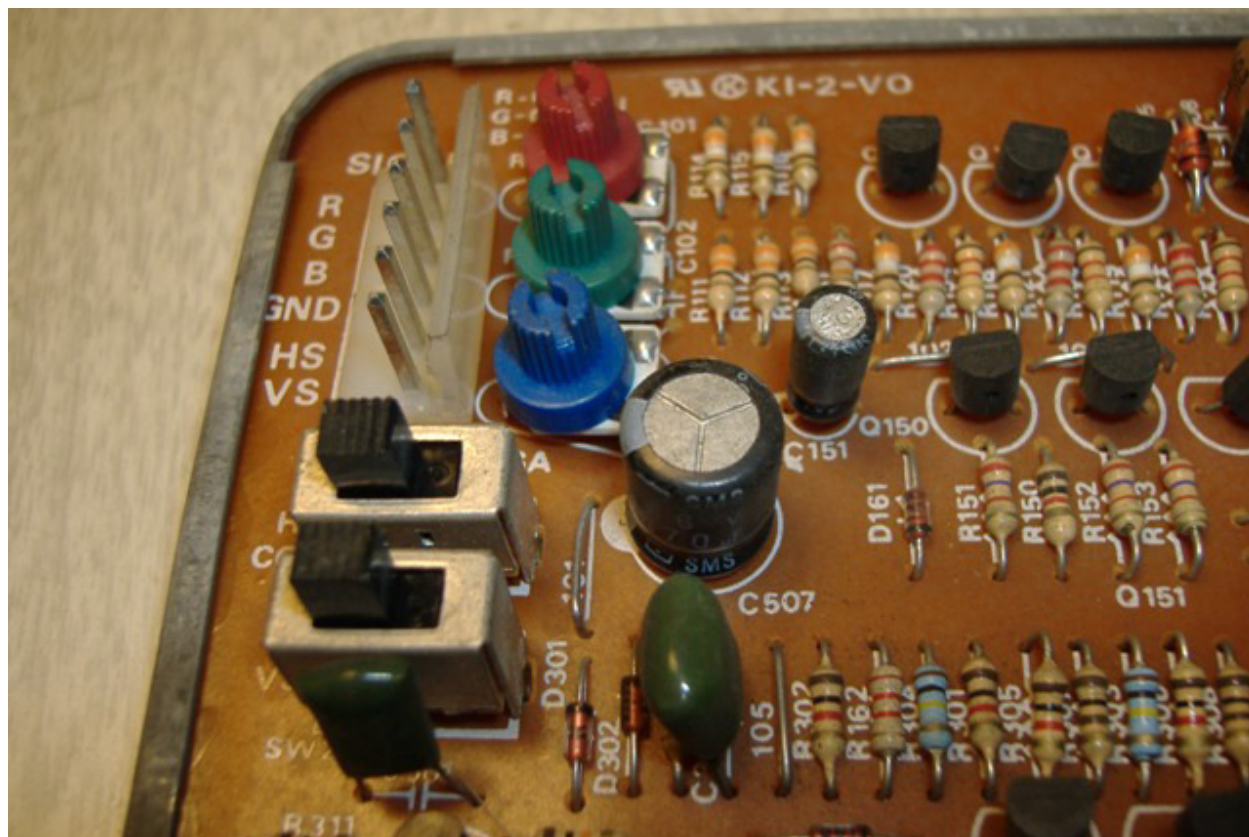
