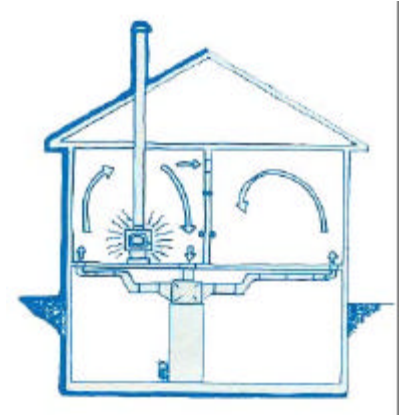


## #2 Space heating with wood

### WHAT IS A SPACE HEATER?

A space heater is a heating appliance that is not directly connected to any kind of heat distribution system. A free-standing wood stove is an example of a space heater.

A space heater provides direct heat to the room in which it is located. If there is a means of distributing the air, it can also heat other rooms indirectly. For example, a 111 square metre (1200 square foot) bungalow with a forced air distribution system can be heated almost entirely by a properly sized, well-placed wood space heater.



### CHOOSING A SYSTEM

What is most important to you?

- watching the fire?
- cutting your heating bill?
- the unique comfort of direct heat?
- efficient circulation of heat to all parts of your house?

### What woodburning system can satisfy all of these needs?

#### Furnace?

You can't watch the fire or enjoy the comfort of direct heat with a furnace. However, a furnace can circulate heat to all parts of the house and can reduce your heating costs. A furnace may be a suitable choice for a very large or sprawling house.

#### Masonry Fireplace?

Masonry fireplaces are intended for occasional use, and are not usually expected to make a significant contribution to house heating. They are attractive, offer the pleasures of fire viewing and the comfort of direct heat and, if properly installed and operated, can help moderate your heating bills.

#### Factory-Built Fireplace?

There are a number of different factory-built fireplaces on the market. Like masonry fireplaces, most of these attractive appliances are intended for occasional woodburning. High-efficiency units can be used for space heating. See fact sheet #9 for detailed information on the different types of fireplaces.

## Space Heater?

Properly installed and operated, a space heater can help cut your heating bill while providing the unique comfort of direct heat. Depending on the size and layout of your house, this heat can be circulated fairly efficiently. Units with glass doors are available if watching the fire is important to you.

## Fireplace Insert?

Properly installed and operated, a fireplace insert has the same attributes as a modern space heater.

*For more information on fireplaces, inserts and woodburning furnaces, consult these other WISE fact sheets:*

*#9 Fireplaces*

*#10 Fireplace Inserts*

*#12 Central Heating With Wood.*

Today's new homes are much better insulated and energy efficient. In a recently built home, a surprisingly small space heater can meet a significant portion of your heating needs. Consult a WETT certified professional for more information.

## SPACE HEATER SAFETY

### Pick The Right Size

What is the most common mistake made by people buying a wood space heater? Choosing one that's too big! An oversized space heater will end up running below capacity. This will lead to poor combustion and creosote build-up - factors that can increase the risk of a chimney fire.

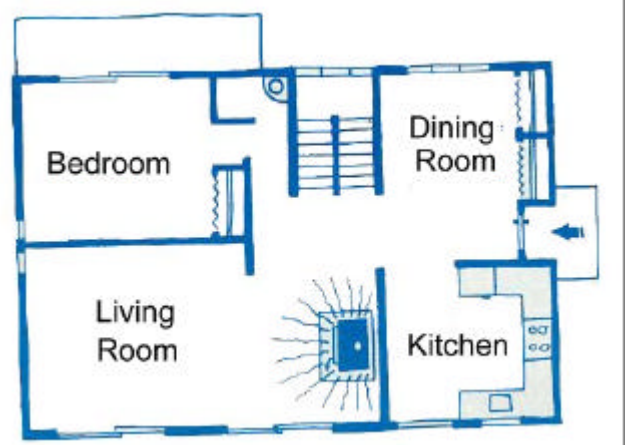
The age, size and layout of your home will all affect the size of space heater you need. Talk to a WETT certified professional to find out what size of space heater will meet your needs safely.

### "Location, Location and Location"

Be sure to locate your wood space heater in the room where you spend most of your time. You'll not only benefit from the direct heat and the enjoyment of watching the fire, you'll also be there to tend the fire.

Think about where you spend your time. Most people locate their space heaters in the living room or family room.

Sample space heater location



## Heat Distribution Options

If you want your space heater to heat more than the room where it's located, you'll need to look at heat distribution options. Consider:

- operating the fan of your forced-air oil, gas or electric furnace continuously to carry heat produced by the space heater into other rooms
- installing grilles in walls near ceiling level to allow warm air to flow from the room where the space heater is located. Provide another grille at floor level or an open doorway to ensure that cooler air can come back into the room. (This is not allowed in all areas, so check with your local building office first).
- mounting a small fan at the top corner of a doorway to encourage warm air movement into another room or hallway.

