

# Airflow Balancing Instructions

## Instruction Sheet: EV Series Premium

### BALANCING

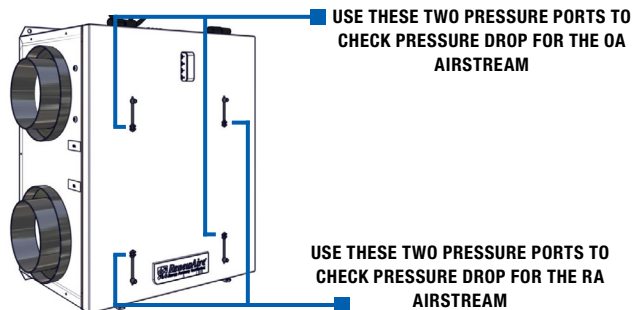
Balancing an airflow is done by setting the Outdoor Air fan speed and then adjusting the Return Air fan speed to eject the same or somewhat less air to the outdoors.

Equipment required for testing airflows:

- A magnehelic gauge (or manometer) or other device capable of measuring 0–1.0 in. w.g. of differential pressure.
- 2 pieces of natural rubber latex tubing, 1/8" I.D., 1/16" wall thickness works best.

Manometers are relatively inexpensive devices that are readily available from online retailers. Accuracy within the range of 0–1.0 in. w.g. is the critical measure. Water manometers generally have graduations of 0.1" that are difficult to accurately determine. For all manometers, there are two plastic tubes that connect at the manometer and then the other ends go to pressure ports on the EV Premium.

Individual differential static pressures (DP) are measured ACROSS the core, using the installed pressure ports located on the removable door.



- Verify the unit has clean filters in place.
- Open the pressure port caps for the OA airstream and then insert the tubing into the openings about 1".
- Take a differential pressure reading for the OA airstream and compare the pressure drop to the chart on the unit or in the IOM to obtain the CFM. Adjust the potentiometer marked OA-L to obtain the desired CFM. Record the CFM setting for future reference.
- Take a differential pressure reading on the RA airstream and compare the pressure drop to the chart on the unit to find the CFM of the RA airstream. Adjust the potentiometer marked RA-L to obtain the desired balance. Record the CFM setting for future reference.
- Install a jumper between the 24V and High Speed terminals to force the unit into Boost (high speed) mode.
- Repeat the process for both airstreams to set both the CFM and balance using the OA-H and RA-H potentiometers. Record the CFM setting for future reference.
- After adjusting the potentiometers, take additional readings as needed to verify that fan speed settings are correct.

