

CLOCKING THE METER

1. Make sure that no other gas appliances are on. Turn water heater control knobs to "pilot". Turn off thermostats to any furnaces. Turn on the unit in question.
2. Go to the gas meter. Most meters have two test dials on them. You want to look at the TWO FEET dial. (If it is a real old meter, it may have just a HALF FOOT or a ONE FOOT dial...these can be used, but you have to adjust your formula, and the potential for error is greater).
3. Clock the amount of time it takes (seconds) for the dial to make one full revolution.
4. Calculate cubic feet per hour. Divide the number of seconds from step 3 into 3600 (the number of seconds in an hour). Multiply the product by 2 (for the TWO FEET dial). This tells you INPUT CUBIC FEET PER HOUR.
5. Convert cubic feet per hour to BTUs per hour. Take the product from step 4 and multiply it by 1000, or add three zeros to it. (This is using the value of 1000 BTUs per cubic foot of natural gas. Engineering standard value is 1050, Albuquerque natural gas usually hovers around 860, and barometric pressure and outdoor temperature have an influence on BTU value. We are using 1000 to keep it simple and close to engineering standards).
6. Compare the product of step 5 to the rated input of the machine in question, and the desired input based on derating calculations.
7. Be sure to return all controls you adjusted in step one to normal positions.

EXAMPLE

- A. The unit you are working on shows an input rating of 125,000 BTUs.
- B. You clock the TWO FEET dial for one revolution at 29 seconds.
- C. Doing the math...3600 divided by 29 (step 2) equals 124. Multiply that times 2 equals 248 cubic feet per hour.
- D. Multiply that by 1000 (step 5) gives you 248,000 BTUs!
- E. Comparing your findings with the input rating on the machine (step 6) indicates that something is terribly wrong...the machine appears to be way overfired.