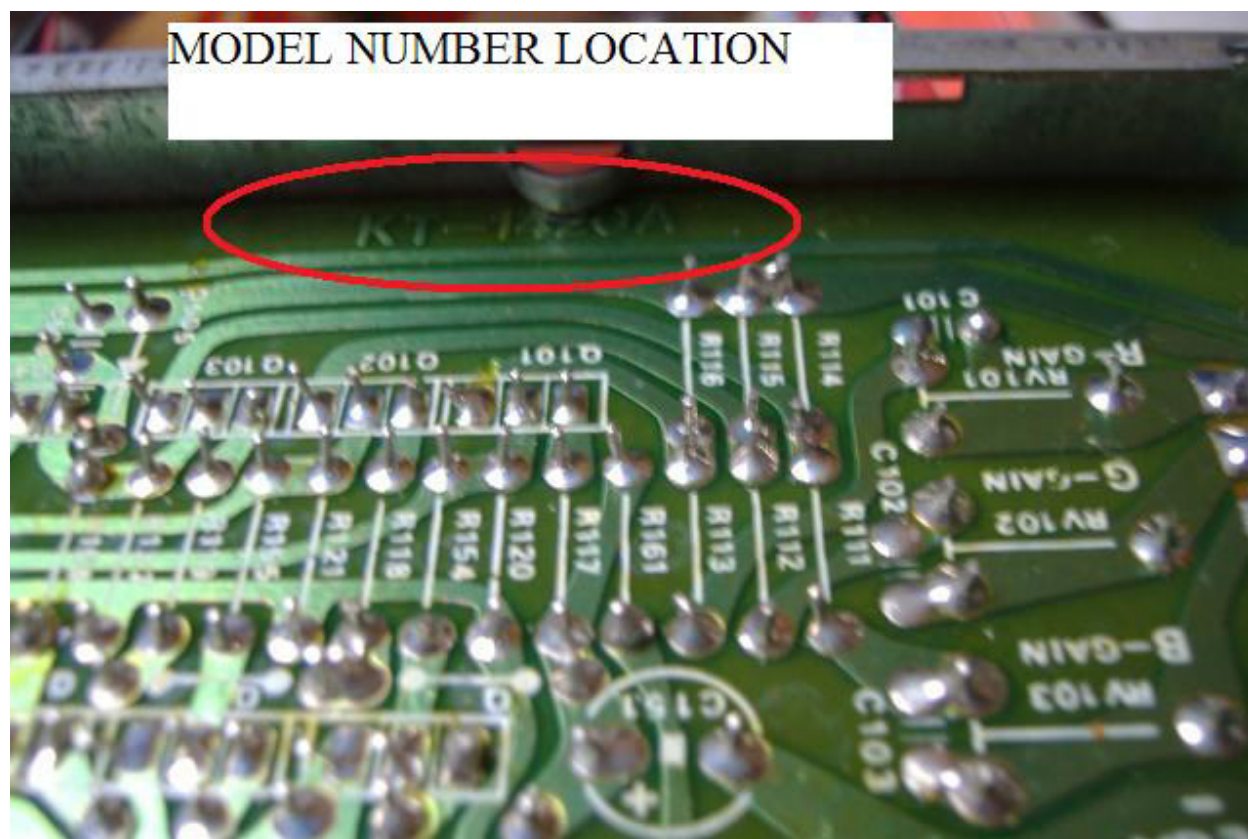


