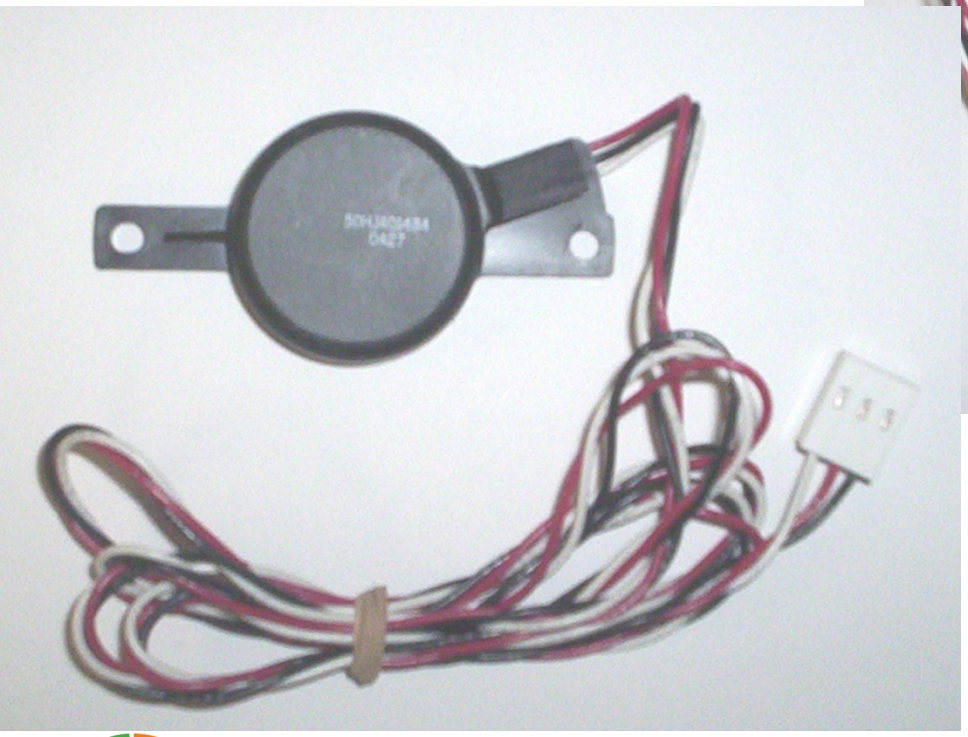
Hall Effect Sensor Overview



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Test IGC Board and Hall Effect Sensor

Inducer Unplugged
– readings from the circuit board

- Black meter lead on Pin #3 and red meter lead on Pin #1
- You should read 7.5-10 vdc
- Black meter lead on pin #3 and red meter lead on pin #2
- You should read 21-24 vdc

If outside these readings
– Replace IGC

Inducer Plugged in
– readings at circuit board connections

- System powered on, and the Thermostat turned to the off position or W removed from the unit.
- Same pin test point (1-3), then rotate the motor with your hand
- Every half turn reads <1 vdc, other half turn reads 6.5-9 vdc
- Same pin test point (2-3), rotate motor
- Should read 16.5-21 vdc continuously

Anything outside of readings
– Replace Hall Effect Sensor

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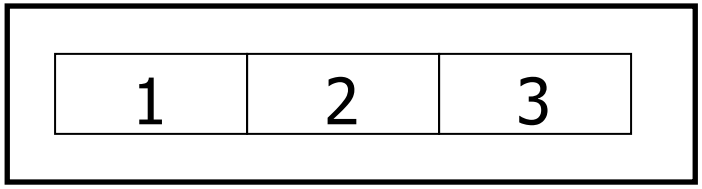
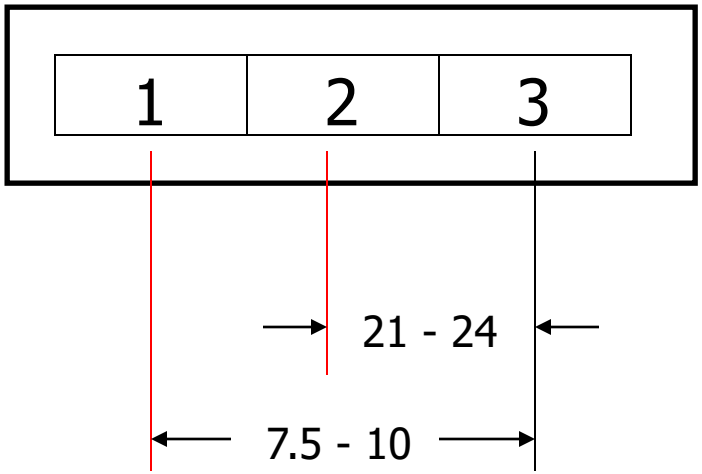
Hall Effect Sensor Troubleshooting

