

Notes on Business Telephone Systems

This note explains the possible dangers of using a POTS codec on a business phone system and provides some tips on how you can avoid damaging your codec.

“DAA” stands for “Data Access Arrangement”, the tortured technical term for the interface module that goes between the telephone line jack and the modem. It protects the modem from the voltages and currents on the phone line, and assures compliance with all kinds of government regulations.

This DAA will handle just about anything that can happen on a regular phone line, but if it is connected to a business phone system, it may be damaged. Business phone systems may supply extra current to power lights and complicated circuitry inside the phone set. It’s the higher current that can hurt the DAA module.

Simple rule: Don’t use the jack for a phone that has a lot of lights and buttons! Try to use a line provided by the telephone company. If the business phone has an adapter specifically made for fax machines or modems, that’s probably OK.

In the confusion of setting up for a remote broadcast, it’s easy to plug into any phone line available and possibly damage your codec. Not sure about a phone jack? Buy a cheap phone and carry it with you to remotes. If you can get dial tone, place a call and talk with someone, the jack should work with your codec. If the phone blows up, it’s a lot cheaper than paying for a nuked DAA module.

Beware of small barrel-shaped phone line testers. Many of these are designed to sense phone line polarity only. While polarity doesn’t matter to our POTS codecs, the real problem is that these testers don’t provide any over-current indication, so they are pretty much useless in protecting your codec.

The folks at Comrex Tech Support know that life is unfair, and really wish that modular phone jacks had been reserved for “real” phone lines. But with a little caution, you can prevent the anguish (and the smell) of a fried POTS codec.