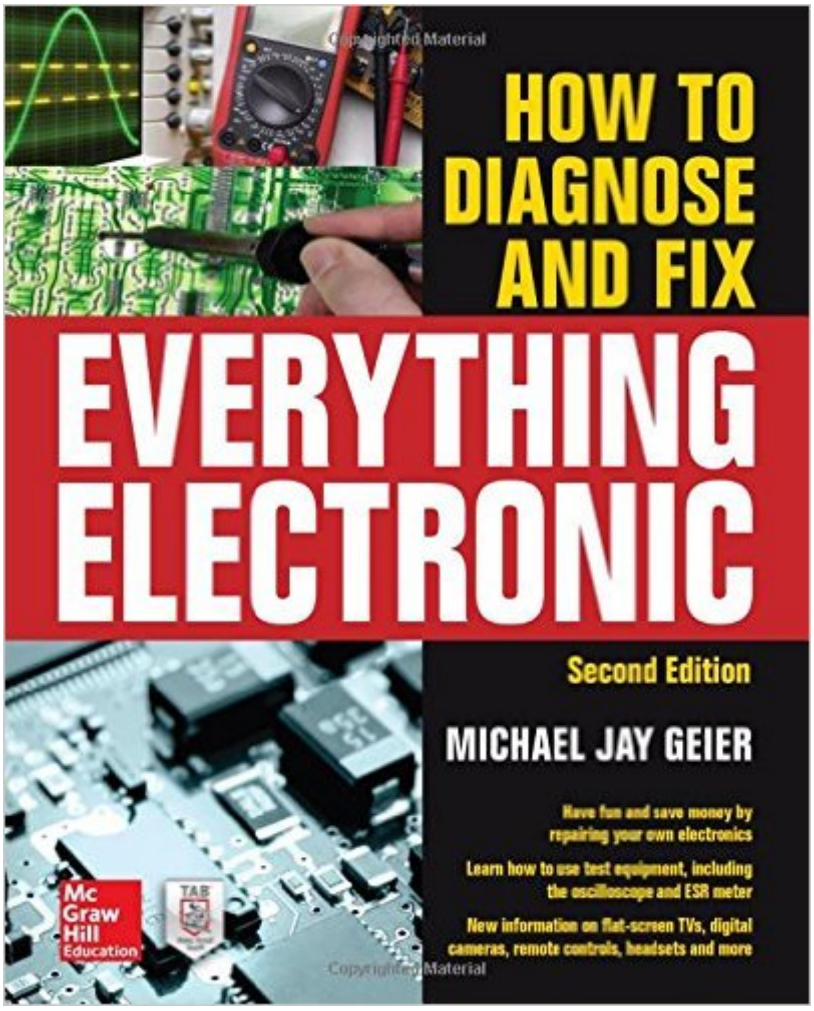
How To Diagnose And Fix Everything Electronic, Second Edition



Synopsis

A Fully Revised Guide to Electronics Troubleshooting and Repair Repair all kinds of electrical products, from modern digital gadgets to analog antiques, with help from this updated book. How to Diagnose and Fix Everything Electronic, Second Edition, offers expert insights, case studies, and step-by-step instruction from a lifelong electronics guru. Discover how to assemble your workbench, use the latest test equipment, zero in on and replace dead components, and handle reassembly. Instructions for specific devices, including stereos, MP3 players, digital cameras, flat-panel TVs, laptops, headsets, and mobile devices are also included in this do-it-yourself guide. Choose the proper tools and set up your workbenchEnsure personal safety and use proper eye and ear protectionUnderstand how electrical components work and why they failPerform preliminary diagnoses based on symptomsUse test equipment, including digital multimeters, ESR meters, frequencycounters, and oscilloscopesInterpret block, schematic, and pictorial diagramsDisassemble products and identify sectionsAnalyze circuits, locate faults, and replace dead partsRe-establish connections and reassemble devicesÂ