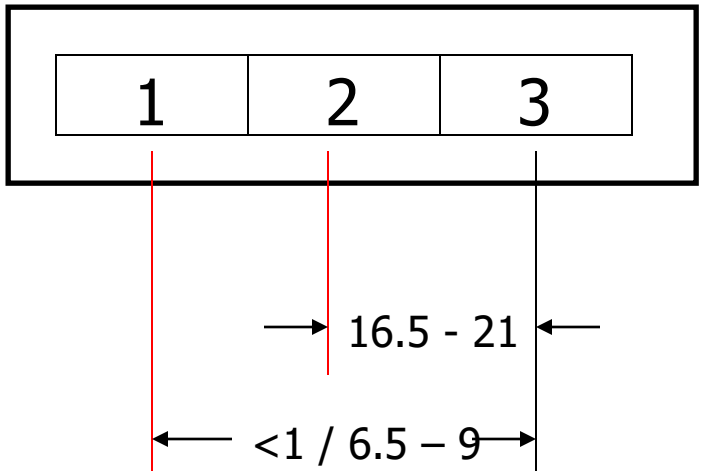
Three Wire Plug



Plug at Board (Unplugged)



Plug in the Board



DC Meter Required

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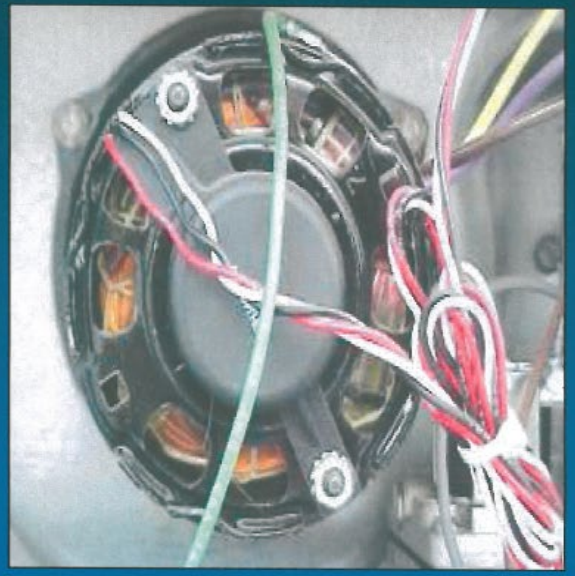
Hall Effect Sensor

Hall Effect Sensor

The Hall Effect Sensor is a magnetic device mounted on the induced draft motor

It sends a signal to the board to verify the motor is running at the correct speed



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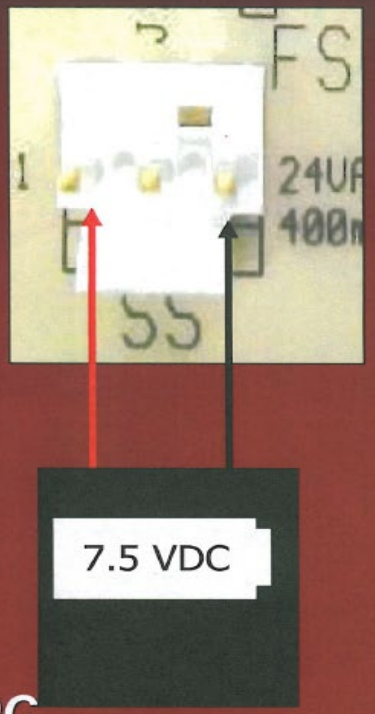
Hall Effect Sensor

Testing the Hall Effect Sensor, #1

1. De-energize the IGC board.
2. Unplug Hall Effect Sensor
3. Energize the IGC Board
4. No Heat/Cool/Fan call from T-stat
5. Set meter to read maximum 30 VDC
6. Connect black lead to pin # 3
7. Connect red lead to pin # 1
8. The reading should be between 7.5 & 10 VDC



