

SPECIFICATIONS

Power Consumption:	240 watts	Screen Size:	
Antenna Impedance:		46GW950	46 inch diagonal
ANT A	75 ohms unbalanced	P46100TN	46 inch diagonal
ANT B	75 ohms unbalanced	P46150WK	46 inch diagonal
CONVERTER	75 ohms unbalanced	P52150WK	52 inch diagonal
Channels Received:		Video Inputs:	
Off-Air VHF	2 thru 13	INPUT 1	1Vp-p at 75 ohms
Off-Air UHF	14 thru 69	INPUT 2	1Vp-p at 75 ohms
Cable-Low VHF	4A (1)	S-VIDEO	1Vp-p at 75 ohms
Cable-Low Midband	A-2 (98), A-1 (99)	Video Outputs:	
Cable-Midband	A thru I (14 thru 22)	SELECT OUT	1Vp-p into 75 ohms
Cable-Superband	J thru W (23 thru 36)	Audio Inputs:	
Cable-Hyperband	W + 1 thru W + 28	INPUT 1	400mVRMS
	(37 thru 64)		>10K input impedance
Cable-Ultraband	W + 29 thru W + 53	INPUT 2	400mVRMS
	(65 thru 89)		>10K input impedance
	W + 54 thru W + 56	Audio Outputs:	
	(126 thru 128)	HI-FI OUT	400mVRMS
	W + 57 (93), W + 58		<2K output impedance
	(94)	SELECT OUT	variable level
	W + 59 thru W + 84		2VRMS maximum
	(100 thru 125)		400mVRMS at nom.
IF Frequencies:		EXTERNAL SPEAKERS	volume setting
Pix Carrier	45.75MHz		10W/ch. RMS into 8
Sound Carrier	41.25MHz		ohms
Color Subcarrier	42.17MHz		50-20,000 Hz, <1.5%
Specifications subject to change without notice.			THD

INSTALLATION

The upper backcover (which holds the mirror assembly) is placed in a shipping position at the factory and must be properly positioned for in-home use. If not properly positioned, the raster will be distorted and convergence will appear to be misadjusted. Refer to the label on the upper backcover for assembly instructions.

CLEANING

Screen

Use a soft, clean cloth moistened in water only. Wipe the front of the screen in a up/down motion, following the vertical black stripes. Wipe the rear of the screen in a circular motion, following the concentric circles of the fresnel lens. If the screen cannot be cleaned with water, use a neutral detergent cleanser (less than 20% concentration).

Picture Tube Lenses

Clean the faces of the picture tube lenses with a soft cloth and a small amount of liquid glass cleaner or anti-static cleaner (stock no. AH035).

Mirror Assembly

To clean the mirror, use a non-abrasive, neutral detergent cleanser (less than 20% concentration). Wipe with a soft, clean cloth; do not apply excessive pressure.

To reduce scratches on the mirror surface, use a small amount of carnauba wax. Wipe with a soft, clean cloth; do not apply excessive pressure.

SERVICING PRECAUTIONS

Due to differences in picture tube design, projection television instruments present the servicer with safety concerns that do not apply to standard direct-view instruments. The following procedures **must** be observed when servicing the instrument:

1. The picture tube lens assemblies provide shielding to prevent exposure to x-ray emissions. **DO NOT OPERATE THE INSTRUMENT WITH ONE OR MORE LENS ASSEMBLIES REMOVED.**
2. The picture tube anode cups provide shielding to prevent exposure to x-ray emissions, and are not meant to be replaced by the servicer. **DO NOT REMOVE THE ANODE CUP FROM THE PICTURE TUBE ASSEMBLY.** Replacement part picture tube assemblies include an anode lead.
3. The **High Voltage Check** procedure (see **SERVICE ADJUSTMENTS**) must be performed prior to any servicing procedure to assure that the x-ray protection circuit is operating properly.

COMPONENT NUMBERING SYSTEM

Serviceability of this chassis is enhanced by prominent roadmapping on the top and bottom of the circuit boards. The component numbering system relates to general circuit areas as follows:

0000 Series - External Speaker Jack	4500 Series - Vertical Deflection
1000 Series - Luma/Chroma/Deflection (1-chip)	4600 Series - Standby Supplies
1100 Series - Audio DNR	4700 Series - Secondary Supplies
1200 Series - Audio FM Detector	4800 Series - Pincushion
1400 Series - Video Input Switching/Hi-Fi Audio Output	4900 Series - X-Ray Shutdown
1600 Series - Digital Audio Processing	5000 Series - Kine Driver
1900 Series - Audio Output	6400 Series - Digital Comb Filter, PIP Adapter
2300 Series - Audio/Video IF	7000 Series - PTV Auxiliary Circuits:
2600 Series - Analog Comb Filter	Aux Power Supply
2700 Series - Luminance Processing	Convergence Output Drivers
2800 Series - Chrominance Processing	Dynamic Focus
2900 Series - RGB Bias/Drive and OSD	Scan Loss Protection
3100 Series - System Control:	7100 Series - PTV Auxiliary Circuits:
Keyboard/IR Input	Aux Power Supply
Chassis Interface	Convergence Output Drivers
3200 Series - System Control:	Dynamic Focus
Digital Memory	Scan Loss Protection
3300 Series - System Control:	7200 Series - PTV Auxiliary Circuits:
Tuning Control	Convergence Output Drivers
Chassis Interface	
3400 Series - Front Panel Switching/IR Preamp	8000 Series - Pix-In-Pix (S-PIP)
3600 Series - Tuner Interface	8100 Series - Convergence Generator, S-PIP
4000 Series - AC Input	8200 Series - Convergence Generator, S-PIP
4100 Series - Power Supply Regulator	8300 Series - Convergence Generator, S-PIP
4200 Series - Degaussing	8400 Series - Convergence Generator, S-PIP
4300 Series - Horizontal Oscillator/On-Off Switching	8500 Series - S-PIP
4400 Series - Horizontal Output	8900 Series - S-PIP Micro