

☰ Troubleshooting CRT Brightness Fluctuations ▾



- Failure of the EHT (Extra High Tension) regulator circuit components:

- D411 diode
- C430 or C432 capacitors
- TR491 transistor

2. Other possible causes:

- ST3 (IC401) issues - This is the main power & deflection IC that handles video drive and EHT regulation
- Video drive circuit problems:
 - D413 diode
 - TR410 transistor
 - D421 diode
 - TR401 transistor
 - C29 capacitor

3. Power supply related:

- Unstable +5V rail - The manual notes that with dead Ni-Cd batteries, the '+5V' rail can fluctuate significantly above normal voltage when powered from an adapter
- TR409, TR406, TR407 transistors in the power circuit
- D19 diode

The service manual specifically recommends checking the -45V rail and its smoothing capacitor C436 first when encountering strange behavior, as failures here can cause various issues. The manual also notes that electrolytic capacitors become suspect with age due to drying out.

To diagnose, I would recommend:

1. Check the -45V rail voltage and stability
2. Inspect/replace C436
3. Verify the EHT regulation circuit components

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