

Basic Furnace Training

February 8-12, 2016

Begins Monday, February 8 at 1:00 P.M. and ends on Friday, February 12 at 12:00 P.M.

Sponsored by the Montana Department of Public Health and Human Services
Low-Income Weatherization Program and
The Montana State University Extension Housing Program

For individuals needing an understanding of furnace fundamentals through classroom and hands-on technical training. Topics include: HVAC tools; electrical systems; combustion theory & testing; worst case CAZ testing; gas furnace burners, blowers, motors, air flow, controls and operating safety.

Training Location - Bozeman, Montana

Montana Weatherization Training Center, 705 Osterman Dr. Ste C, Bozeman, MT. From I-90 Bozeman Exit 309 proceed East on Frontage Rd (Highway 10) ½ mile to Osterman Dr. From Bozeman Main St. proceed East until Main turns into Frontage Rd (left lane). Go ½ mile past I-90 underpass to Osterman Dr.

Cost and Registration:

No-charge to sub-grantees and contractors with the Montana Low-Income Weatherization Program.
\$750.00/person for non-program participants.

Pre-registration is required for all attendees! - Please fill out registration form.

Lodging

Participants are responsible for arranging overnight accommodations. A block of rooms for this training is reserved at the Best Western Plus GranTree Inn, 1325 North 7th Avenue, Bozeman, MT
Call 406-587-5261 and ask for the MSU Weatherization room block.

Book rooms before January 25, 2016

Additional Information

To request disability accommodation or inform us of special dietary or other need please call Mike Roberty (406) 994-6386. Sponsored by the Montana Department of Public Health and Human Services Low-Income Weatherization Program and Montana State University Extension Service Housing Program.

Registration Form

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Name(s) _____

Agency _____

Address _____

City _____ State _____ Daytime Phone _____

Please email mroberty@montana.edu (preferred) or mail by January 25, 2016 to Mike Roberty,
Montana Weatherization Training Center, 705 Osterman Drive,
Bozeman, Montana 59715, (406) 994-6386

MONTANA WEATHERIZATION TRAINING CENTER

AGENDA
 Basic Furnace Training
 February 8-12, 2016

| Mon Feb 8 | Tues Feb 9 | Wed Feb 10 | Thu Feb 11 | Fri Feb 12 |
|--|---|---|---|---|
| NO CLASS | <p>8:00 AM</p> <p>Electrical – Volts, Amps, Ohms, Electrical Troubleshooting Techniques</p> <p>Lab - Electrical</p> | <p>8:00 AM</p> <p>Gas Furnace Furnace Design, Gas System Components, Furnace Controls, Systems Controls & Components</p> <p>Burners Theoretical Flame Characteristics, Combustion Systems, Pilot Burners</p> | <p>8:00 AM</p> <p>Blowers & Motors Motor Fundamentals, Belt Drive, Direct Drive</p> <p>Air Flow CFM/BTU, Static Pressure, Filters</p> <p>Minimum Montana WAP Furnace Standards</p> <p>Furnace Worksheet</p> | <p>8:00 AM</p> <p>Lab Furnace Worksheet</p> |
| <p>1:00 PM</p> <p>Introduction</p> <p>Pressure</p> <p>Temperature</p> <p>Heat Transfer</p> <p>HVAC Tools – Manometer, Draft Gauge, Thermometers, Multi-meters (Volts/Amps/Ohms), CO Detector, Combustion Analyzer</p> | <p>1:00 PM</p> <p>Combustion – Theory & Combustion Analysis</p> <p>Lab- Combustion Analysis</p> <p>Worst Case CAZ – Combustion Air Zone (CAZ) Analysis</p> <p>Lab- Worst Case CAZ</p> | <p>1:00 PM</p> <p>Controls Gas Pressure Regulators, Gas Valves, Automatic Combination Gas Valves</p> <p>Ignition Standing Pilots, Pilot Re-Ignition Systems, Direct Burner Ignition</p> <p>Safety & Operating Controls Safety Controls, Operating Controls, System Controls</p> | <p>1:00 PM</p> <p>General Safety & Lab Safety</p> <p>Lab Furnace Worksheet</p> | NO CLASS |