Procedure for Identifying Large Gauge Problems (Comparing Channels on the Same Gauge)

The following procedure is designed to identify a large problem with a gauge such as a failing pressure sensor, and should be conducted periodically. The procedure involves using a Blower Door or Duct Blaster® fan to generate a pressure signal, to measure the pressure signal on both channels of a single gauge, and to then compare the readings with each other.

Note: This procedure does not replace the need for gauge re-calibration every two years.

- 1. Connect a piece of tubing from the pressure tap on a Blower Door or Duct Blaster fan to a "T" tubing connector (one is provided with each digital pressure gauge).
- 2. Connect the open ends of the "T" tubing connector to the **Input** Taps on Channel A and Channel B of the gauge being tested.
- Turn the gauge ON and leave it in the PR/PR Mode (gauge is measuring pressure in Pascals on both Channels) with a 1 Second Time Average.



"T" tubing connector

- 4. Turn up the fan speed controller on the Blower Door or Duct Blaster fan until the pressure readings on the gauge are approximately -50 Pa (anywhere between -45 and -55 is fine).
- 5. Change the time average setting to **Long Term Average** using the **TIME AVG** button.
- 6. Wait approximately 30 seconds for the readings to completely stabilize, and then compare the two readings to each other. The readings should be within 1% of each other (for example if Channel A reads -49.6 Pa, then Channel B should read between -49.1 Pa and -50.1 Pa).
- 7. With the fan continuing to run, move the tubing from the **Input** Taps on Channel A and Channel B to the **Reference** Taps. After the tubing is attached, press the **START** button to begin a new long-term average reading. Wait approximately 30 seconds for the readings to stabilize and once again compare the two readings to each other.
- 8. If the difference in readings from either comparison is larger than 1%, send your gauge to TEC to determine the cause of the problem.

Note: You can re-start the long-term average reading by pressing the **START** button. This clears the long-term average buffer, re-zeros the pressure sensors and starts a new measurement period.



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