

## S.E.R. FAQ **NotTaR of Television Sets** : **Color balance adjustment**

[Home](#) [Copyright](#) © 1994-2007, Samuel M. Goldwasser. All Rights Reserved. Reproduction of this document in whole or in part is permitted if both of the following conditions are satisfied: 1. This notice is included in its entirety at the beginning. 2. There is no charge except to cover the costs of copying. I may be contacted via the Sci.Electronics.Repair FAQ (www.repairfaq.org) [Email Links Page](#).

[Download](#)[Feedback](#)

---

[<< Optimal procedure for set..](#) | [Index](#) | [More on 'Calibrating' TV .. >>](#)

## Color balance adjustment

Color balance needs adjustment if the highlights and/or shadows of a black and white picture (turn the color control all the way down) are not a perfectly neutral gray.

Note: Some TV designs (Zenith uses this in a few models) automatically balance CRT cathode drive by sensing emission from the red, green, and blue guns using a gray scale reference pulse outside the viewable picture. If this is the case with your set, there may be no user OR service adjustments :-(. A color balance problem in this case means either a failure of this circuitry or a CRT where the emission from the 3 cathodes is so unbalanced (usually due to one being much much weaker than the others) that compensation is not possible.

To adjust the color balance: Turn the color control all the way down so that you get what should be a B/W picture. Set the user brightness and contrast controls about mid-range. The tint control should not matter (if it does at this point, you have other chroma problems or an 'autocolor' switch is on limiting the range of some controls).

Adjust the sub-brightness controls (may be called color screen, background, or the like) so that the dark areas of the picture are just visible and neutral gray. Then, adjust the color gain controls until the brightest areas are neutral white but not so bright that there is 'color bleeding' in the highlights.

This should get you close. If something is still shifting after warmup and get some cold-spray or even a little blower and try to locate the component that is drifting. Most likely a transistor or capacitor.

---