For safety's sake, the ductwork serving a forced-air heating system should **never** be connected, directly or indirectly, to a space heater. Usually, just turning on the furnace fan will dramatically improve the distribution of heat from a space heater. A WETT certified professional can help you decide what distribution strategy will work best for you.

Virtually all the woodburning appliances now on the market have been tested and "certified" or "listed" by one of three recognized testing and certification agencies:

- the Canadian Standards Association (CSA),
- Underwriters' Laboratories of Canada (ULC),
- Warnock Hersey Professional Services



Look for one of these logos on the label of a certified appliance.

## Installation, Operation and Maintenance

A safe space heater is:

- certified and labeled by a recognized certification agency
- installed with a properly sized and connected flue pipe and chimney suitable for woodburning
- installed with proper clearances from combustible materials
- operated correctly to produce a clean-burning fire
- regularly inspected and maintained.

Check with your local building inspector to find out if you need a building permit before installing a space heater. For more information on how to safely install, operate and maintain your space heater, refer to the other fact sheets in the WISE series.

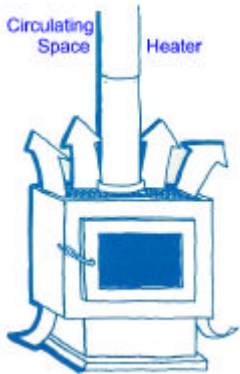
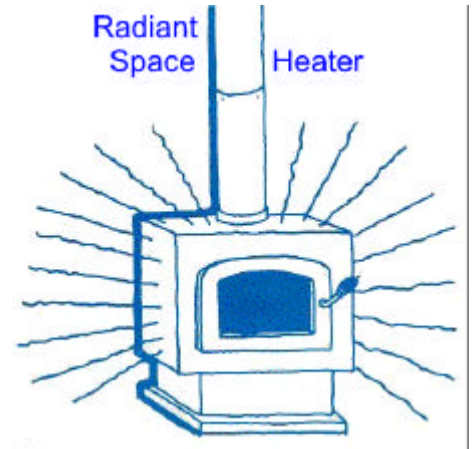
## AN EQUIPMENT GLOSSARY

### Cooking Range

A wood-fired appliance intended primarily for cooking. Can also be used for space heating.

### Radiant Space Heater

A space heater designed to emit direct radiant heat from all sides.



### Circulating Space Heater

A space heater with a sheet metal or ceramic tile shell surrounding the firebox. Room air is heated as it flows between the firebox and the outer shell.

A circulating heater has lower surface temperatures than a radiant heater.

*This fact sheet is intended only to provide an introduction to the topic of "Space heating with wood" not a "how to" manual! Be sure to consult a WETT certified professional for more detailed information and explanations.*

## The WISE Fact sheet Series

1. Is Your Wood Heat Installation Safe?
2. Space Heating With Wood
3. Appliance and Flue Pipe Clearances
4. Reducing Clearances With Heat Shields
5. Chimneys
6. Flue Pipes
7. Operating Your Appliance ...Safely
8. Maintaining Your Heating System
9. Fireplaces
10. Fireplace Inserts
11. Purchasing, Processing and Seasoning Wood
12. Central Heating With Wood

## WISE is supported by:

- Ministry of the Solicitor General
- Ministry of Housing
- Ministry of Energy Ontario
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## Wood Energy Technical Training (WETT)

The Wood Energy Technical Training Inc, is a non-profit, educational institution established in 1988. Provincial affiliates of WETT Inc are dedicated to chimney and venting system safety, and to the elimination of residential chimney fires, carbon monoxide intrusion and other chimney related hazards that result in the loss of lives and property. WETT devotes its resources to educating the public, chimney service professionals, and other fire prevention specialists about the prevention and correction of chimney and venting system hazards.

WETT has developed a training and certification program for wood heat appliance installers, inspectors, chimney sweeps and other professionals called the "Wood Energy Technical Training" (WETT) program. Be sure that any wood heat professional you consult is WETT certified. Look for the WETT logo, it's your best guarantee of reliable advice. For additional information, contact:

*Wood Energy Technical Training Inc* at 1-888-358-9388 or fax at 1-416-968-6818 or email at [info@wettinc.ca](mailto:info@wettinc.ca)

The local British Columbia affiliate is the Wood Energy Technicians of British Columbia, aptly named "*WETBC*". They can be reached at [zigi@shaw.ca](mailto:zigi@shaw.ca) or phone/fax is 1-604-941-4172. Our web site is at [www.wetbc.ca](http://www.wetbc.ca)

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