HOMEOWNER REPAIR GUIDE

RADIATOR REPAIR & MAINTENANCE

If you have a boiler (for a hot water or steam heating system), the heat will be distributed throughout your home via pipes and radiators. When they are all working properly, you probably don't give your radiators a second thought. But, when you hear noises, or when the radiators don't heat up evenly, you can sometimes do some simple maintenance to improve the functioning of your system.

First, you need to determine just what kind of heating system you have, steam or hot water. (If you have steam heat, you'll usually see a sight glass on the side of your boiler showing the water level.) Here are some common boiler system problems and how they are corrected:

HOT-WATER SYSTEMS

BLEEDING A RADIATOR

With a hot-water system, the valve at the base of the radiator (which controls the heat emitted) can get stuck, or air can get trapped in the radiator. To open the valve and bleed the air, you'll need a square-head key (if you don't have the original, check your local hardware or plumbing supply store for a replacement).

1. Put a bucket under the valve.
2. Turn the valve about a half-turn.
3. Drain it until there is no longer air mixed with the water coming out.
4. Turn the valve back until it is closed again.

STEAM SYSTEMS

RADIATORS THAT DON'T HEAT EVENLY

With steam heat, you can have a one-pipe system or a two-pipe system. If one of your radiators is not heating evenly, check whether the floor has settled beneath it. If your radiator no longer slants the correct way, add some shims beneath it to bring it back into alignment.

SYSTEM	CORRECT RADIATOR SLOPE
One-pipe steam	Angled slightly back, for proper drainage
Two-pipe steam	Angled slightly forward

CLOGGED OR DIRTY AIR VENTS

Another problem that can occur with steam heat radiators is clogged or dirty air vents. When the radiator is cold, it is filled with air. As the radiator heats, the incoming steam must push that air out through the air vents. Each air vent contains a kind of float, designed to close the valve when the radiator fills with steam, and open it again when the steam cools. When the vent is clogged, not only will it cause the radiator to not heat properly, but the other vents in

the system will have to work harder to compensate. If you hear a hissing noise while the system is heating, suspect clogged vents.

To clean your air vents, wait for a day when your heating system is off and cool to the touch.

1. Shut off the supply valve.
2. Use a wrench to remove the air vents, and see if you can blow air through them.
3. If they are clogged with debris, boil them for 25 minutes in a 50-50 mixture of vinegar and water.
4. If that doesn't work, replace them. (Be sure to use the same brand on each radiator, as different vents have different designs and venting rates.)

AN UNBALANCED SYSTEM

If some of your radiators don't produce enough heat while others are producing too much, you may have an unbalanced system. Adjusting a one-pipe steam heat system can be tricky, but sometimes you can use vents with adjustable air-release holes and/or double vents to vent big radiators quickly and smaller ones more slowly, or adjust the pressure to the system.

FURTHER READING

- "How to Take Care of Your Radiators," *Old House Journal* — www.oldhouseonline.com/repairs-and-how-to/radiator-handbook/
- "Care & Feeding of Air Vents for Steam Heat" — see separate HRRC handout

Home Repair Resource center

Home Repair Resource Center empowers homeowners to maintain their homes for sustainable and diverse communities.

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