

The background image shows a close-up of an industrial furnace transducer. A black cable with red, green, and black wires is plugged into a white connector. A yellow warning label with the word "LOW" and a triangle symbol is visible on the right. The text "4223-713" is printed on a label on the left.

Carrier ULN Furnace Transducer Troubleshooting Code 23.3 edition

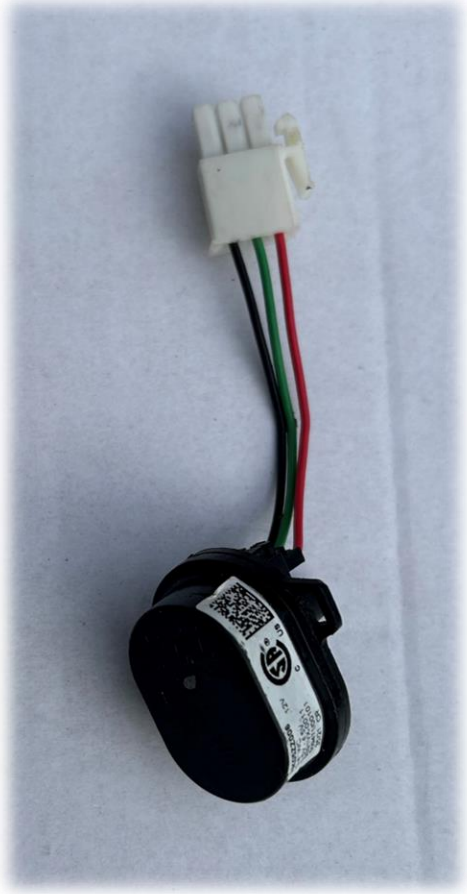
Fall 2025

Sigler

(Like a stuck closed pressure switch).