Kortek KT-1420A Repair Guide



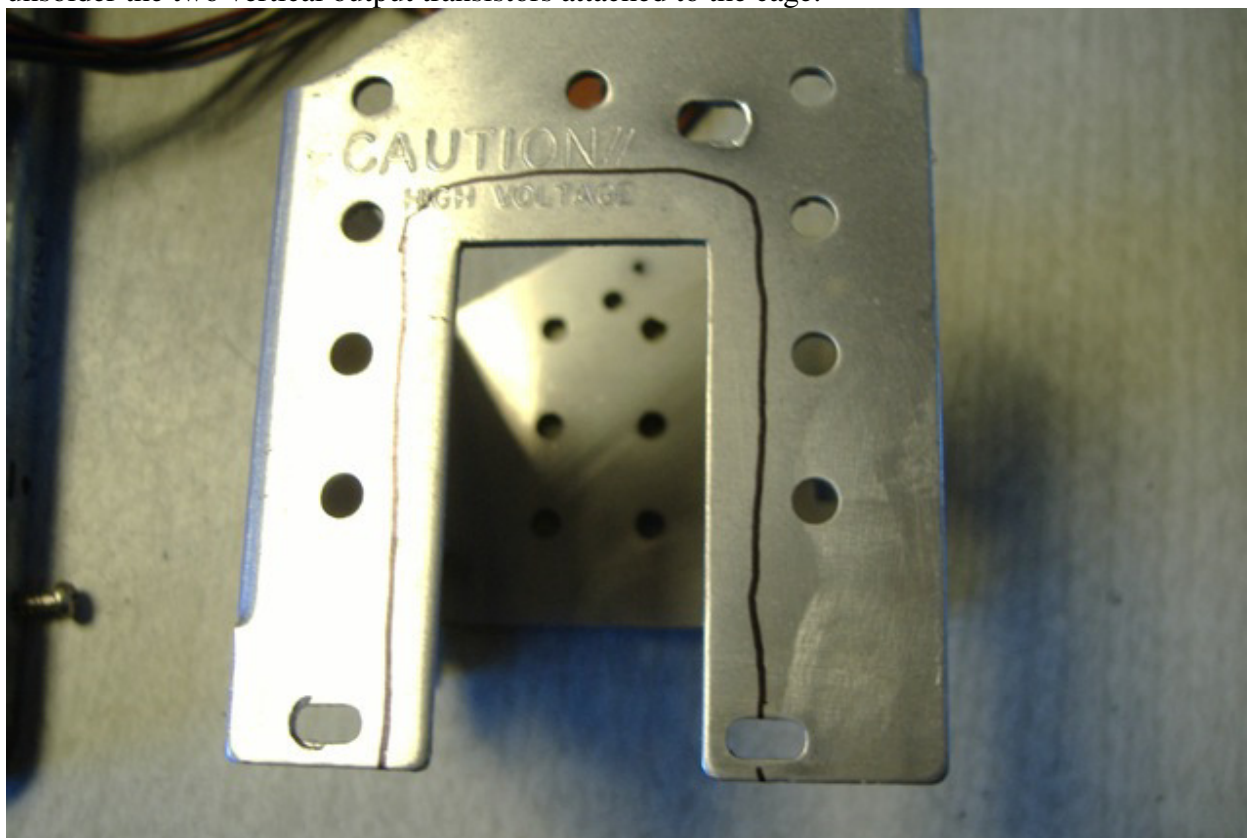
This monitor may be labeled as “KTA-915” or “T & E” or “KI-2-VO” or “JC-TRON” and sometimes might mistakenly be called a Samsung or Orion monitor depending on what brand of picture tube is installed on the chassis. Look on the foil (solder) side of the main monitor board (this assumes you have it already out and laying in front of you) for “**KT-1420A**” silkscreened near the edge of the board frame by transistors Q101 and Q102.

