

# ***HOW TO OPERATE YOUR HOME***

**Professional Edition**

**Tom Feiza  
Mr. Fix-It**

**Third Edition**

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## Be Safe

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The information in this book has been carefully assembled to ensure that it is as accurate as possible. However, the book provides general information only, and it is sold with the understanding that the publisher and author are not rendering legal or professional services.

This book does not provide product-specific information, and you should consult the manufacturer of the product or equipment for specific information. Operation and maintenance information is provided for general understanding only. Consult the Reference section to learn how to contact manufacturers, or consult with local contractors and professionals.

When attempting a home repair project, always consult professionals and follow label directions. Companies that manufacture equipment and home repair products are the ultimate authorities. Follow their instructions.

Many home repair, operation, and maintenance projects involve a certain degree of risk and should be approached with care. You should only attempt repairs if you have read and understood the instructions for the product, equipment, or tool that you are using. If questions or problems arise, consult a professional or the manufacturer.

Due to the variability of local conditions, construction materials, and personal skills, neither the author nor the publisher assumes responsibility for any injuries suffered or for damages or other losses that may result from the information presented.





# Dedication

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## **Who made me Mr. Fix-It?**

I owe a lot to Uncle Nick and Uncle Joe in Virgil, Illinois, who put me on the road to being a real fix-it guy. I worked at their dairy farms, racetrack and motorcycle shop and on their many construction projects.

I was nine years old when Uncle Nick began paying me 50 cents a day to work on his farm. When I graduated from Marquette University's engineering school, I was still working for and learning from Nick and Joe and their crews.

They taught me that you "learn by doing" and that the real education takes place working in the trade. From Uncle Nick and Uncle Joe, I learned the value of hard and honest effort.

My mom was also a great fix-it lady who taught me a lot about painting and refinishing.

## **What is my house like?**

Ask Gayle, my wife and best friend. She will tell you we have a lot of fix-it projects waiting for me. Just like every other couple, we operate with a "honey-do" list—you know, "Honey, you need to do this." And when the list gets too long, we talk about hiring a contractor. Our home is just like every other home.

## **So, this book is dedicated to:**

My wife, Gayle, and my kids, Lindsay and Tom III, for putting up with all my fix-it projects and my basement full of stuff; and to my mom, Uncle Nick, and Uncle Joe.

**Tom Feiza** – "Mr. Fix-It"





# Acknowledgements

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Special thanks go to all the people who listen to my radio show, watch my television appearances, attend my seminars, use my home inspection service, and read my newspaper column. Your questions, answers, and tips made this book possible.

Many manufacturers have provided me with excellent technical information, and I value their help.

My editor, Leah Carson, took my rough copy and made the information much more useful and user-friendly. Lynn Eckstein designed my Mr. Fix-It logo years ago, and she is responsible for the original cover design. Tom Feiza III created the cover revisions and the wonderful interior layout.

Graphic artist (now architect) Justin Racinowski took my rough drawings and produced the easy-to-understand computer-generated drawings for the first edition. Lindsay Mefford (Feiza) created the artwork for this revised edition from our originals and my rough sketches.

Most importantly, I owe a lot to my wife, Gayle, and our kids, Lindsay and Tom. They helped me keep things in proper perspective by dragging me out of the office for vacations and family time.

Please enjoy my book and have a great fix-It day!

**Tom Feiza** – “Mr. Fix-It”

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## About the Author

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Tom Feiza, Mr. Fix-It, is a “recovering” mechanical engineer and a real life fix-it guy. He personally tests home-related products and evaluates home construction problems.

Tom worked on a dairy farm through grade school, high school and college. After graduating from Marquette University as a mechanical engineer, Tom became licensed as a professional engineer and later as a home inspector. After college, Tom worked for over 20 years in the construction, maintenance and operation of large facilities. He shifted from engineering to become Mr. Fix-It, helping people with their home operation, maintenance and repair problems.

Tom now combines his hobby, his passion and his profession into his unique enterprise—Tom Feiza, Mr. Fix-It, Inc.

Tom hosts a live radio call-in show on AM 620 WTMJ in Milwaukee, Wisconsin. He writes books and magazine articles, and he helps provide useful illustrations. Watch for his information all over the Internet.