23	3	Pressure detected over 0.15" (~0.65Vdc signal to gnd, 0" = ~0.500Vdc)
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Pressure Transducer



- Used instead of a pressure switch.
- Converts pressure to a voltage signal.
- Used by the furnace control to precisely adjust inducer speed and pressure through heat exchanger.
- It has a constant DC voltage output when the unit is powered.

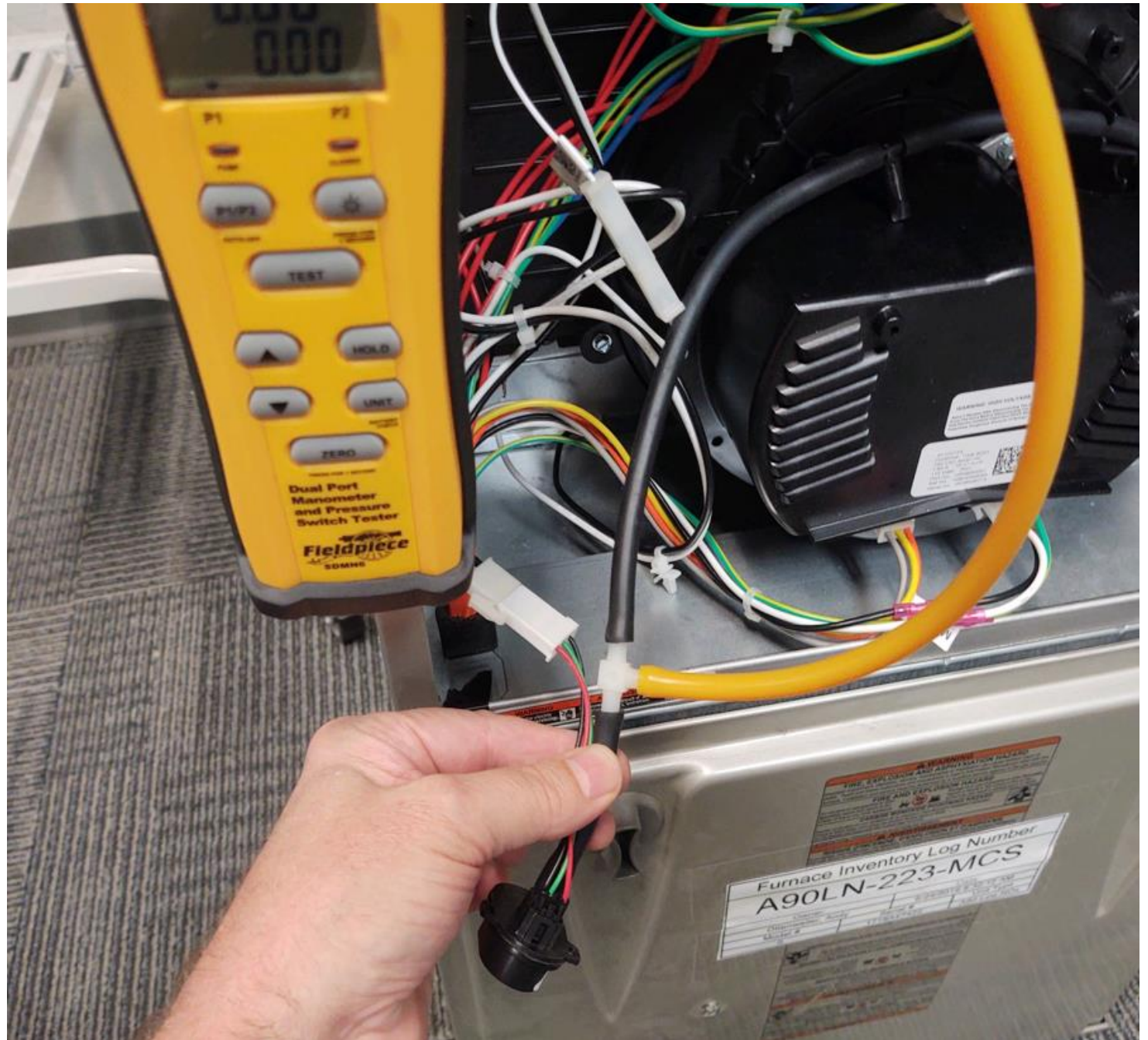
Transducer operation:

