# How to fix that gizmo you dropped in the loo



By Scott Dunn

It happens to everyone: one moment, you're talking on your cell or dialing up a tune on your MP3 player, and the next, you're staring down at your gadget in a toilet, a puddle, or worse.

If your portable electronic device gets dropped or submerged, is there anything you can do? Fortunately, the answer is yes.

## What to do before you call the shop

Whether you left your iPod in your pocket when you did your laundry, discovered that your dog thinks your Zune is a chew toy, spilled coffee on your Treo in your car's cupholder, or dropped your phone in the sink while shaving during your conference call, you've probably discovered the hard way that today's electronics are not invulnerable.

When disaster like this strikes, what should you do? I spoke with Aaron Vronko, co-founder of Rapid Repair, based in Kalamazoo, Mich. Rapid Repair specializes in iPod and iPhone repairs, but also handles repairs of Zunes and other small appliances. Vronko told me what you can do to rescue your portable electronic device.

### First, the obvious: water and electronics don't mix

If you merely dropped your handheld device on a hard, dry surface, your problem may not be too serious. In cases of dry damage, dust off your device and turn it on. If you can't make it work, you'll need to find a repair service. But you probably won't be out more than a nominal charge to see if it can be fixed.

A much bigger danger is secondary damage caused by exposure to water or other liquids.

"That's when the most damage happens," says Vronko. "People don't realize how much liquid can get inside or the harm it can do." What happens next can determine whether your device lives or dies.

If your handheld is exposed to liquids, try these steps.

**Step 1: Act quickly.** If your electronic device has been exposed to liquid, a wait-and-see approach may do more harm than good. The longer the electronics are exposed to moisture, the greater the chance of connections corroding, causing irreparable damage.

**Step 2: Don't turn it on.** "If you turn on a device exposed to water, you're attracting ions to the liquid and causing even more problems," says Vronko.

**Step 3: Clean with solvent.** Not all electronic devices can be easily disassembled, but do what you can to open yours up if it's a simple matter. Then carefully clean the parts with an electronics-safe solvent.

Good solvents to use for this purpose include contact cleaner from an electronics shop or a strong rubbing alcohol. Don't use the kind of mild alcohol that's sold in many drug stores; it contains too much water. Use a cleaner that's 80% or more alcohol.

Step 4: Dry and try. Once you've cleaned it, let your device dry out completely. Then reassemble it and try it out.

**Step 5: If necessary, seek repairs sooner rather than later.** If you don't succeed in reviving your handheld, try to get it to a repair service before internal water damage gets worse.

Vronko relates an unusual story in which his cell phone was on his lap during his drive home. When he got out of his car, the phone fell onto the driveway and that night was covered by 12 inches of snow. He didn't find the handheld until spring, two months later.

When he found the phone, he didn't have time to work on it, so he threw it into a freezer for another two months.

Once he found the time, Vronko cleaned out the phone with a solvent and made sure it was thoroughly dry. As a result, the phone worked just fine.

"Certain electronics don't like freezing temperatures," Vronko notes, so he doesn't recommend this approach for everything. "But, in this case, the cold kept the delicate parts from oxidizing."

# When is a repair job worth the money?

If your own remedial steps don't help, it's time to seek professional help. Some shops, like Vronko's Rapid Repair, charge little or nothing for estimates. Rapid Repair charges one cent for estimates (a quirk of the company's online billing system), plus \$10 U.S. for overnight shipping anywhere in the United States.

Vronko says a number of manufacturers will make repairs for free, especially if their product is the cause of the problem. "For example," says Vronko, "it's extremely common for car chargers to fry a product's mainboard if there is a power spike in the car's electrical system."

In that case, a reputable manufacturer of such a charger may replace your product for little or no money.

"For all your electronics, be extremely wary of hooking it to a car charger if you can avoid it," adds Vronko. "Or, if you do use a car charger, make sure the manufacturer stands by their accessory."

For repairs that aren't caused by user damage, 50% of the repairs Vronko sees require only a new LCD or battery. He adds that 85% of the repairs his company made last year cost the customer \$90 or less.

In deciding whether to opt for repairs or a replacement unit, Vronko recommends the 60% rule: If the repair cost is more than 60% of the current replacement value (what the device would cost to buy today), don't bother with a repair. For example, you may have spent \$300 on a device originally, but if a new model now costs \$200, don't spend more than \$120 getting the old one fixed.

Finally, if your product is beyond repair or not worth the cost, ask whether your repair service will recycle it for you. That way, at least reusable materials won't end up in a landfill.

As electronics get smaller, they also become easy to drop and damage. Knowing what to do in a mishap may save you the pain and expense of replacing or repairing your personal device.

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Scott Dunn is associate editor of the Windows Secrets Newsletter. He has been a contributing editor of PC World since 1992 and currently writes for the Here's How section of that magazine.