Tom presents unique and entertaining how-to seminars at home shows, association meetings, and retail events. He also gives entertaining keynotes at dinner meetings and professional conventions.

In another venture that helps him stay in touch with homes, people, and their related problems, Tom provides home inspection services and engineering investigations and evaluations for residential construction.





# Contents – Quick Reference

---

<b>1 – Start It Up and Take That First Spin</b>	<b>.23</b>
<b>2 – Environmental and Safety Concerns</b>	<b>.29</b>
<b>3 – Utility Systems – Heating and Air Conditioning</b>	<b>.35</b>
<b>4 – Utility Systems – Electrical</b>	<b>.61</b>
<b>5 – Utility Systems – Plumbing, Water Supply</b>	<b>.71</b>
<b>6 – General Home Systems</b>	<b>.101</b>
<b>7 – Fun Yet Serious Systems</b>	<b>.131</b>
<b>8 – Service Requirements by the Calendar</b>	<b>.141</b>
<b>9 – Emergencies &amp; Simple Solutions</b>	<b>.151</b>
<b>10 – Common Problems &amp; Simple Solutions</b>	<b>.163</b>
<b>11 – Plumbing Mysteries &amp; Secret Solutions</b>	<b>.169</b>
<b>12 – Electric Mysteries &amp; Secret Solutions</b>	<b>.177</b>
<b>13 – Heating, Air Conditioning &amp; Ventilation</b>	<b>.181</b>
<b>14 – Water, Ice and Steam Everywhere</b>	<b>.185</b>
<b>15 – Mysterious Sounds &amp; Simple Solutions</b>	<b>.191</b>
<b>16 – Smelly Mysteries &amp; Simple Solutions</b>	<b>.195</b>
<b>17 – When To Call a Professional</b>	<b>.201</b>
<b>18 – Vacations: Closing Your Home</b>	<b>.205</b>
<b>19 – Little Problems That Become Big Problems</b>	<b>.207</b>
<b>20 – My Top Energy-Saving and Comfort Tips</b>	<b>.217</b>
<b>21 – Recommended Books and Magazines</b>	<b>.227</b>
<b>22 – References</b>	<b>.229</b>
<b>23 – Service Checklists</b>	<b>.247</b>
<b>24 – In Case of Emergency: Things Everyone in the Household Should Know</b>	<b>.263</b>
<b>Index</b>	<b>.275</b>





# Contents

<b>Introduction</b> .....	<b>19</b>
<b>Can You Use This Book? Let's See...</b> .....	<b>21</b>
Having a Flood? .....	21
What Is a GFCI? .....	21
Going on Vacation? .....	21
Stink at the Sink? .....	22
Safety at the Fireplace? .....	22
What Is My Spring "Honey Do" List? .....	22
<b>Chapter 1 – Start It Up and Take That First Spin</b> .....	<b>23</b>
Walk Through Before Closing .....	23
Utility Services .....	23
Garbage, Recycling .....	23
Insurance .....	24
Post Office / Phone Numbers .....	24
Keys and Locks .....	24
Welcome Wagon / Local Government and Service Groups .....	24
Safety and Security—Your First Priority .....	24
<b>Chapter 2 – Environmental and Safety Concerns</b> .....	<b>29</b>
Lead .....	29
Asbestos .....	30
Radon .....	30
Carbon Monoxide .....	31
Mold and Mildew .....	32
<b>Chapter 3 – Utility Systems – Heating and Air Conditioning</b> .....	<b>35</b>
Utility and General System Notes .....	35
Heating and Air Conditioning .....	35
Thermostat .....	36
Warm Air Furnace .....	37
Air Filters .....	42
Hydronic (Hot Water) Heat .....	46
Steam Heating .....	47
Oil Burner .....	48
Central Air Conditioning .....	49
Central Air Cooling – Evaporative Cooler .....	52
Heat Pumps .....	53
Heating and Cooling Distribution: Ducts and Dampers .....	54
<b>Chapter 4 – Utility Systems – Electrical</b> .....	<b>61</b>
Utility Systems—Electrical .....	61
Main Panel .....	62
Wiring and Flow of Electricity .....	64
Outlets, Cords, 110 vs. 220/240 .....	65
Service Disconnects .....	65