The transducer reads the pressure and outputs a DC voltage based on the pressure it is seeing.

You must know the pressure when testing the DC voltage output.

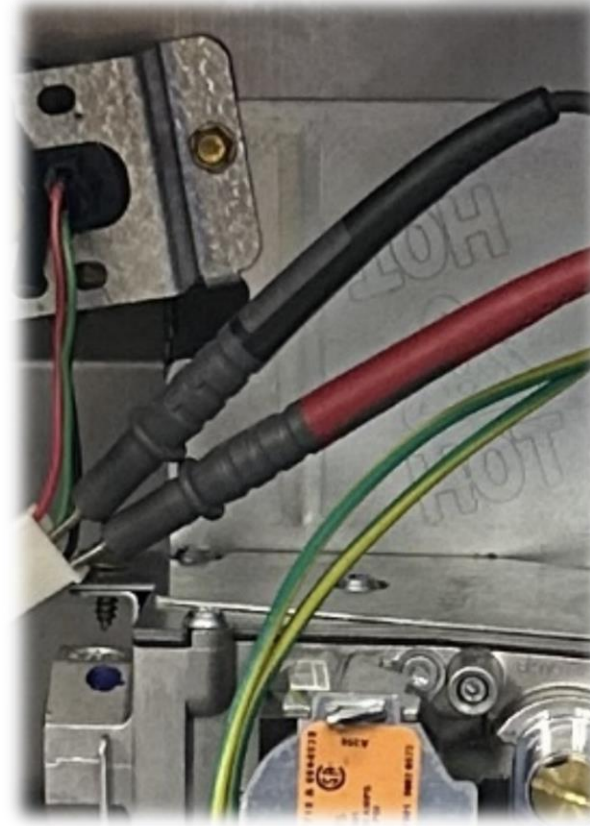
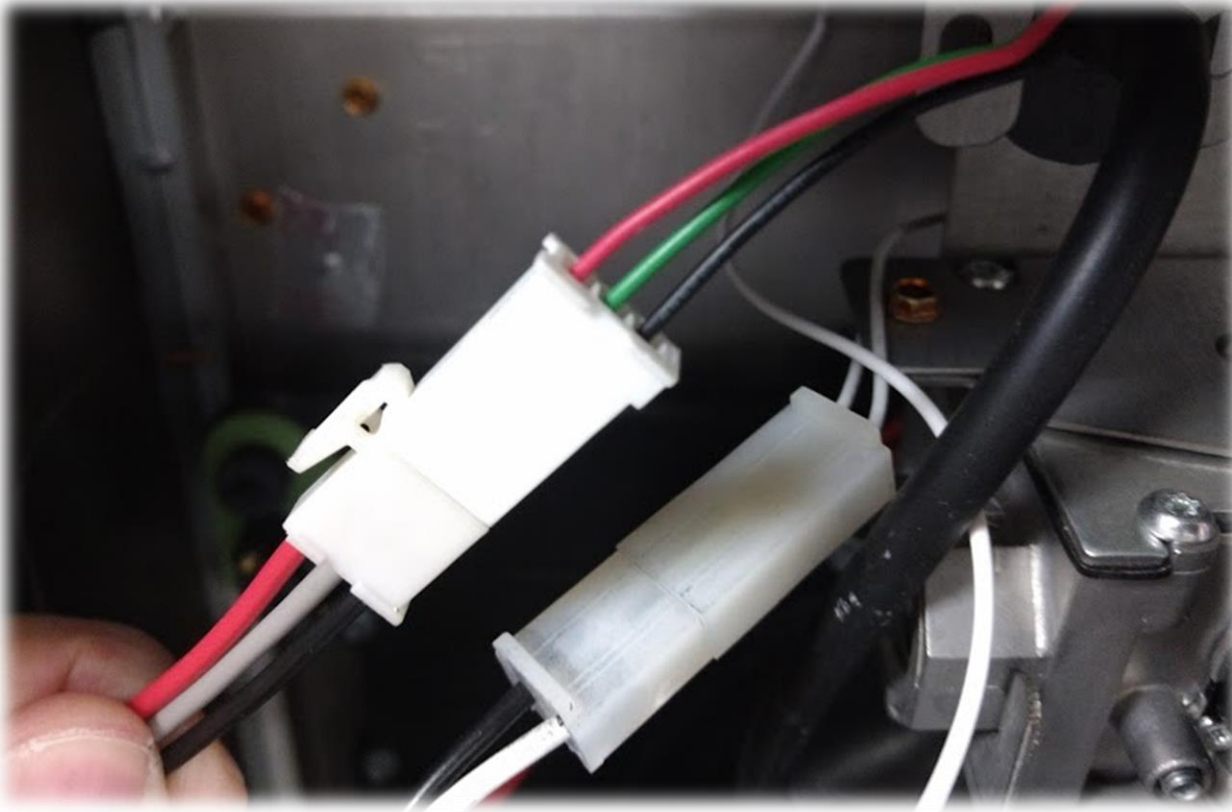
If the DC voltage output does not match the pressure the transducer is out of calibration and should be replaced.