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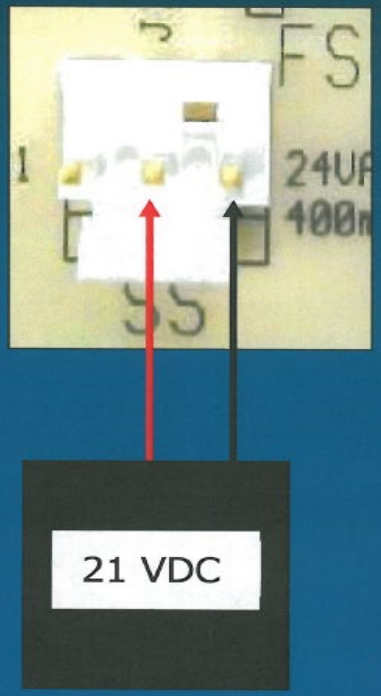
Hall Effect Sensor

Testing the Hall Effect Sensor, #2

9. Move the red lead to pin # 2
10. The reading should be 21-24 VDC

If either of these two readings are out of range replace the board.



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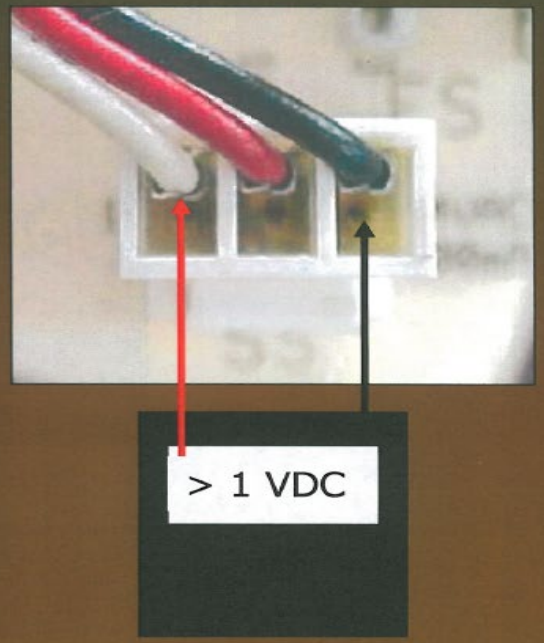
Hall Effect Sensor

Testing the Hall Effect Sensor, #3

1. Re-plug sensor to board
2. With power on and t-stat off
3. Connect red lead to pin # 1
4. Connect black lead to pin # 3
5. Rotate motor by hand
6. You should read less than 1 VDC on on half turn



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Hall Effect Sensor

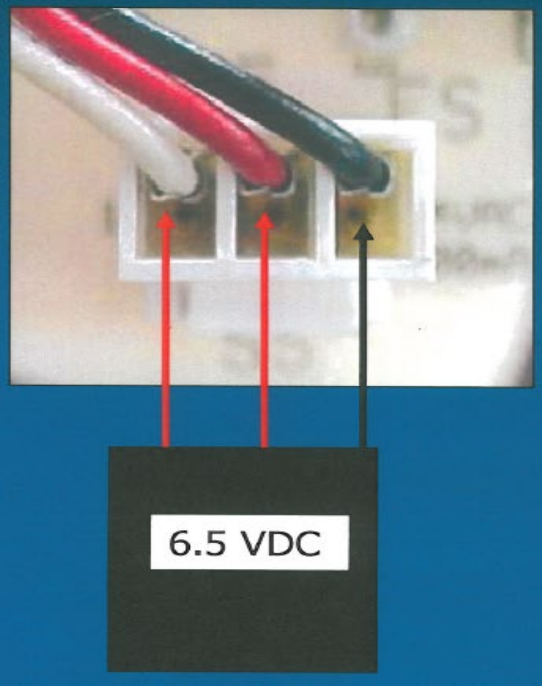
Testing the Hall Effect Sensor, #4

6. On the other half rotation you should read 6.5 – 9 VDC

8. Move the red lead to pin # 2

9. Reading should be between 16.5 & 21 VDC

If any of these three readings are out of range replace the sensor.



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