## How To Operate Your Home

---

Electrical Polarity . . . . .	66
Electrical Grounding . . . . .	67
Ground Fault Circuit Interrupters . . . . .	68
Arc Fault Circuit Interrupters (AFCI) . . . . .	69

### **Chapter 5 – Utility Systems – Plumbing, Water Supply . . . . .71**

Water Service—Municipal . . . . .	71
Water Service—Your Own Well . . . . .	72
Water Heaters . . . . .	77
Piping and Valves . . . . .	80
Water Softener . . . . .	84
Garbage Disposal . . . . .	87
Hose Bibs (Exterior Hose Faucets) . . . . .	88
Water Hammer Arresters . . . . .	89
Drainage, Waste and Vent System . . . . .	90
Sewer and Septic Systems . . . . .	93
Irrigation Systems . . . . .	97
Natural Gas and Propane . . . . .	98
Heating Oil . . . . .	100

### **Chapter 6 – General Home Systems . . . . .101**

Foundation Basics . . . . .	101
Protecting Your Basement Foundation . . . . .	103
Termite Protection . . . . .	107
Structure, Frame and Siding . . . . .	108
Stucco – Cement . . . . .	111
Windows and Doors . . . . .	113
Insulation and Ventilation . . . . .	118
Roofs and Gutters . . . . .	122
Chimney, Flue and Vent . . . . .	126
Orphaned Water Heater in Masonry Chimney . . . . .	130
Seismic Movement . . . . .	130

### **Chapter 7 – Fun Yet Serious Systems . . . . .131**

Fireplaces and Wood Stoves . . . . .	131
Basic Fireplace Types . . . . .	131
How to Build a Real Wood Fire . . . . .	134
Fireplace Draft Problems . . . . .	134
Fireplace Cleaning . . . . .	136
“Rain” in the Fireplace . . . . .	136
Wood Stoves . . . . .	136
Whirlpool Bath . . . . .	137
Hot Tub/Spa . . . . .	138
Swimming Pools . . . . .	139
Pool Safety . . . . .	140
Waterfront Property and Seawalls . . . . .	140

### **Chapter 8 – Service Requirements by the Calendar . . . . .141**

Service Requirements by the Calendar . . . . .	141
Daily and Weekly . . . . .	141
Monthly . . . . .	142

## Contents

---

Spring	143
Summer	145
Fall	146
Winter	148
Periodic Maintenance and Service as Needed	149
Door Maintenance Tips	150

### **Chapter 9 – Emergencies & Simple Solutions . . . . .151**

No Heat	151
No Air Conditioning	153
No Electricity	154
No Water / Frozen Pipes	156
No Hot Water	157
Leaking Water Heater	157
Gas Odors	158
Oil Leak	159
Water Leak Anywhere	160
Leaking Toilet	161
Leaking Hose Bib (Exterior Faucet)	161
Dishwasher Flood	162
Refrigerator Leak	162
Leak at Washing Machine	162

### **Chapter 10 – Common Problems & Simple Solutions . . . . .163**

Wobbling Ceiling Fan	163
Doorbell Problems	163
Removing Broken Light Bulbs	164
Patio Screen Door Sticks and Rubs	165
Bathroom Paint and Mildew Problems	165
Proper Venting of a Fireplace	165
Gutter Leak—a Quick Patch	166
Black Stuff Growing on the Roof	166
Peeling Varnish on Front Door	167
Opening the Garage Door During a Power Outage	167
Clean and Polish Brass Hardware	168

### **Chapter 11 – Plumbing Mysteries & Secret Solutions . . . . .169**

Garbage Disposal Out to Lunch	169
Frozen Pipes at the Kitchen Sink	169
Frozen Sump Pump Lines	170
Thumping from the Sump Pump	171
If Your Sump Pump Never Runs...	171
Leaking Air Gap (“Chrome Mushroom”) on the Sink	172
Toilet Running at Night	172
Toilet with Poor Flush	173
Banging Pipes (Water Hammer)	173
Two Sump Pumps?	174
“Slippery” Water	175
Dripping Water Heater	175
Dripping Valves—Interior	175
Dripping Garden Hoses	176

