

SUPPLEMENT MANUAL FOR K7000 A



**WELLS-GARDNER ELECTRONICS
CORPORATION**

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THE PRISMATIC™

BY
WELLS-GARDNER

COLOUR SPECIFICATIONS

CRT

- From 9" to 25" diagonal measure
- P22 phosphor
- Polished faceplate standard: variety of optional faceplates and transmittances available.
- Stripe trio spacings (standard): 0.62 mm (9"), 0.66 mm (13"), 0.82 mm (19"), 0.82 mm (25").
- Optional finer pitches available.

INPUT SIGNALS

- Video: RGB analog, 1v to 5v peak-to-peak (adjustable with contrast control), 4.7k ohm input impedance, 40 usec to 50 usec active video.

Optional inputs available:

- Negative video
- RGB analog 0-0.75v, 75 ohm input impedance
- Composite video (NTSC)
- Both composite video and RGB analog: Both signal sources can be connected to the monitor at the same time. Monitor display can be switched from one to the other, at anytime at pixel or vertical frame rate.
- Sync: TTL positive or negative going, separate or composite. Input impedance: 20K ohms for positive going sync; 12K ohms for negative going sync.

HORIZONTAL SCAN

- Width: Adjustable with just one coil to accommodate active video from 40 usec to 50 usec.
- Frequency: 15.1 kHz to 16.8 kHz standard; higher scan frequencies available.
- Linearity: $\pm 5\%$

PICTURE SIZE REGULATION

- 2%

VERTICAL SCAN

- Frequency: 47 Hz to 63 Hz
- Linearity: $\pm 5\%$

GEOMETRIC DISTORTION

- $\pm 2\%$ (max).

VIDEO CHARACTERISTICS

- Bandwidth (-3 db): 12 MHz typical
- Rise Time: Less than 50 nanoseconds
- Overshoot (max): 5%

MECHANICAL

- The 19" and 25" monitors are also available in universal mount brackets. The monitor can be mounted in the user's cabinet horizontally or vertically. Contact your sales representative for details.

USER ADJUSTABLE CONTROLS AND ADJUSTMENTS

- Brightness, Contrast, Horizontal Hold, Horizontal Size, Horizontal Raster Position, Horizontal Video Position, Vertical Hold, Vertical Size, Vertical Raster Position, Focus. Up front control printed circuit board is also available.

POWER INPUT

- 120 VAC +10% -15%, 50-60 Hz, 85W (max). Isolation transformer required.

RESOLUTIONS

- | Standard CRT | Fine Pitch CRT |
|----------------------------|------------------------|
| 9" 280 Pixels x 240 Lines | 410 Pixels x 240 Lines |
| 13" 400 Pixels x 240 Lines | 640 Pixels x 240 Lines |
| 19" 400 Pixels x 240 Lines | 640 Pixels x 240 Lines |
| 25" 560 Pixels x 240 Lines | N. A. |

K7000A REPLACEMENT PARTS LIST

Use General Parts List of K7000 except for following:

9-829 MAIN BOARD (P447)

R83	340X3331-934	330 ohm	5% 0.5w
R108	043X0477-008	.33 ohm	5% 1w ww
△★C36	046X0536-027	5600PF	2% 1600v Polypropylene
C47	080X0099-240	51PF	5% 100v Z5F CER
C52	047X0786-504	.001 UF	10% 50v P-Estr
C59	080X0099-724	Disc .0015	10% Y5P 500v CER
C64	080X0099-241	1200 PF	10% Y5P 500v CER
C65	080X0098-050	270 PF	5% N2200 3Kv CER
C67	080X0099-724	Disc .0015	10% Y5P 500v CER
C68	080X0098-050	270PF	5% N2200 3Kv CER

TRANSFORMER AND COIL

△★TI	053X0605-001	Transf - Flyback
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SEMICONDUCTORS

