



# VACUUM TUBES

© 2015 by Tom Boynton  
(editing by Kathy Boynton)

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As a sixth grader, electronics fascinated me, and I convinced some classmates to join me in a science project to build a radio transceiver.

Back then most radios and TVs used vacuum tubes to amplify and condition signals. Many looked like small cylindrical light bulbs but they didn't produce light (just a little red glow). Later, vacuum tubes were replaced by transistors which were much smaller and served the same purpose.

In our town was a man who ran a radio and TV repair shop. Although my classmates and I knew little about building transceivers, we knew we needed vacuum tubes to amplify signals. So, one day I walked into his shop and said, "I want to buy a vacuum tube." He said, "What's the type number for the vacuum tube you need?" I was stumped. I hadn't realized vacuum tubes had type numbers. However, overlooking my ignorance, this TV repairman befriended me.

One day, in the back of his shop, he showed me some old, very large, high power vacuum tubes that were totally functional. My eyes lit up with excitement when he offered to

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One day, in the back of his shop, he showed me some old, very large, high power vacuum tubes that were totally functional. My eyes lit up with excitement when he offered to

give them to me! I really wanted them but felt I should pay him something. He said "They're a gift. You need not pay for them." But I persisted until he finally said, "Well, if you insist on paying me, they'll cost you five dollars." Back then five dollars was an incredible amount for an 11 year old boy to have. I didn't have it so I said, "I don't have five dollars." Smiling he replied, "Well then, I guess you'll just have to receive them as a gift!" I did, and I still have them!

Since then I've often thought about how this incident illustrates an important truth about God's gift of salvation. It's very expensive and must be received as a gift! God the Son, Jesus Christ, paid for it with His blood. It's too expensive for us to buy with money, good works, or anything else. Trying to insults God!

*"For by grace are ye saved through faith; and that not of yourselves: it is the gift of God: Not of works, lest any man should boast. For we are his workmanship, created in Christ Jesus unto good works, which God hath before ordained that we should walk in them" (Ephesians 2:8-10).*

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