## How To Operate Your Home

---

<b>Chapter 12 – Electric Mysteries &amp; Secret Solutions</b> .....	<b>177</b>
Dishwasher Will Not Run .....	177
Fuses or Breakers: Which Is Better? .....	177
Problems with Fluorescent Lights .....	178
Humming Ceiling Fan .....	178
Dryer or Range Plug Will Not Fit .....	179
Electrical Outlets Not Working .....	179
Bath Outlets Not Working .....	180
<b>Chapter 13 – Heating, Air Conditioning &amp; Ventilation</b> .....	<b>181</b>
Attic Fan .....	181
Cool Air from the Furnace .....	181
One Cold Room .....	182
Close Storm Windows with Air Conditioning .....	182
Clean the Heating Ducts .....	183
Dehumidifier Freeze-Up .....	183
Leaks at the Air Conditioner .....	183
<b>Chapter 14 – Water, Ice and Steam Everywhere</b> .....	<b>185</b>
Snow and Water in the Attic .....	185
Ice Blocking the Gutters .....	185
Moisture on the Windows .....	185
Reducing Severe Dampness Throughout the House .....	186
Excessive Winter Dryness Indoors .....	187
Water in the Basement .....	188
Moisture in the Attic .....	189
<b>Chapter 15 – Mysterious Sounds &amp; Simple Solutions</b> .....	<b>191</b>
Strange Sounds Throughout the House .....	191
Water Heater Popping and Pounding .....	192
Banging / Clicking Heat Ducts .....	192
Floor Squeaks .....	193
Fluorescent Light That Hums .....	194
<b>Chapter 16 – Smelly Mysteries &amp; Simple Solutions</b> .....	<b>195</b>
Sewer Smell in Home .....	195
Sewer Smell from Toilet .....	196
Water Supply Smells Like Rotten Eggs .....	196
Smoke Smells from the Fireplace—Without a Fire .....	197
Removing Smoke Smells from Home or Car .....	198
Burning Odor from Light Fixture .....	199
Stinky Garbage Disposal .....	199
Smelly Sink .....	200
<b>Chapter 17 – When To Call a Professional</b> .....	<b>201</b>
When To Call a Professional .....	201
<b>Chapter 18 – Vacations: Closing Your Home</b> .....	<b>205</b>
Short Trips .....	205
Shutting Down for a Whole Winter .....	206



## Contents

<b>Chapter 19 – Little Problems That Become Big Problems</b> .....	<b>207</b>
Floor Stains Around the Toilet .....	207
Rusted Metal Lintels (Beams) at Windows .....	207
Garage Door—Paint It to Save It .....	208
Drainage Problems .....	209
Grading Soil and Hard Surfaces .....	210
Sagging Patio or Sidewalk .....	210
How Important Is Furnace Servicing? .....	212
Deteriorating Ceramic Tile at Tub or Shower .....	212
Cleaning Fireplace and Flue .....	213
Inspecting a Masonry Chimney .....	213
Spalling (Flaking) Chimney Brick .....	215
Sump Pump Maintenance .....	215
Leaks at the Air Conditioner .....	216
<b>Chapter 20 – My Top Energy-Saving and Comfort Tips</b> .....	<b>217</b>
General Philosophy .....	217
1. Insulate the Attic Trap Door .....	217
2. Water Heater Temperature .....	217
3. Thermostat Settings .....	218
4. Band Joist (Sill Plate) Insulation .....	219
5. Weatherstripping and Caulking .....	219
6. Temporary Caulking and Storms .....	220
7. Showerheads .....	221
8. Lighting Controls .....	221
9. Stop All Water Leaks .....	221
10. Switch to Fluorescent Lamps .....	221
11. Maintain Heating and Cooling Equipment—Yourself .....	222
12. Maintain Heating and Cooling Equipment—Professionals .....	222
13. Seal Heating and Cooling Ducts .....	223
14. Seal Openings Into the Attic .....	223
15. Fireplaces: Warm and Romantic, But... ..	224
Energy: A Quick Summary .....	225
Check Out These Insulation and Air Sealing Tips .....	225
<b>Chapter 21 – Recommended Books and Magazines</b> .....	<b>227</b>
For Most Homeowners .....	227
For Restoration .....	227
For Experts .....	227
<b>Chapter 22 – References</b> .....	<b>229</b>
Quick Index to References .....	229
<b>Chapter 23 – Service Checklists</b> .....	<b>247</b>
Warm Air Furnace – Homeowner Service Checklist .....	248
Warm Air Furnace – Professional Service Checklist .....	249
Hydronic Heating – Homeowner Service Checklist .....	250
Hydronic Heating – Professional Service Checklist .....	251
Oil Heating – Homeowner Service Checklist .....	252
Oil Heating – Professional Service Checklist .....	253
Steam Heating – Homeowner Service Checklist .....	254
Steam Heating – Professional Service Checklist .....	255