D18	066X0125-001	Diode GI Type DG3 1400v 3A
Q11	086X0310-001	TRSTR 2SD 1556 Toshiba
IC3	086X0311-001	IC Vert Output AN5515
IC4	086X0302-002	IC Regulator STR30123

9-830 NECK BOARD (P456)

SEMICONDUCTORS

Q201	086X0312-001	TRSTR NPN	Vid Out
Q202	086X0312-001	TRSTR NPN	Vid Out
Q203	086X0312-001	TRSTR NPN	Vid Out

MISCELLANEOUS

STK201	003A0681-001 Pix Socket
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9-831 NECKBOARD (P448)

RESISTORS

R214	340X4226-241	22MEG Ohm 10% 1w Carbon
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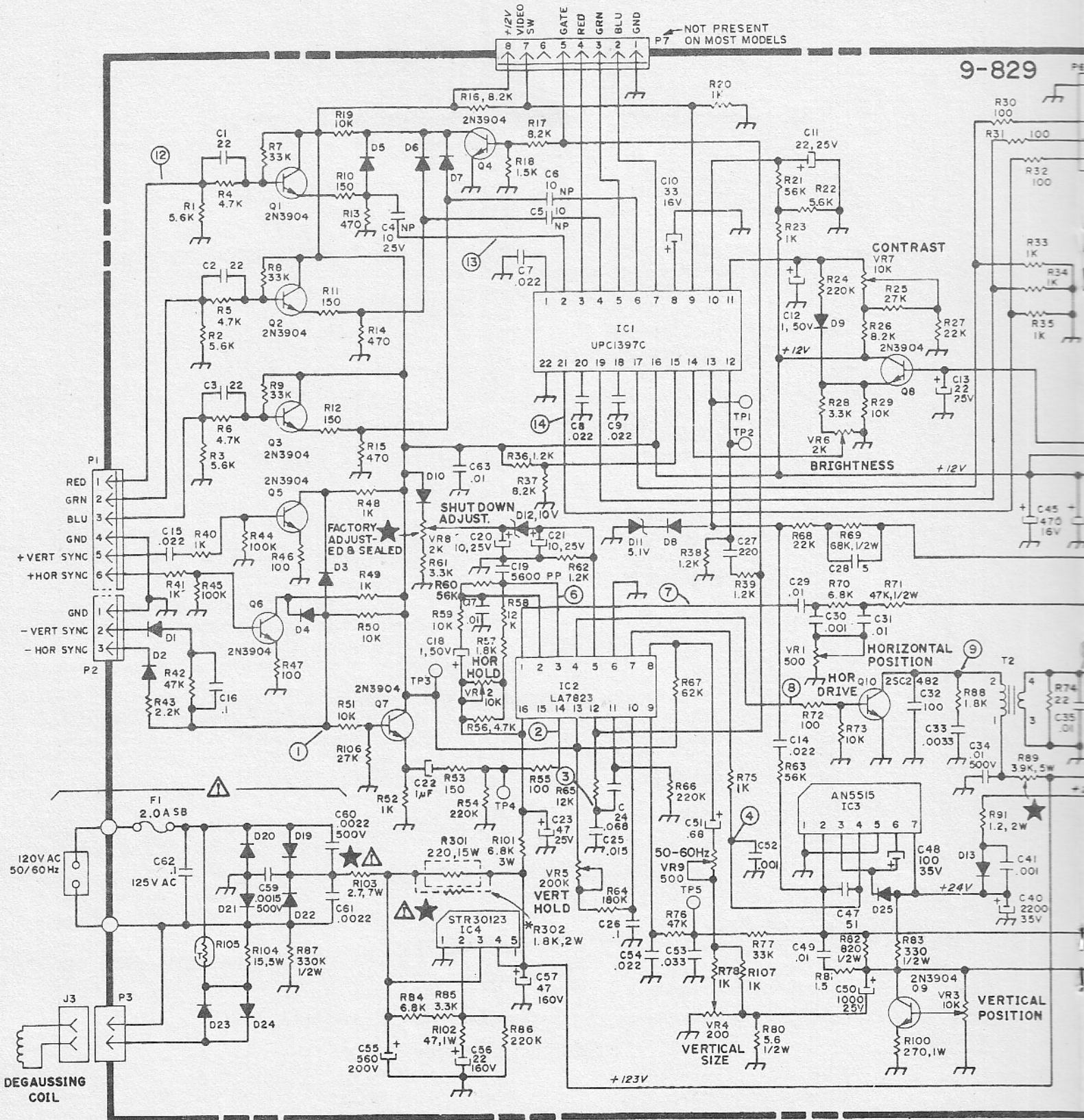
SEMICONDUCTORS