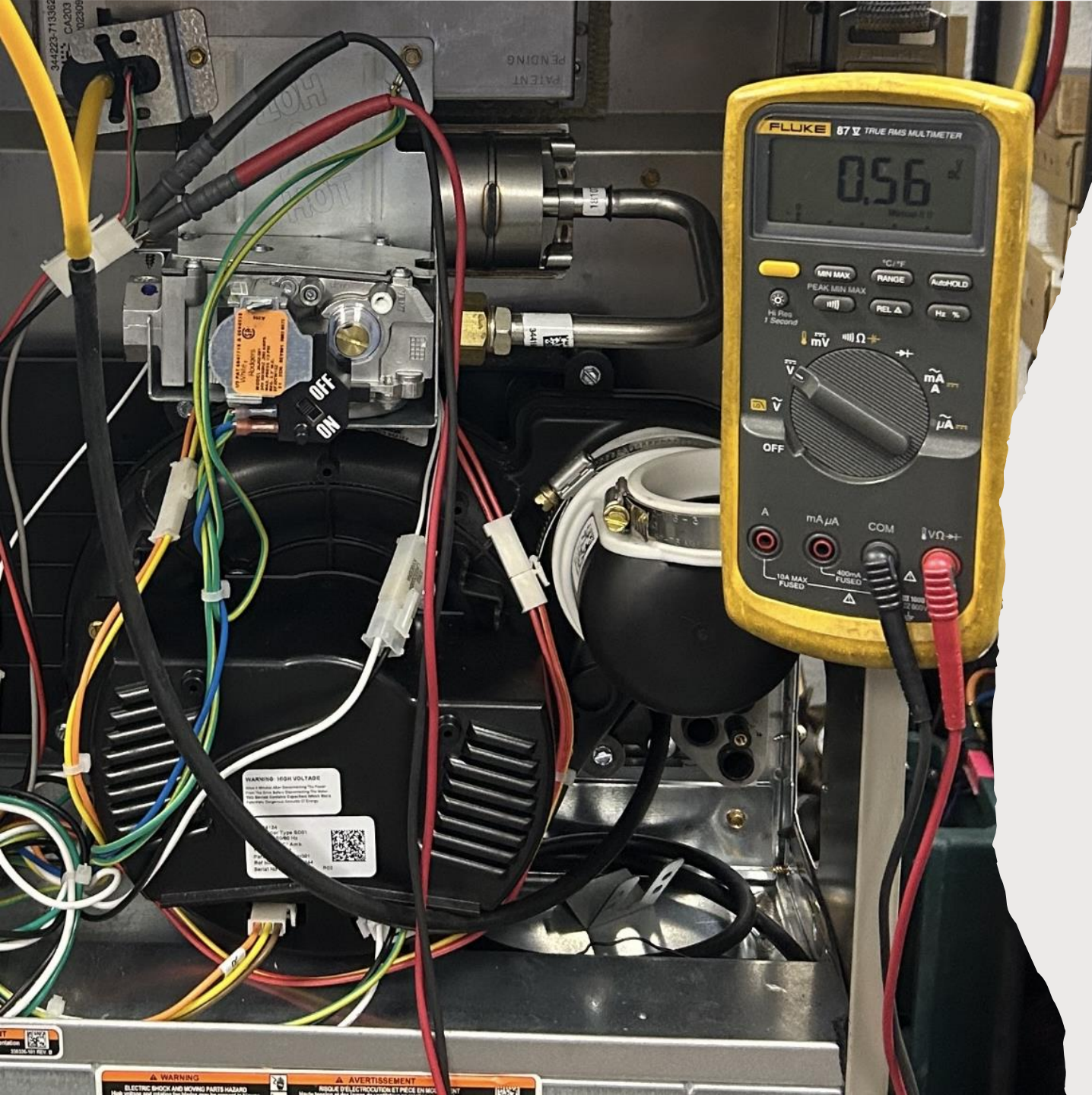
The DC voltage output can be measured with or without the inducer motor running



How to test the Pressure Transducer in standby mode→

1. Furnace power should be on but with no call for heat. (Standby)
2. Remove the tubing from the transducer.
3. Your voltmeter probes go in the back side of the plug.
4. Check for Supply DC volts at Red and Green Wire.
5. Check for Feedback DC volts at the Black and Green Wire.





- This picture shows an example of the Feedback/Output DC volts
- This transducer is good because the output dc volts are within the .43 to .58vdc range at 0"wc negative pressure.