## How To Operate Your Home

---

Central Air Conditioning – Homeowner Service Checklist . . . . .	256
Central Air Conditioning – Professional Service Checklist . . . . .	257
Heat Pump – Homeowner Service Checklist . . . . .	258
Heat Pump – Professional Service Checklist . . . . .	259
Evaporative Cooler – Homeowner Service Checklist . . . . .	260
Evaporative Cooler – Professional Service Checklist . . . . .	261

## **Chapter 24 – In Case of Emergency: Things Everyone in the Household Should Know . .263**

In Case of Emergency: Things Everyone in the Household Should Know . . . . .	263
--	-----

## **Index . . . . .275**

Notes . . . . .	289
-----------------	-----

## **Additional Information . . . . .301**

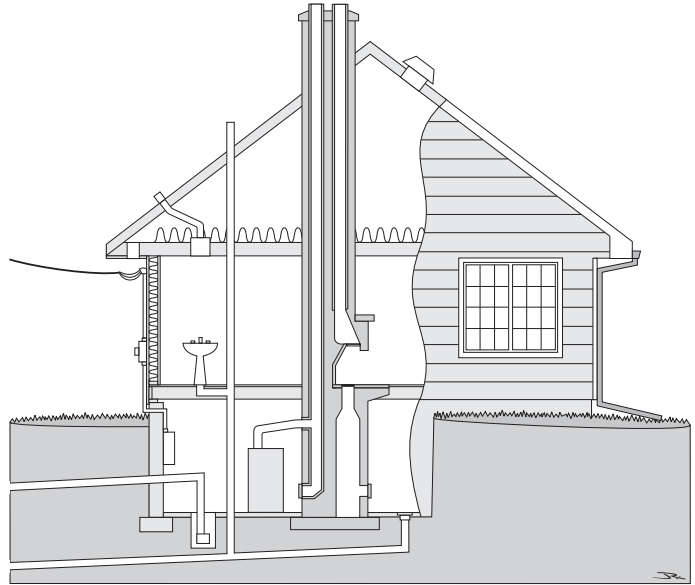
Free Articles . . . . .	301
Searchable Database . . . . .	301
Home-Related Industry Tools . . . . .	301
Ordering Information . . . . .	303
Order Form . . . . .	304



# Introduction

So you have a new home—and no idea what to do next. It's like bringing your first baby home from the hospital. Throughout the pregnancy, everyone was helpful and encouraging. You read all the books and went to all the classes. But now you are home alone with the baby. What do you do next?

Sure, you have that home improvement “Honey Do” list for the painting and decorating tasks that will make the house your home. But what about the furnace, the roof, the garage door opener, the hose bibs, the everything? A home is the most complicated thing you have ever bought. It has more than 5,000 parts and components. Now you own it, and you need to run it.



So where is that operating manual? You didn't get one?! You got one with the new car—and driving a car isn't complicated. For a new home, you're lucky if you get instruction manuals for major systems. For a used home, don't plan on receiving any instructions.

Everyone who owns a home has faced all the same questions and concerns. We never had an operating manual. Most of us just muddled through and eventually got things right. We learned through trial and error and corrected our mistakes. Lucky buyers had a dad, mom or Uncle Nick who was a great resource and would explain what to do and how things work. This book fills the void. It's an operating manual for your new or older home. It won't replace Uncle Nick—but it will come close. The book shares my 35 years of experience around homes, fixing or breaking the complicated stuff that fills them up.

