

# Wells-Gardner 7300 series monitor Repair Guide

## General Information:

Standard (CGA) resolution with an onboard video inversion pushbutton switch & inverter circuit. Has built-in switching regulator power supply so it does NOT need an isolation transformer. Operates on 90 to 240 volts AC. This monitor can replace the old Nintendo Sanyo monitor since it can accept the inverted video from Donkey Kong & other Nintendo game boards of that era. However, it does not contain an audio amplifier like the Sanyo had so you would need to provide some sort of amplifier for sound. This monitor is manufactured by Wells-Gardner's Korea plant.

## Picture tube info:

Samsung (19") # A48KRD89X02 (10 pins). B&K rejuvenator adapter # CR-23  
 (13") # A34KQV42X01 (8 pins). B&K rejuvenator adapter # CR-31

## Yoke information:

The red & blue wires are the horizontal winding and the dc resistance is 2 ohms. The green & yellow wires are the vertical winding and the dc resistance is 14 ohms. Yoke is Samsung part # DSE 1992 NL. This applies to the 19" tube. I have not yet tested a 13" model.

## Flyback info:

DNF-FA2019 (19") Wells part # 5CL4120190 or HR Diemen # HR7468  
 DNF-FC1426 (13") Wells part # 5CL4114260 or HR Diemen # HR7455

Common problems: Power applied, Monitor dead, No neck glow. Cause: Resistor R812, Transistor Q801, and Capacitor C807 are all bad and should be all replaced. Solution: Replace R812 (68 ohms, 1/2 watt), Q801 (2SC2073 or 2SD478 or NTE 375), and C807 (100 uf @ 16 volts). Check zener diode (7.5 volt) D805 for a shorted condition.

Top half of picture distorted (may have edge ripples in bad half, too). Cause: bad I302 chip. Solution: Replace I302 vertical output IC (LA7833). This IC should have high resistance (500k or higher) between pin 1 and the mounting tab. If resistance is considerably lower then the IC is bad internally.

## Replacement Semiconductors:

Q402 Horiz output (2SC4769 or NTE 2353), Q405 (2SD2058 or NTE 377), I301 Horiz/vert/sync IC (LA7851 or NTE 7062), and I302 Vertical output IC (LA7833 or NTE 1773).

## Service Manuals:

13" K7300 order manual # 069X2894-100

19" K7300 order manual # 069X2896-100

Some service information and downloadable schematics for this series are available from both Wells-Gardner's website ([www.wellsgardner.com](http://www.wellsgardner.com)) and Randy Fromm's website ([www.randyfromm.com](http://www.randyfromm.com)).

## PRELIMINARY CAPKIT LIST:

C412 10 uf @ 250 volts

C560 100 uf @ 16 volts (located on neck board)

C805 470 uf @ 16 volts (upgrade to 25 volts or higher)

C807 100 uf @ 16 volts (upgrade to 25 volts or higher)  
 C808 10 uf @ 160 volts  
 C809 220 uf @ 160 volts  
 C812 220 uf @ 25 volts  
 C818 220 uf @ 160 volts

At this time neither Bob Roberts, Zanen Electronics, nor Wells-Gardner offers capkits for this model. You'll have to make your own from the list above, but at least they are common electrolytics readily available from companies such as Mouser Electronics ([www.mouser.com](http://www.mouser.com)) and Digi-Key. Happ Controls has capkit (KIT270) for the 19K7302 available as their # 49-5072-00.

Chassis/model identification:

13" K7301: WGZ1373-H0GS01H, horizontal mount, uses chassis # 025A1487-001 and neck board # 025A1488-001.

13" K7300: WGZ1373-H0GS09J, horizontal mount with modified mounting brackets, uses chassis # 025A1487-001 and neck board # 025A1488-001.

19" K7300: WGZ1973-H0GS02H, horizontal mount, uses chassis # 025A1489-001 and neck board # 025A1490-001.

19" K7302: WGZ1973-U2GS14H, universal mount , uses chassis # 025A1489-001 and neck board # 025A1490-001. Manufactured around October of 1999.

Wells-Gardner sells the deflection (main) board, neck board, and remote adjustment board as an assembly as part number P809.

Circuit board markings:

Main (deflection) board has a white paper label on the parts side of the board next to the switching power transformer that says, "025A1483-001 G".

Neck board has a white paper label on the parts side and it says, "025A1483-001 G". On the foil side of this board is this marking, "CGA R08 LJY".

Remote adjustment board is marked on the parts side with this silkscreened on it, "SN:5CB11WC001-00".

Remote adjustment board trim pots:

VR720 Contrast 200K

VR721 Brightness 200K

VR722 Horizontal Position 10K

VR723 Vertical Hold 200K

VR724 Vertical Size 500 Ω

VR725 Vertical Position 10K

COMPILED BY KEN LAYTON on February 1, 2005

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