Q201	086X0312-001	TRSTR NPN	Vid Out
Q202	086X0312-001	TRSTR NPN	Vid Out
Q203	086X0312-001	TRSTR NPN	Vid Out

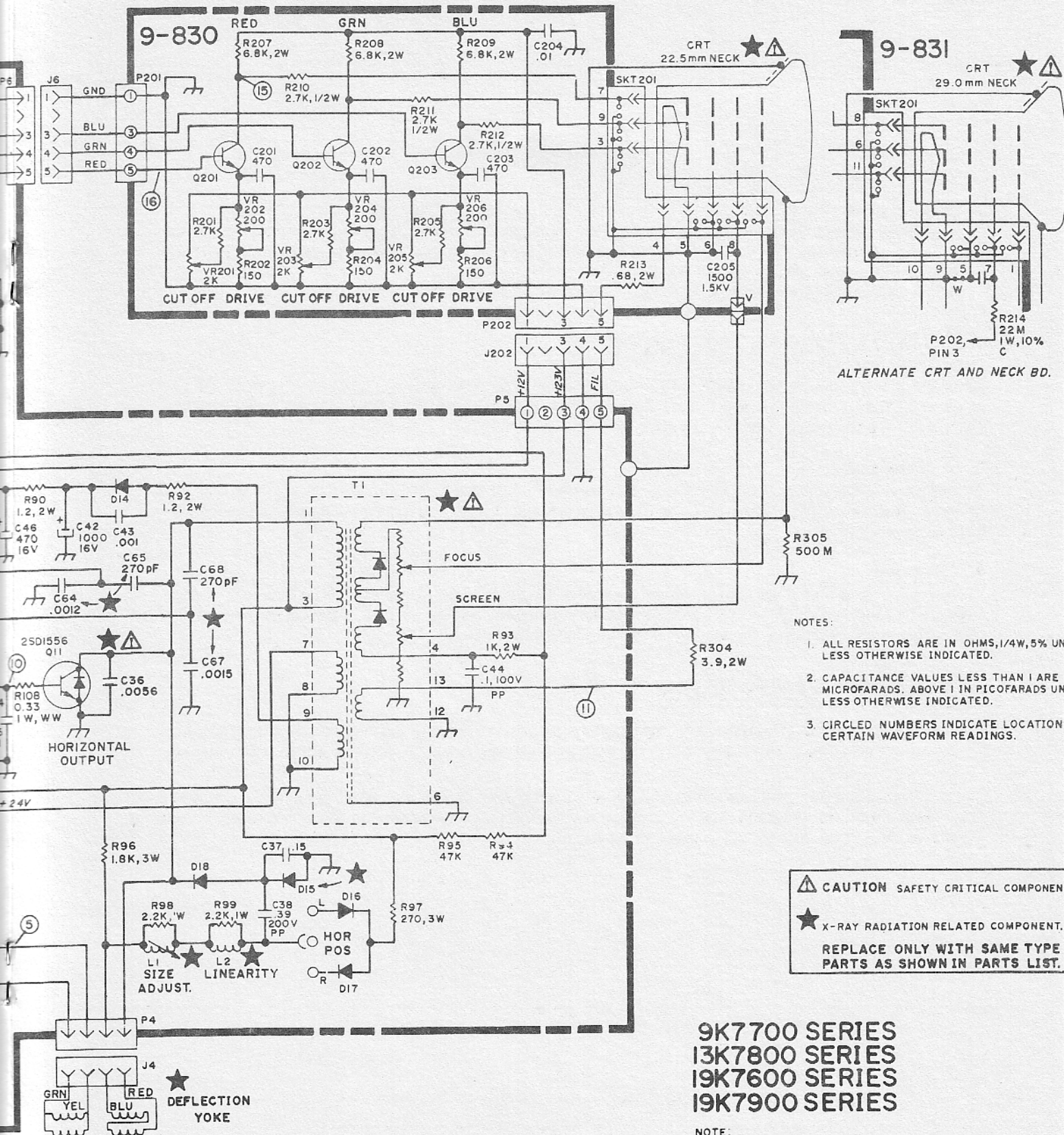
MISCELLANEOUS

STK201	003A0682-001	Pix Socket
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K7000A COLOUR MONITOR SCHEMATIC DIAGRAM



*R302 IS PRESENT ONLY ON 19IN. AND LARGER MONITORS.



- NOTES:
1. ALL RESISTORS ARE IN OHMS, 1/4W, 5% UNLESS OTHERWISE INDICATED.
 2. CAPACITANCE VALUES LESS THAN 1 ARE IN MICROFARADS. ABOVE 1 IN PICOFARADS UNLESS OTHERWISE INDICATED.
 3. CIRCLED NUMBERS INDICATE LOCATIONS OF CERTAIN WAVEFORM READINGS.

⚠ CAUTION SAFETY CRITICAL COMPONENT.

★ X-RAY RADIATION RELATED COMPONENT.

REPLACE ONLY WITH SAME TYPE PARTS AS SHOWN IN PARTS LIST.

**9K7700 SERIES
13K7800 SERIES
19K7600 SERIES
19K7900 SERIES**

NOTE:
REFER TO OTHER SCHEMATIC
DIAGRAMS FOR CERTAIN UNIQUE
MODELS.

WARNINGS

1. Power Up Warning —

An isolation transformer must be used between the AC supply and the AC plug of the monitor before servicing testing, or operating the monitor since the chassis and the heat sink are directly connected to one side of the AC line which could present a shock hazard.

Before servicing is performed, read all the precautions labelled on the CRT and chassis.

2. **X-RAY RADIATION WARNING NOTICE**