You see, I am a mechanical engineering graduate of Marquette University and a registered professional engineer. I have over 25 years of experience working as an engineer on the maintenance and construction of buildings and equipment. Big deal! Actually, I know stuff about houses because I'm a hands-on guy. My Uncle Nick took me under his wing when I was 9 years old. He was a great teacher with the patience of a saint. Since Uncle Nick, I've regarded homes as a great learning experience.

I have not included all the answers. That is impossible. But all the basic information is here. There are even clues to the mysterious sounds and smells in your home. This book also provides great references in case you need to do a little research on your own.

Enjoy your home. It is the biggest and best investment you have ever made. This book will certainly make your home a little easier to understand, operate and enjoy. Congratulations on your purchase!

**Tom Feiza**

**“Mr. Fix-It”**





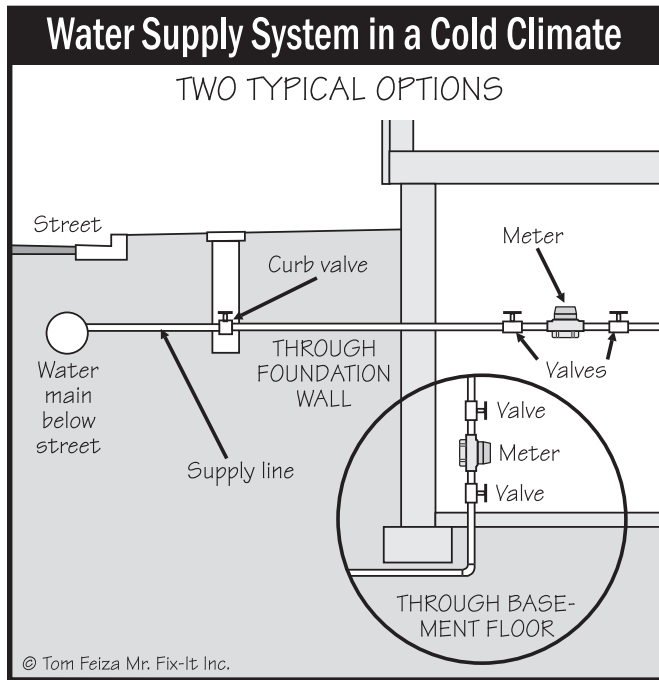
# Can You Use This Book? Let's See...

Does everyone in your home know how to turn off the water when it's pouring out from under the dishwasher? What are those funny buttons on the bathroom electrical outlet? How do you close up your home before vacation? Why does the sink stink?

This book will answer all your questions about how to operate your home. Really.

## Having a Flood?

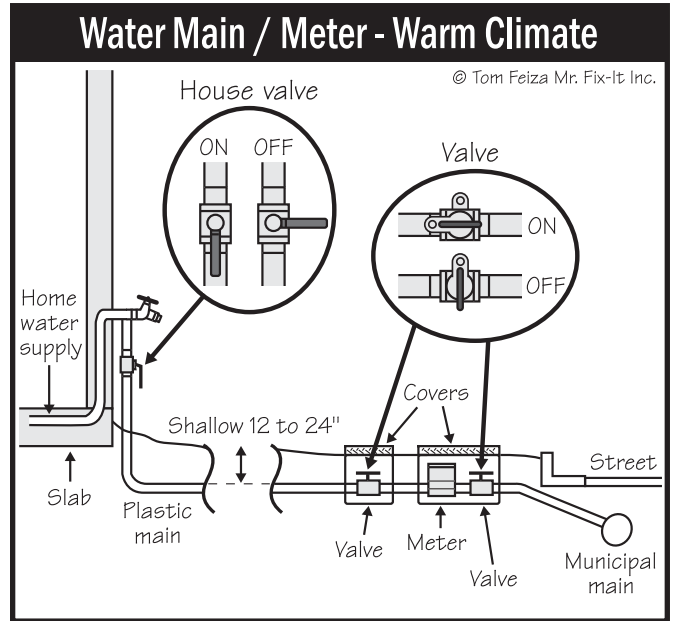
How do you turn off the water to your home? Everyone should know. Take a look at Chapter 5 and the tags in Chapter 24. You could save your family from a plumbing disaster by duplicating the "water main valve" tag in Chapter 24 and hanging it on the water main right now.



