

Hall Effect Switch Troubleshooting

Tools needed:

Voltmeter capable of measuring DC volts

With the three-wire plug unplugged:

With power applied to the unit, unplug the three-wire plug and measure the pins as follows:

1. Connect the negative or black lead of the meter to pin three on the circuit board.
2. Connect the positive or red lead of the meter to pin one.
3. The meter should read between 7.5 and 10 volts DC.
4. Move the red or positive lead to pin two. It should read between 21 and 24 volts DC.
5. Replace the circuit board if these pins are outside these readings.

With the three-wire plug plugged in:

With power applied to the unit and the three-wire plug in place, measure the pins as follows:

1. Connect the negative or black lead of the voltmeter to pin three on the circuit board.
2. Connect the positive or red lead of the voltmeter to pin one.
3. Slowly rotate the induced draft motor. On half of one rotation of the induced draft motor shaft the voltage reading should be less than 1 volt DC. On the other half of one rotation the voltage reading should be between 6.5 and 9 volts DC.
4. If the voltage reading is not less than 1 volt DC on half of the rotation of the motor shaft and not between 6.5 volts and 9 volts DC of the other half of the shaft rotation, replace the Hall Effect Switch.
5. Move the red or positive lead to pin two. It should read between 16.5 and 21 volts. If not, replace the Hall Effect Switch.