WARNING: PARTS WHICH INFLUENCE X-RAY RADIATION IN HORIZONTAL DEFLECTION, HIGH VOLTAGE CIRCUITS AND PICTURE TUBE ETC. ARE INDICATED BY (★) IN THE PARTS LIST FOR REPLACEMENT PURPOSES. USE ONLY THE TYPE SHOWN IN THE PARTS LIST.

3. High Voltage —

This monitor contains HIGH VOLTAGES derived from power supplies capable of delivering LETHAL quantities of energy. Do not attempt to service until all precautions necessary for working on HIGH VOLTAGE equipment have been observed.

4. CRT Handling —

Care must be taken not to bump or scratch the picture tube as this may cause the picture tube to implode resulting in personal injury. Shatter proof goggles must be worn when handling the CRT. High voltage must be completely discharged before handling. Do not handle the CRT by the neck.

5. **PRODUCT SAFETY NOTICE**

WARNING: FOR CONTINUED SAFETY REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER RECOMMENDED PARTS. THESE PARTS ARE IDENTIFIED BY SHADING AND BY (△) ON THE SCHEMATIC DIAGRAM.

For replacement purposes, use the same type or specified type of wire and cable, assuring the positioning of the wires is followed (especially for H.V. and power supply circuits). Use of alternative wiring or positioning could result in damage to the monitor or in a shock or fire hazard.

**NOTE: For other K 7000 Models Refer to K7000 Service Manual
Part No. 69X1705-100.**

NOTES

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