



# Your Heating and Cooling System

Purchase the most efficient heating and cooling system you can afford. Look for the Energy Efficiency Ratio when comparing the efficiency of an air conditioning unit. EER indicates a unit's cooling capacity in BTU's divided by the number of watts required to operate it. The higher the EER number, the more efficient the unit. An air conditioner with an EER of 9 will provide 50% more cooling than a unit with an EER of 6. If the house is well insulated and air tight, a smaller heating/cooling unit will be adequate.

The electric heat pump is a system used for both heating and cooling. While costing several hundred dollars more initially, the electric heat pump will provide you with a savings in the long run as compared to electric resistance heat. When in the heating mode, the pump is two or three times more efficient than heating by electric resistance units. However, in the cooling mode, it may be somewhat less efficient even though the same principle as refrigerated cooling is applied. When possible, place your unit in the attic, to save floor space and reduce noise.

Air-conditioning specialists state that units placed in conditioned spaces are about 5% more efficient than those placed in non-conditioned spaces. Have the ducts wrapped with insulation or install ducts made of insulating material. Make sure there are no leaks in ducting where it is connected together (Illustration 1).

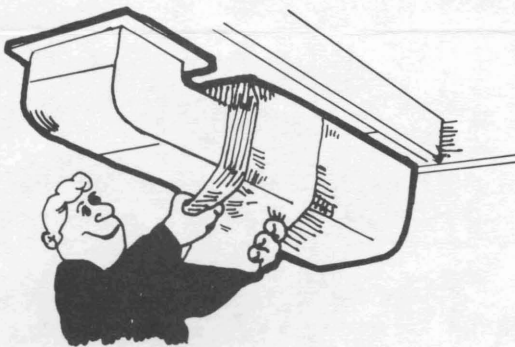


Illustration 1

If you are considering a fireplace, remember they add to the cost of the house and are expensive to fuel unless you have an abundant supply of wood. If used

in conjunction with a central heating system, the chimney will draw up the system's heated air. Also much of the fire's heat goes directly out the chimney. However, there is much you can do to increase your fireplace's efficiency.

A damper to regulate the draft is important. The damper should be closed when a fire is not burning to prevent loss of heat in the home. When a source of outside air for combustion is provided, the warm air will not be drawn out of the house (Illustration 2).

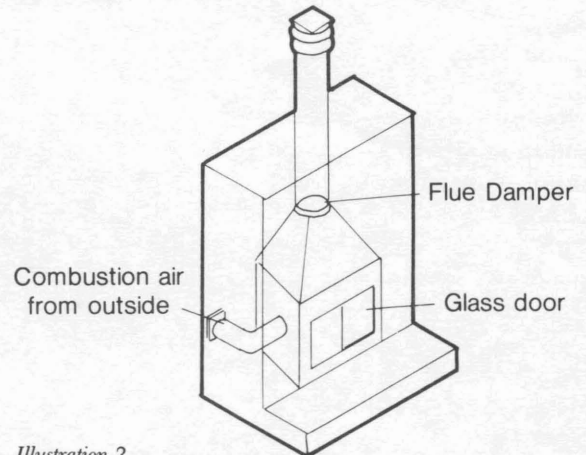


Illustration 2

Both masonry and prebuilt fireplaces have advantages. A masonry fireplace radiates heat hours after the fire has gone out. When located on the inside walls, this heat can be used more fully. Heat-circulated fireplaces like other prebuilt units take the guesswork out of fireplace construction. Heat-circulating fireplaces also provide radiated heat from the fire plus circulating convected heat. Heated air is circulated into the room by means of a vent located above or beside the fire box.

Next to the heating and cooling system, the water heater is the greatest user of energy in the home. Select a water heater adequate to meet your needs but not excessive in size. A 40-gallon gas heater or 50-gallon electric heater will provide enough hot water for the average family. An oversized unit requires energy to keep unused water hot while an undersized unit cannot supply a sufficient amount of water. A water heater that has built-in insulation plus insulated water lines will also require less energy for heating. Save on future costs of heating water by locating the heater near the clothes washer, kitchen and bathrooms.

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**Dear Home Buyer:**

Fifty to seventy-five percent of the energy used in most homes goes for heating and cooling. Because heating and cooling systems are the prime energy users, careful planning, selection and maintenance of the equipment is important.

This letter series and other educational programs by the Texas Agricultural Extension Service provide information which will help you plan your home. If you would like to receive other publications or know more about Extension programs, please contact me.

Sincerely,

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County Extension Agent