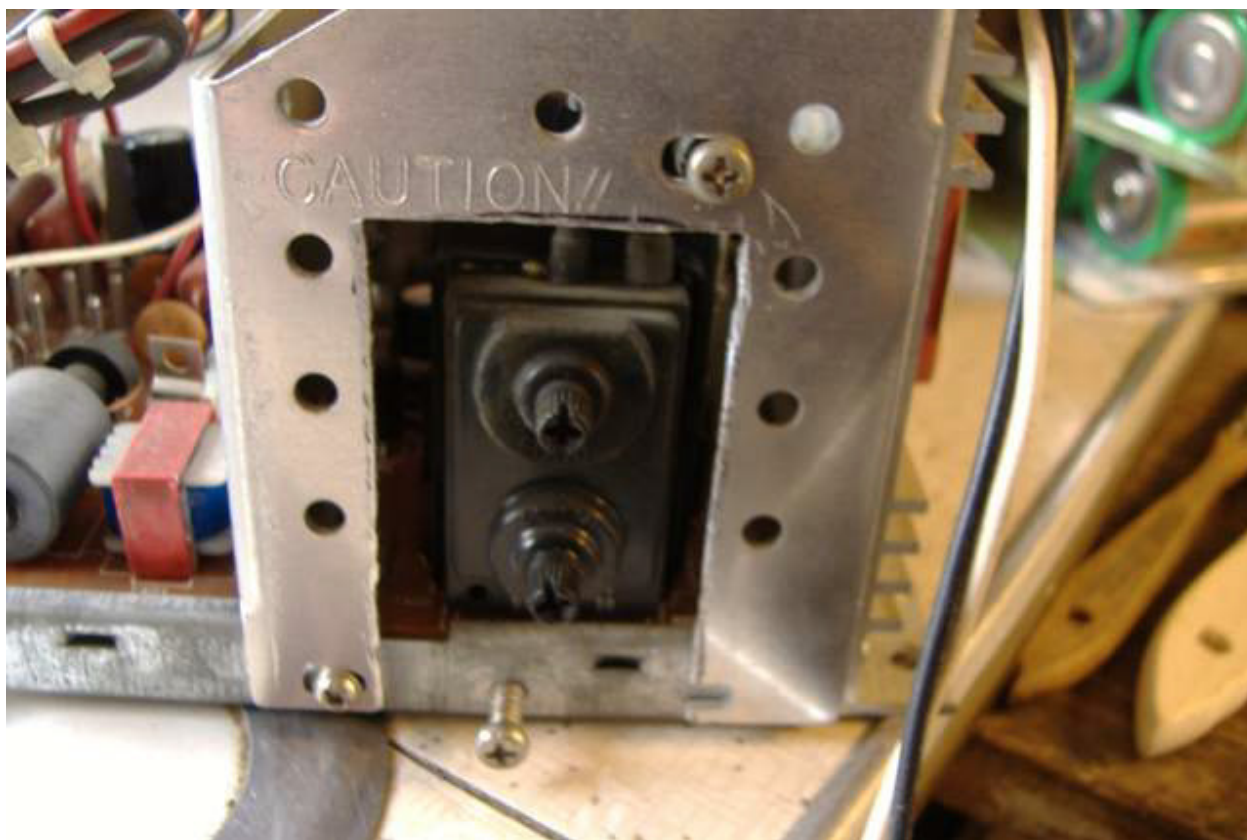


Picture tube info: This model was available with two different tube neck diameters the same as Wells-Gardner did with the K7000 series. Some versions had a large neck tube (29mm) and some had a small neck tube (22.5mm). The large neck one was Samsung # 51GGB95X-TG (no kidding, that's the number printed on mine). Use B&K rejuvenator adapter CR-23 set to 6.3 volts for heater to test/rejuvenate this tube. The small neck one was Orion # A48JLL90X18. Use B&K rejuvenator adapter CR-31 set to 6.3 volts for heater to test/rejuvenate this tube.

Flyback info: # KFS-60291 (HR Diemen # HR 8508) Bob Roberts stocks this flyback and I'm told that MCM Electronics (www.mcminone) stocks the HR8508 version. Happ Controls # 49-0907-00 (\$45.00). Some versions had a # KFS-60737 (HR Diemen # HR 7199) fly back installed. The flyback likes to develop pinhole arcing to the metal cage around it particularly near the focus control. Sometimes this can be fixed by cleaning the area thoroughly with 99% alcohol, drying, then applying clear silicone glue to the arcing area as an insulator. Let the silicone glue dry for 24 hours before powering up the monitor. It helps to cut away about a ¼" of the metal all the way around the opening of the aluminum fly back cage where the focus and screen controls

are. This helps with airflow around the fly back so it runs cooler and the fly back is less likely to arc to the frame. I have marked the approximate area to cut away in the picture. Then a view of the finished enlarged opening of the cage mounted back on the chassis. In order to remove the cage to do this cutting, you have to remove the screws attaching the cage to the chassis and unsolder the two vertical output transistors attached to the cage.