HK05ZZ013=Latest Pressure Transducer Part Number

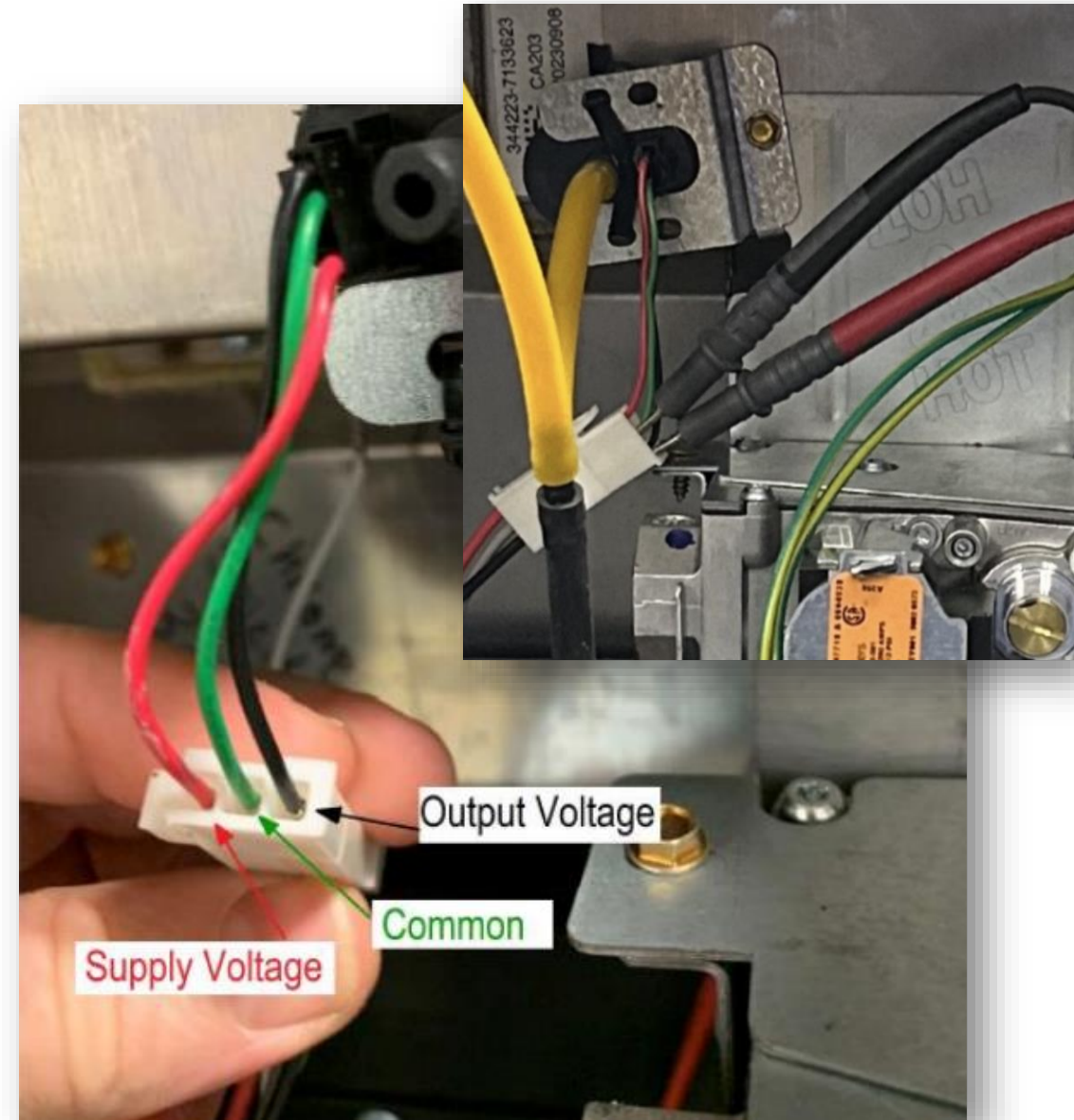
Red Wire = Supply/Input Voltage→ 12vdc

Black Wire = Feedback/Output Voltage → .50vdc
Acceptable range→ .43vdc to .58vdc

Green Wire = Ground

Red and Green wire = Supply/Input voltage
Black and Green wire = Feedback/Output of feedback voltage

If the Feedback/Output Voltage is greater than .65 volts you get a 23.3 and the transducer should be replaced!



23.3 code?

Here's what we need from you for warranty.

