

## Gas Furnace Basics: Part 1 – Initial Assessment

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Join the WxTV crew as we dive deep into a clean, tune, and test of a gas furnace. In Part 1 of this series, our master plumber Mike Campbell guides us through the initial inspection, clocks the gas meter, and calculates proper combustion air. (Running Length: 18:44) <http://wxtvonline.org/2010/05/gasfurnace-1/>

### Learning Objectives

By viewing this video, participants will be able to:

- Describe the reason for finding volume of appliance combustion air space
- Discuss how to clock a gas meter
- Describe geographic considerations for modifying calculations
- Explain several inspection points when diagnosing a gas furnace

**IREC Relevance:** <http://www.irecusa.org/credentialing/key-docs/>

*(This episode of WxTV may contain content relevant to all JTAs listed below – those JTAs which are underlined relate specifically to its content)*

- JTA – Crew Leader
- JTA – Energy Auditor
- JTA – Quality Control Inspector
- JTA – Retrofit Installer Technician

### Weatherization Assistance Program Standardized Curricula:

<http://www.waptac.org/Training-Tools/WAP-Standardized-Curricula.aspx>

*(This episode of WxTV may contain content relevant to all Standardized Curricula listed below – those Standardized Curricula which are underlined relate specifically to its content)*

- Crew leader 2.0
- Energy Auditor – Single Family 2.0
- Health and Safety Training for Programmatic Staff
- Heating Systems for Energy Auditors/Inspectors
- Lead Safe Weatherization (LSW)
- Mechanical Systems – Multifamily
- Quality Control Inspector 2.0
- Train the Trainer
- Weatherization Installer/Technician Fundamentals 2.0
- Weatherization Installer/Technician Mobile Homes
- Weatherization Energy Auditor – Single Family
- Weatherization Technical Monitor/Inspector

## Key Terminology

Air returns

Air supply

British Thermal Units (BTU)

Combustion appliance

Combustion analyzer

Diagnostic

Ductwork

Drafting

Gas valve

Heat exchanger

Heat rise temperature

Manifold

Thermocouple

## Supplemental Materials

### Web Resources

<http://www.nrel.gov/>

<http://energy.gov/>

<http://www.resnet.us/>

## Video Information

Location: Bozeman, MT

Individuals Featured: Mike Campbell

Montana State University Extension Housing Program

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