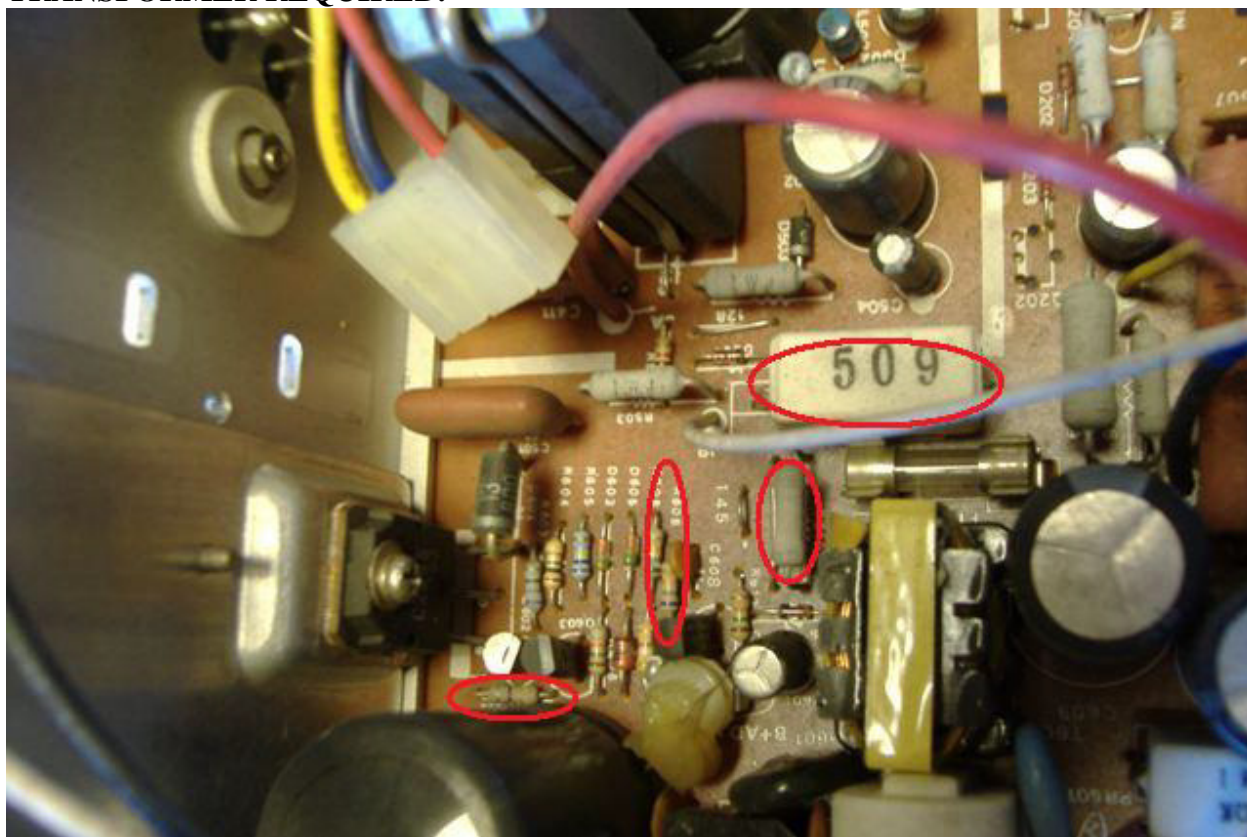


Yoke info: The yellow and green wires are the vertical section and the resistance is 50 ohms. The red and blue wires are the horizontal section and the resistance is 2 ohms. Yoke is SEMCO # DSE-1992NL (used with the Samsung picture tube above). The yoke for use with the small neck tube # A48JLL90X18 is number ODY-M2018.

HOT info: Horizontal output transistor is Q402 and is a type 2SD900B. You can sub a 2SD870 or 2SD871 as a replacement. Be advised the transistor's location is silkscreened as "Q403" on the component side of the board.

