

Electricity and water don't mix

Contributed by Administrator
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About four years ago, I got a call from my service dept that a customer of mine had a problem with the Thermospas hot tub that I had sold them. It seemed that their GFCI (Ground Fault Circuit Interrupter) kept tripping and they were getting a voltage reading in the water even after the GFCI tripped. Their electrician had gone out and he could not solve the problem but he insisted that it had nothing to do with his work of wiring the spa up.

Our service dept asked me if I had time to go out with the service rep and see if the two of us could figure out what the problem was because it was a potentially dangerous situation and it should not be possible to get a voltage reading in the hot tub's water after the GFCI trips. Scott, one of our top service reps, and I drove out to take a look at this Park Avenue spa. When we got to the home, we sure enough got a low voltage reading in the water of the Park Ave. His electrician had come out also to see if he could help and for a second the four of us, including the home owner, were scratching our heads.

I happened to notice a spot-light about fifty feet away from the tub attached to a shed and pointing towards his pool. I asked him why the spot light was on during the day and just then it went off. A few seconds later it came back on again. It looked like somebody was playing with the switch. I then asked the home owner and the electrician where was the power line running out of the house that was feeding power to the shed. The home owner piped up and said that it was running right under the patio and that he had wired it himself years ago before the patio was put down. Well it happens that the spa was placed on the patio right over the wire that was 18 inches below the ground. As it turned out there was a short in the wire leading to the shed. There was no problem with the wiring to the spa which made us and the electrician utter a sigh of relief.

I had asked the home owner during the site survey if there were any power lines or outlets within 5 feet of the site were we were going to place the tub because the national electrical code required that there be no electricity of any kind within 5 feet of the water in all directions and 7.5 feet above the water in the case of an over head power line. The home owner admitted that he had forgotten about the power line he had placed under ground years ago and he apologized to the electrician and to Scott and me for wasting our time. The electrician stuck around to fix this problem and he called me later to tell me he had charged the home owner to fix the problem and for wasting his time on two occasions. Not sure if the home owner paid him or not, but at least he was able to use his hot tub safely again. He later told me that his wife teases him all the time about his handy work, but she was really happy that she and the family could enjoy the use of their Park Avenue again. They have sent us more than one referral from friends of theirs that have used their hot tub and loved it.

So the moral of this little story is that when selecting a site for your hot tub, even if it's indoors, be sure that it is at least 5 feet away from any power source and 7.5 feet clear of power lines over-head.

John Marchion
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