**Use a
voltmeter
capable
of
reading
as low as
.40vdc!**

Transducer standby Supply/Input Voltage .__ vdc

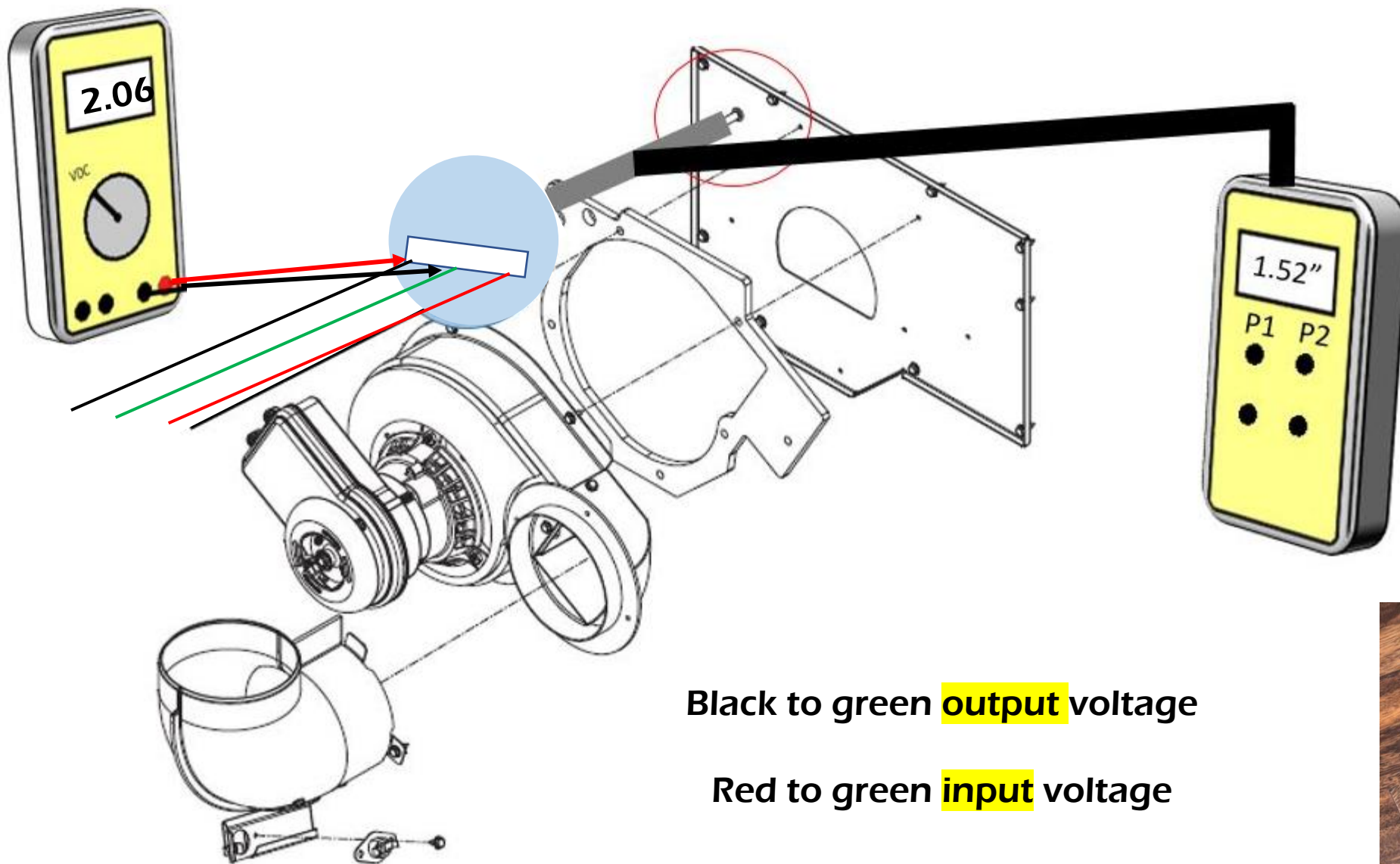
**Transducer Standby Feedback/Output Voltage
.__vdc**

**Transducer Standby Negative Pressure .__"w.c.
(If the hose is off the transducer, then it's 0"w.c.)**

**Include these numbers on the Warranty SCA form
with the faulty transducer to receive credit..**



Additional Transducer info...



Black to green **output** voltage

Red to green **input** voltage



Target Pressures – BLUE CONTROLS

Heating Call Sequence	80% furnaces				90% furnaces			
Unit Size (KBTU/h)	40	60	80	100	40	60	80	100
Model Plug	HK70EZ024	HK70EZ026	HK70EZ028	HK70EZ029	HK70EZ032	HK70EZ034	HK70EZ036	HK70EZ037
Startup (Heat call initiation)								
Inducer pressure (In.W.C.) (must be less than)	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Transducer feedback (VDC) (must be less than)	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
PrePurge and Ignition (15s+ igniter warmup)								
Inducer pressure (In.W.C.)	0.60	0.65	1.10	0.80	1.65	1.40	1.50	2.00
Transducer feedback (VDC)	1.10	1.15	1.60	1.30	2.15	1.90	2.00	2.50
Flame Stabilization								
Inducer pressure (In.W.C.)	0.70	1.00	1.30	1.10	2.15	1.80	1.80	2.20
Transducer feedback (VDC)	1.20	1.50	1.80	1.60	2.65	2.30	2.30	2.70
Time at this pressure (seconds)	2	-	-	10	10	-	-	-
Run pressure								
Inducer pressure (In.W.C.)	1.90	1.25	1.55	1.45	2.40	2.25	2.35	2.40
Transducer feedback (VDC)	2.40	1.75	2.05	1.95	2.90	2.76	2.85	2.90
Post Purge	Inducer RPM will remain the same as it was when the heat call was terminated, so pressure and resultant Transducer voltage will rise very slightly as the unit cools							