

S.E.R. FAQ **NotTaR of Television Sets** : [Specific considerations before poking ar..](#)

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Specific considerations before poking around inside a TV or monitor

Both electrical and mechanical dangers lurk:

- Main filter capacitor(s). This is the most dangerous (not the HV as you would expect). Fortunately, these capacitors will normally discharge in a few minutes or less especially if the unit is basically working as the load will normally discharge the capacitors nearly fully as power is turned off. With TVs, the main filter capacitor is nearly always on the mainboard. Monitors are more likely to have a separate power supply module.

However, you should check across this capacitor - usually only one and by far the largest in the set - with a voltmeter and discharge as suggested in the section: [Safe discharging of capacitors in TVs and video monitors](#) if it holds more than a few volts (or wait longer) before touching anything.

Some of these are as large as 1,000 uF charged to 160 V - about 13 w-s or a similar amount of energy as that stored in an electronic flash. This is enough to be potentially lethal under the wrong circumstances.

- High Voltage capacitor formed by the envelope of the CRT. It is connected to the flyback transformer by the fat (usually red) wire at the suction cup (well, it looks like one anyhow) attached to the CRT. This capacitor can hold a charge for quite a while - weeks in the case of an old tube type TV!

If you want to be doubly sure, discharge this also. However, unless you are going to be removing the HV connector/flyback, it should not bother you.

The energy stored is about 1 w-s but if you touch it or come near to an exposed terminal, due to the high voltage, you will likely be handed **ALL** the energy and you **WILL** feel it. The danger is probably more in the collateral damage when you jump ripping flesh and smashing your head against the ceiling.

Some people calibrate their jump based on voltage - about 1 inch/V. :-).

There will be some HV on the back of the circuit board on the neck of the CRT but although you might receive a tingle but accidentally

touching the focus or screen (G2) pins, it is not likely to be dangerous.

- CRT implosion risk. Don't hammer on it. However, it is more likely that you will break the neck off the tube since the neck is relatively weak. This will ruin your whole day and the TV or monitor but will likely not result in flying glass everywhere. Just, don't go out of your way to find out.
- Sharp sheet metal and so forth. This is not in itself dangerous but a reflex reaction can send your flesh into it with nasty consequences.

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