

# Re: Straight Forward Answers

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- *From:* "Bart" <bborb@fusedotnet>
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"John Popelish" <jpopelish@xxxxxxxx> wrote in message  
[news:m4Sdnbgih80zd0PenZ2dnUVZ\\_tydZ2d@xxxxxxxxxxxxxxxx](news:m4Sdnbgih80zd0PenZ2dnUVZ_tydZ2d@xxxxxxxxxxxxxxxx)

Dennis Walter wrote:

I am not necessarily new to the hobby, i build a lot of pre-made schematics and kits and such. Now i am looking for an electronics book that tells me exactly what a component does, without going into all of the math and extraneous material, i have enough books that do that. For example, i want a book that says what a resistor does, and why you would need that to be done, not necessarily how it does it, frankly i don't care at this stage of my hobbying. Does that make sense? Most books or tutorials i have read are not vague, but not written in the right context for what i want.

I am pretty much self taught in electronics (before I got frustrated with no one taking me seriously, and went back to school and got my degree), so I think I know what you are talking about. So many text books go straight for the descriptive equation, without taking a paragraph of 3 to try to get you to imagine generally what a component is for and how it acts, in a strictly conversational way. It is only after they wade into all the math that the discussion of all the limitations, approximations and exceptions where the equations do not apply, exactly, that you start to find out the real "personality" of the various parts.

I taught electronics in the Army in the late 60's and picked up classes full of people who had spent a half a year in practical training, and still didn't feel comfortable thinking about resistors, transistors and capacitors, even though they had passed many tests about them to get to that point. I had to swing back through the basics, and try to get their imaginations inside the parts, so they could look at a schematic and imagine what was going on in the circuit, in a general way, for troubleshooting purposes, as if they were a detective observing a room full of interacting people, looking for clues of someone who was acting out of character.

Unfortunately, I have not seen a text book that approaches things quite

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that way. They all get into at least simple algebra before a chapter has passed.

However, since this is the basics discussion group, there is no electronics question too basic to be discussed. Ask a question about a component and we will see if we can get inside your head and help you make progress.

Does anyone else approach it as simple hydraulics or plumbing? I'm somewhat teaching myself and I think in those terms, current being the flow of water and voltage being water pressure. A resistor is like a constrictive valve (bending a garden hose), a capacitor is like a water tower, a diode is like a butterfly valve, a transistor is like a faucet, etc. This type of thinking has its downfalls but has worked enough to keep me from giving up. I'll read the chapter on transistors in five different books and they all sound like rocket science. I'll finally be in the company of someone with a working knowledge of transistors and he can explain it in 10 minutes. Now why can't any of the expert authors do that? This group has been VERY helpful to me several times, members patient with my "dumb" questions and DO give straight answers. A best seller would be a collaborative book authored by sci.electronics.basics!

Bart

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