Heat Pump or Electric Heating Systems

Unit Model Number _____

1. Operate the emergency heat mode (heaters and blower only) for 10 minutes.
2. Confirm that the desired fan speed and heaters are energized.
3. Measure voltage at the service disconnect.   _____VAC
4. Measure current draw at the service disconnect.   _____Amps
5. Measure supply air temperature at three points and average.   _____°F
   *Avoid Radiant Heat in the supply duct by shielding the temperature probe.
6. Measure return air temperature.   _____°F
7. Avg. Supply temperature minus return temperature equals: _____°F TD

Single Phase (1φ) Systems - Complete the formula:

_____VAC x _____Amps x 3.414 / 1.1 / _____°F TD = _____CFM

Three Phase (3φ) Systems - Complete the formula:

_____VAC x _____Amps x 3.414 x 1.73 / 1.1 / _____°F TD = _____CFM

Gas Heating Systems

Unit Model Number _____

*Enter the type of gas (Nat / LP) _____ and burner orifice size _____
1. Operate the heat mode (burners and blower only) for 10 minutes.
2. Turn the fan switch to (on) at the thermostat to energize cooling fan speed.
3. Locate input BTUH on the furnace nameplate.   *_____BTUH in
4. Measure combustion efficiency or enter estimate.   _____% EFF
5. _____BTUH in x _____% EFF equals: _____BTUH out
6. Measure supply air temperature at three points and average. _____°F
   *Avoid Radiant Heat in the supply duct by shielding the temperature probe.
7. Measure return air temperature.   _____°F
8. Supply temperature minus return temperature equals: _____°F TD
* Burner orifices and manifold pressure must be correct for proper input BTUH on gas furnaces.
You may also check the input BTUH by clocking the gas meter on Natural gas systems.

Complete the formula:

_____BTUH out / 1.1 / _____°F TD = _____CFM

Oil Heating Systems (combustion analysis advised) Unit Model Number _____

1. Determine fuel flow based on nozzle size and pump pressure. _____GPH
2. _____GPH x 140,000 (for #2 fuel oil) equals: _____BTUH in
3. Enter _____BTUH in at step 3 above and complete steps 1 - 8 as you would a gas heating system.