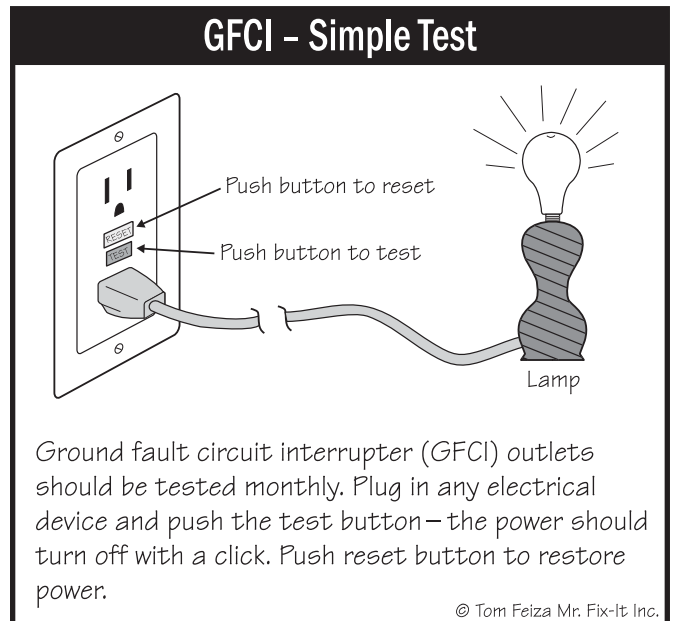
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## What Is a GFCI?

A ground fault circuit interrupter is that electrical outlet with the little buttons. It prevents you from getting a shock. Do you know how this works? Did you know you should be testing it? How do you test it? See Chapter 4 for a complete explanation.



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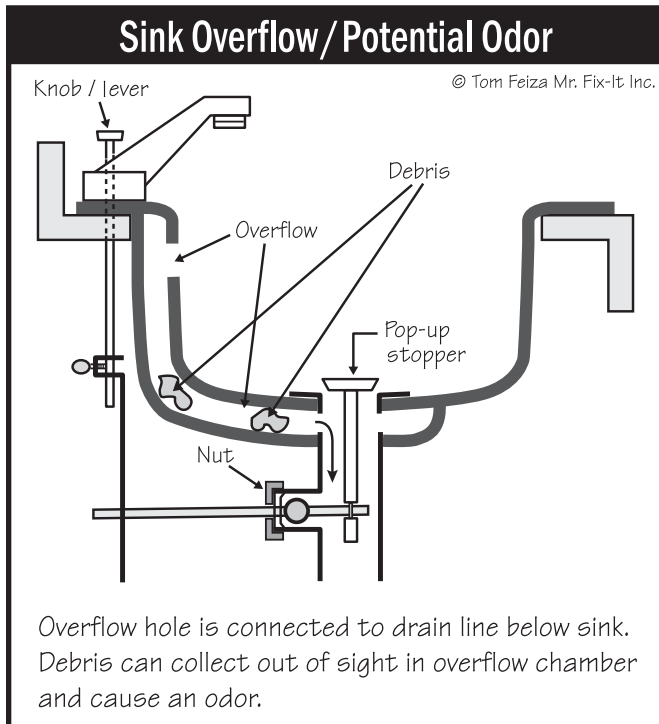
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## Going on Vacation?

See Chapter 18 for steps you can take to protect your home while you are gone.

### Stink at the Sink?

And yes, we have Chapter 16, which addresses mysterious smells in your home. A garbage disposal can need cleaning, a trap could go dry, and there may be debris in the overflow of the bathroom sink. Odor problems can always be solved if you know where to look.



