

ITC222 Focus Instructions

Attention: Disassembling the set and accessing the service manual may compromise the operation of the set. I personally feel these are relatively low-risk operations, but I will not guarantee your success. All operations I describe should be considered to be **“at your own risk”**. Instructions on accessing the service menu and performing advanced convergence can be found in the service manual alignment chapter for the ATC222 downloadable from <http://home.austin.rr.com/doctorjoe>

- 1) Pull off the screen over the speakers. It “pops” right out.
- 2) Remove the panel with the power, channel +/-, volume +/- buttons. There are two screws (T-20 Torx heads; a standard Allen wrench will work in a pinch) on the back of the set and seven screws across the bottom. See Figure 1. This exposes the lens assembly’s.
- 3) Remove the hatch between the two speakers. There are four screws holding it on. See Figure 1. This exposes the electronic focus controls.



Figure 1: D56W20 with speaker screen removed. Remove the circled screws to release the two panels. Do not disconnect the cables to the power/channel/volume panel

- 4) Turn the set on and let it warm up for 15 minutes. Set contrast to maximum.

- 5) Boot into the service menu. *The service manual does not say what mode (480 or 1080) to be in. Presumably more resolution is better so I used 1080 mode.* (see service manual alignment chapter for details.)
- 6) Enter the convergence submenu and bring up the 13x15 red/green convergence grid (see service manual alignment chapter for details).
- 7) Figure 2 shows the recess with the lens assemblies which is exposed when you remove the power/channel/volume panel. Use a soft cloth to dust off the lenses. Cover the red CRT with a cloth/towel.

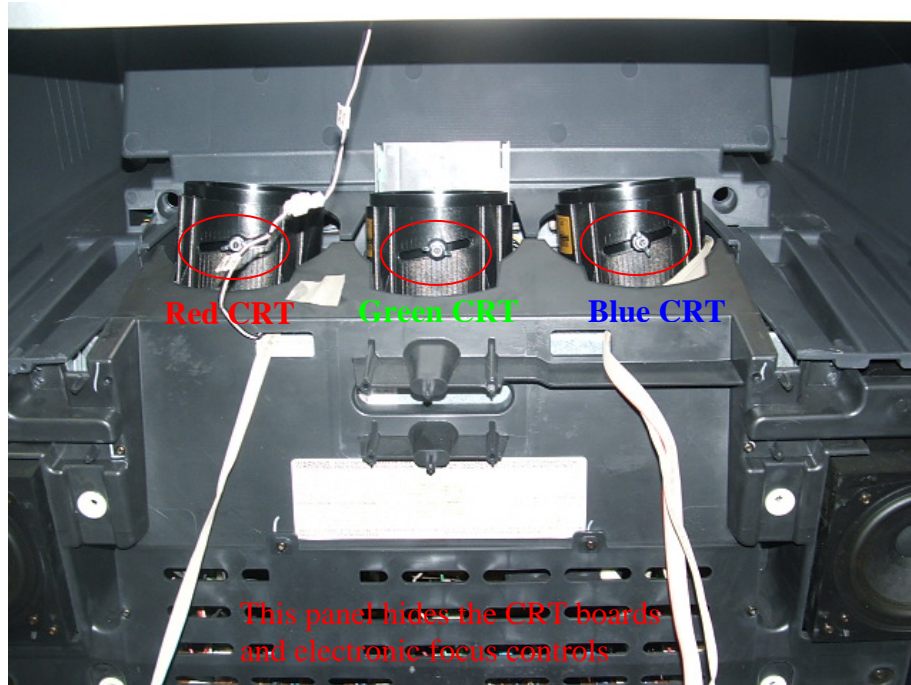


Figure 2: Recess exposed when power/channel/volume panel is removed. Wing nuts for manual focusing are circled in red.

- 8) Use a small flathead screwdriver to adjust the electronic focus for the sharpest line in the center of the screen. See Figure 3.
- 9) If the focus is not acceptable, then loosen the wing nut on the lens assembly as shown in figure 2, and rotate the assembly for a better focus. Then repeat step 8.
- 10) Move the towel over the green CRT and repeat steps 8-9 for the red CRT.
- 11) Use the remote to switch from the red/green convergence grid to the blue/green grid. Repeat steps 8-9 for the blue CRT.
- 12) Turn the power off and reassemble the TV set.
- 13) Run full 3x3, 5x5, and 13x15 convergence on the set for 480 and 1080 (see service manual alignment chapter for details).



Figure 3: Recess exposed when the lower center panel is removed. Allows access to the CRT Kine socket boards and to the electronic SCREEN and FOCUS controls. Focus controls are circled. They are labeled by color. The SCREEN control is used to set CRT “cutoff” (adjust color temperature). Do not adjust it. Do not touch the tube stems or circuit boards (high voltage electric shock danger)!