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Customer Reviews

This is, hands down, the best book I have ever read on understanding electronics. I've had college and post-graduate courses that taught me how to analyze circuits and figure out what voltages, currents, resistances, etc. were at certain points. That was all well and good, but totally useless for anything that I wanted to do on my work bench.In reality, what I needed was a holistic approach that

narrated the circuit and the signals that are manipulated. I NEVER thought of circuits this way and the author was able to explain that the active elements are the players in the story and everything else is a supporting cast.I could read a schematic, but I couldn't understand why the components were there. I know that a capacitor doesn't pass DC, but now I see that when placed in the circuit, it acts as a DC filter to remove noise before passing a signal to the next stage.On top of all that, I realized that every circuit has a voltage that is used as a signal. Signal analysis, analog and digital, seemed like a very advanced topic that I only understood through major concepts (linearity, aliasing, etc). Now I realize that a battery and a light bulb has a signal just as a digital video camera does. One is just more complex.Bottom line, this is the book that I couldn't put down...and it is about some of the driest material you can find. It is written in a fun and enjoyable fashion. Every page had an "AH HA!" moment and I am much more confident in my electronics hobby and profession.I cannot recommend this book enough and I would pay triple just for the section where the author walks through a couple sample circuits, describes each component's function, and what would happen if that component failed.

PROSGood coverage of test equipmentGood anecdotes that demonstrate basic methodologyGood basic techniques for fixing common consumer electronicsCONSIt won't tell you how to diagnose and fix everything electronicI'm an engineer by training, and I tend to take words literally. So when I read the title of this book, then observed that rather than an encyclopedia volume 1, these 316 pages were the entire book, I was dubious, and doubly so when I read the back cover where it promises "Master the Art of Electronics Repair," and how to repair and extend the life of "all kinds" of solid-state devices. I have read electronics books for a few decades. When I noted the publisher, Tab, I said to myself, "uh-huh". Because if there are a few things I have learned about Tab Books in particular in my years of reading them, it is these:1. They tend to over-sell their books in the title and abstract for the book2. If the book features projects, the circuits are often not tested and sometimes can't work as presented3. Except for the cover, the production quality is often substandard compared to other publishersIf I was the author of the book, I would not be comfortable writing a book that promised to teach you how to fix everything electronic and to make you a master in 316 pages, because it CAN'T BE DONE.I wondered when I saw a picture on the cover of a computer hard drive with a magnification of the electronics, because when a hard drive fails, I think it's best to do your best to recover data from it, then you move to a new one that is less likely to fail again. But the author does have a technique he says may be able to save a failing drive. Hey, if it works, I'd still use it as a rescue for data from the failed drive... then I'd wipe it and throw it away.But I'm NOT

here to tell you the book is worthless, or that the author does not know what he is talking about. Neither is true.The author clearly knows what he is talking about and speaks from experience. He does tell you about the essential tools of the trade - and other tools which you have heard of but may not be necessary except for specialized jobs. He goes into some detail on using them. I came to this book to learn more about oscilloscopes, and he does a reasonable job with them - 28 pages, almost 10% of the book!Around 50 pages in, he gets into some basic trouble-shooting techniques, followed by diving into a couple of case studies that expose the reader to the process he follows, which is very much like a detective's work. There are no short-cuts: you have to understand the circuit so that you can trace it for clues, and from the clues you have to be able to think to figure it out. It's challenging work.Obviously, it is useful to have a background in electronics. If you don't have that, he has a couple of chapters on components and circuits. It's brief; fortunately, there are lots of books dedicated to these subjects to learn a lot more, especially on subjects that apply to the kind of equipment you want to fix.Chapter 14, at just over 50 pages, is tips and tricks for fixing specific products and technologies: switching power supplies (used in many products, and frequently a source of failure), audio amps and receivers, disc players and recorders, flat panel displays, hard drives, laptop computers, mp3 players, vcrs and camcorders, and video projectors. The problem is, that's just a few pages for each topic, and you could devote an entire book to each topic and not cover everything. This should be the meat of the book, but it's like the author ran out of time when he got here.The topics in Chapter 14 should have been at least a 50 page chapter each to earn the book's ambitious title. Better still would be to omit Chapter 14 from this volume, then use this volume as the introduction to a series, and write a separate book on each of the topics of Chapter 14 and beyond. Do that, Tab, and I'll consider buying the set.This book would have come closer to succeeding just by having a title like "using test equipment to diagnose common problems in consumer electronics," which is closer to what it covers: there are about as many pages discussing test equipment as there are on general diagnosis techniques and tips and techniques that apply to specific types of equipment. The author probably had a different title in mind, but Tab had an outdated book they wanted to update that had a similar title, so maybe they talked the author into a more ambitious title so it would sell better. Or at least, that's my theory.BOTTOM LINEThree stars ("It's OK") is not a bad review, but there is room for improvement. There are definitely parts that are useful to me. As it is, it will not tell you everything you know to fix everything electronic, or even close, but it may start you down that path. It is a good beginner's book.