Power supply info: The large chassis mounted power supply regulator transistor (Q601) is a type 2SC2555. The smaller power supply transistors, Q602 (A1091 or NTE288) and Q603 (C2610 or NTE399) have been known to fail. There are several resistors to check in the power supply section for open condition or being off value. Check R612 (5 ohm, 5 watt, and may be marked "509" on it, schematic shows this as R610) which is next to the rear of the flyback metal frame. This resistor will go open circuit if there's a problem in the horizontal output circuit. Check R610 (15k, 1 watt) for a big change in value. If it reads less than 14 k then it's out of

tolerance and must be replaced. Also, resistors R608 and R609 (both are 68 k, 1/4 watt) may open up causing a dead power supply. Resistor R602 is a 330 ohm. The circled areas in the picture are of the resistors that can go bad. Check fuse F602 (1 amp normal blow, 5x20mm size) with an ohmmeter to see if it's bad. This fuse may look good but actually be blown so be sure to use you ohmmeter on it. The soldering job on this chassis leaves alot to be desired. You'll need to look closely and resolder a bunch of joints all over the chassis, but pay particular attention to the power supply section and resistor R611 in the X-Ray protection circuit. **ISOLATION TRANSFORMER REQUIRED.**



CAPKIT:

- C151 10 uf @ 50 volts (not included in Zanen capkit # 520)
- C207 1 uf @ 50 volts (not included in Zanen capkit # 520)
- C208 10 uf @ 50 volts
- C209 220 uf @ 16 volts
- C210 10 uf @ 160 volts
- C212 10 uf @ 160 volts
- C213 100 uf @ 160 volts
- C303 1 uf @ 50 volts
- C401 1 uf @ 50 volts
- C402 1 uf @ 50 volts

C407 33 uf @ 25 volts
 C409 10 uf @ 50 volts
 C502 10 uf @ 250 volts
 C503 33 uf @ 50 volts
 C504 3.3 uf @ 160 volts
 C505 470 uf @ 25 volts
 C507 470 uf @ 25 volts
 C509 470 uf @ 25 volts
 C606 100 uf @ 16 volts
 C609 100 uf @ 160 volts
 C610 100 uf @ 160 volts
 C611 47 uf @ 50 volts

Zanen Electronics capkit # 501 for the Wico Videomaster monitor works perfectly for this monitor and it includes resistors R608 & R609. Some versions may be better suited to Zanen Electronics capkit # 520 for Imperial (Betson) 13" & 19" monitors. Most of the time a capkit and resoldering some bad solder joints will bring this monitor back to life. If you still have trouble then check the power supply section and horizontal output transistor. Sometimes the flyback has been known to develop pinholes or cracks and arc to the metal cage and/or the horizontal output transistor's leads and wires thus blowing resistor R612. Replace the flyback if this is suspected.

Kortek's official service, parts, & repair center is: Casino Tech, 2470 Chandler Ave. #7, Las Vegas, Nevada 89120, phone: (702) 736-8472, fax: 702-920-8678, email: casinotech@LVCM.com, URL: www.casinotech.com

UPDATE January 2014: Kortek no longer supports this model or any CRT type of monitor

Parts & manuals are also available from

<http://2coinsperplay.com/Tech/Monitors/Kortek%20html/Kortek.htm>

<http://gamingstuff.com/displays.asp>

Kortek's USA office: Kortek USA, 1320 Freeport Blvd #108, Sparks, Nevada 89421, phone: (775) 359-2204

www.kortek.co.kr/

NOTE:

If you really get frustrated trying to repair this chassis, the Wei-ya model 820H or 820 HR will replace this chassis. It also requires an isolation transformer.

Manuals: This chassis was sold by several USA distributors and was rebranded as their own

despite the fact it is actually a Kortek. You will need to use one, two, or all three of the below manuals to troubleshoot this chassis. Generally if your electrolytic capacitor location numbers top out at the C600's use the Imperial and Tekbilt manuals. If your electrolytic capacitor location numbers top out at the C700's use the Wico SUM-20C manual.

http://arcarc.xmission.com/PDF_Monitors/Imperial.pdf

http://arcarc.xmission.com/PDF_Monitors/Tekbilt%20Monitor.pdf

http://arcarc.xmission.com/PDF_Monitors/Wico%20SUM-20C.pdf

COMPILED BY KEN LAYTON on December 7, 2008

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