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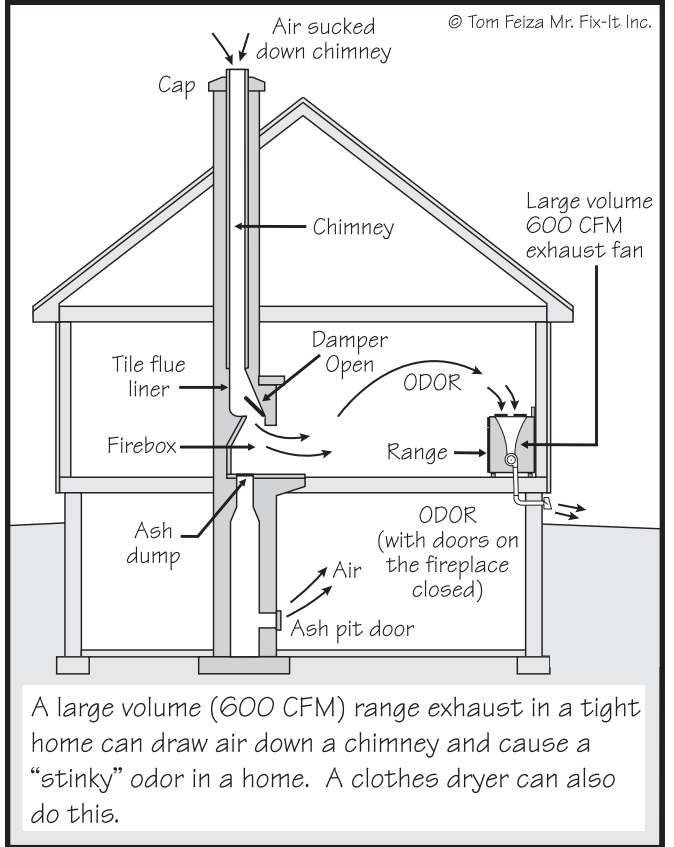
### Safety at the Fireplace?

Building your first wood fire in the fireplace can be intimidating. What if smoke fills your home? What if your home smells like smoke after the fire is out? When you run the kitchen fan or clothes dryer in the winter, does your idle fireplace produce an odor? Find complete information in Chapter 7 – Fun Yet Serious Systems.

### What Is My Spring “Honey Do” List?

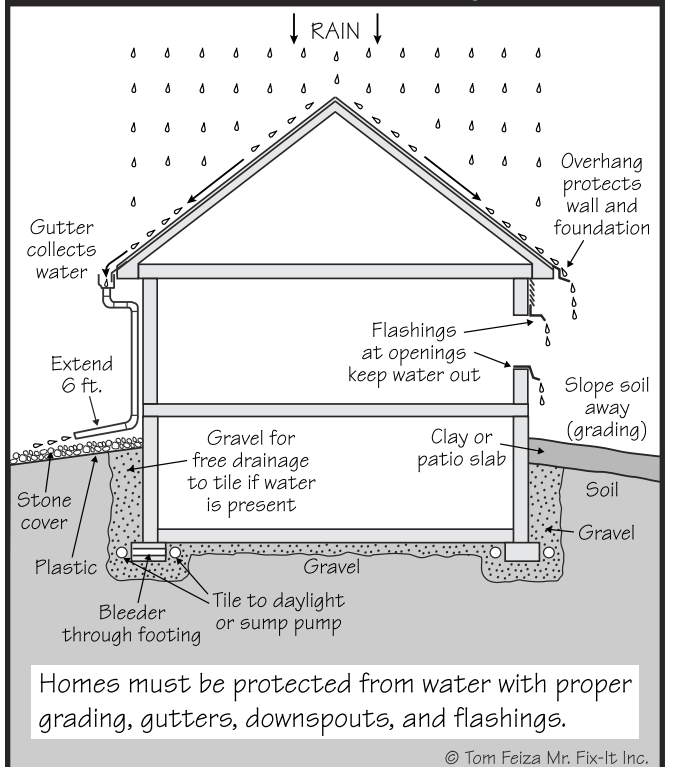
Homes work automatically – they need no maintenance. Right? While maintenance for a typical home has been reduced over the years, your home still needs maintenance. See Chapter 8 – Service Requirements by the Calendar for a complete list of seasonal maintenance needs for every home.

### Backdrafting Fireplace, Kitchen Fan = ODOR



VO31

### Water Protection Principles



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