SPD
 - IDF LOW COOL SPD
 - IDF HIGH SPD
 - IDF FREE COOL SPD

For further details see the *FC/GC Series Single Package Rooftop Units with SystemVu Controller Controls, Start-up, Operation and Troubleshooting* manual.



MAIN MENU:

FAN SPEED SETUP (RPM)



↓ DETERMINE RPM FROM BELOW ↓

48TC003136 REV. -

RPM Calculator		ESP in. wg									
		0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0
UNIT MODEL NUMBER	CFM										
	1500	1425	1609	1764	1902	2028	2147	2260	2367		
	1625	1512	1688	1839	1974	2097	2212	2322			
	1750	1601	1768	1916	2047	2168	2280	2387			
	1875	1692	1850	1994	2123	2241	2351				
	2000	1784	1933	2073	2200	2316					
	2125	1878	2018	2153	2277						
	2250	1973	2104	2235	2356						
	2375	2069	2192	2317							
2500	2166	2282									
Field Accessories:											
	Economizer	65	65	65	65	65	65	65	65		

Fig. 61 — Example of Fan Speed Set Up Labels for SystemVu™ Controls