

## Re: 48 V AC to case of cable box

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Leo Marx wrote:

ineedcoffee wrote:

Voltage question for some electronics repairs techs...

After feeling electricity when connecting two cable wires via a coupler, I traced the source back to my Scientific Atlanta 8300HD cable box. This cable box has no ground prong. When all wires except the power are disconnected, my meters reads 48 V AC from the case to ground. For ground, used both my hot water base board and the neutral and ground from the receptical. The outlet polarity is not reversed.

When touch ground and the box with my hands, I can intermittently feel slight tingling, about the strength of a dying 9 V on the tongue.

I've also verified the cable wire is grounded. When it is connected to the box, the voltage on the case of course disappears. Obviously it cannot source much current, since this is effectively shorting a voltage source to ground.

The cable company has had two other boxes out, and both have the same symptoms.

Am I missing something here? This cannot be normal. For a two pronged appliance, I assume the case should be electrically isolated from both the hot and the neutral. Does this sound right?

Any ideas or info would be appreciated. Thanks.

DMT

Is it possible that the shield of the cable is not grounded where it enters your home?

JAM

Re: 48 V AC to case of cable box

This is quite normal for any equipment having a powersupply interference filter.

You might feel a slight trickle of current, but once you apply all cabling before you apply power, you will be oke.

Almost all computers, printers, etc have it.

There are two small capacitors from each of the main power wires, to the frame, to suppress radio interference.

That means you see about half the mains voltage at the case, but at a very high, safe impedance(although it tickles). Once you connect and ground things you wont feel a thing.

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