This book is extremely well written, easy to follow and makes sense. The author actually "takes you

by the hand" and leads you through simple test procedures, step by step and explains why things are being done.If you are a beginner to electronics or even past the beginner stage and want to go beyond just opening up something that doesn't work, looking for loose connections and burned components, this will be just what the doctor ordered.The writing is top notch and done in such a manner that it's truly enjoyable.It's been a long time since I've picked up a book written to actually be read and used.A big thanks to Michael Geier for getting me back into troubleshooting and setting up a small repair area.

How to Diagnose and Fix Everything Electronic, Second Edition How to Start a Electronic Record Label: Never Revealed Secrets of Starting a Electronic Record Label (Electronic Record Label Business Guide): How to ... a Eletr Record Label: Never Revealed Secret Credit Repair Ninja (A 5 Minute Guide) - 21 Ways To Fix Your Credit Score Lightning Fast - 2016: How To Fix Your Bad Credit Score In 30 Days Or Less Credit Repair Ninja (A 5 Minute Guide) - 21 Ways To Fix Your Credit Score Lightning Fast: How To Fix Your Bad Credit Score In 30 Days Or Less Electronic Document Preparation and Management for CSEC Study Guide: Covers latest CSEC Electronic Document Preparation and Management syllabus. EQing Electronic Music: Essential Tips For Producers (Making Electronic Music Book 2) New Fix-It-Yourself Manual: How to Repair, Clean, and Maintain Anything and Everything In and Around Your Home The Grand Plan to Fix Everything How to Fix Everything For Dummies Hermeticity of Electronic Packages, Second Edition Beyond Outrage: Expanded Edition: What has gone wrong with our economy and our democracy, and how to fix it Your Credit Score: How to Fix, Improve, and Protect the 3-Digit Number that Shapes Your Financial Future, 2nd Edition Skinnytaste Fast and Slow: Knockout Quick-Fix and Slow Cooker Recipes Fix-It and Forget-It Revised and Updated: 700 Great Slow Cooker Recipes The Fibro Fix: Get to the Root of Your Fibromyalgia and Start Reversing Your Chronic Pain and Fatigue in 21 Days Curing Medicare: A Doctor's View on How Our Health Care System Is Failing Older Americans and How We Can Fix It (The Culture and Politics of Health Care Work) QuickBooks Bookkeeping: The 10 Most Common Mistakes Everyone Makes and How to Fix Them for QuickBooks and QuickBooks Online Ruby Performance Optimization: Why Ruby is Slow, and How to Fix It Fix-It and Forget-It Big Cookbook: 1400 Best Slow Cooker Recipes! Sally's Baking Addiction: Irresistible Cookies, Cupcakes, and Desserts for Your Sweet-Tooth Fix