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.
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

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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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.
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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.

Water Main / Meter - Warm Climate

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.

What Is a GFCI?

Ground fault circuit interrupter (GFCI) outlets should be tested monthly. Plug in any electrical device and push the test button—the power should turn off with a click. Push reset button to restore power.

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.

Overflow hole is connected to drain line below sink. Debris can collect out of sight in overflow chamber and cause an odor.

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.