

This is one is dear to my heart because it involves my Mom. She lives in another province about an 8-hour drive from me. At the time of this incident, she was living in a condo complex with hot water heat.

She called me to say that she was having a problem with her heating and wondered if I could help. My brother had been visiting and was fixing a few things for her, so she had asked him to replace her thermostat because she thought it was faulty. Now the problem was too much heat. In her exact words, 'The more I turn it down, the hotter it gets!'

This is a woman who lived through the Great Depression and WWII and raised 9 children, not all of whom were angels. She's not a complainer, so I knew it was a real problem. I also knew that she turned the thermostat down every night; old habits die hard.

Almost all hydronic heat zone valves are normally open, so the thermostat must be reverse-acting. If you don't want heat, the valve must be powered closed. I suspected that my brother hadn't known that and had installed a direct-acting thermostat. When she turned it down, it cut off power to the valve and it went open. But how to explain that to Mom?



My first thought was to tease her a bit and tell her that the new thermostat was installed upside down (I'm not one of the angels), but I resisted and said, 'Mom, I think you've got the wrong thermostat for your system. Turn it all the way up and see what happens.'

Her response was predictable. 'UP! You want me to turn it UP! It's already hotter than h-e-double hockey sticks in here!' When she's really upset she starts cursing. But I convinced her to do it, then go to one of the baseboard heaters and see if it was still pouring out hot air. She came back to the phone quite excited. 'You're right! It's off now. Well, that's just crazy!'

I gave her a model number for the correct thermostat, and one of my nephews (an electrician) who lived nearby picked one up, installed it and the problem was solved.

Mom's always been proud of all her children, but I'm not sure she's ever really understood what I did for a living. I don't know if this episode totally cleared that up for her, but she was impressed that I had diagnosed her problem from 800 kms away.

**Question** – *what's the main reason for using normally open zone valves? Answer in the next JB Tech Talk.*