

## IVC-501A Features

- Silicon diode red tube for true red reproduction
- Computer-derived masking for correct green and blue rendition
- Lowest noise in reds of any camera
- FET preamplifiers for low noise and excellent dynamic range
- RGB contours from green enhancer with noise coring (optional)
- Operation at 108 lux (10 ft-c) solves remote pickup problems
- High camera sensitivity reduces costs of lighting and air conditioning
- YRB matrixing for immunity to registration errors and better resolution

# IVC-501A

## Color Television Camera

### Description and Applications

The IVC-501A combines the best available camera tubes to produce the finest colorimetry of any camera available today. With the proven\*\* silicon diode tube in the red channel, and Plumbicons\* in the blue and green, this camera sets a new performance mark in sensitivity and color fidelity.

The IVC-501A, with its capability for operation at light levels under 100 lux, allows televising of night games, news events, and other marginally-lighted scenes without losing color fidelity. A built-in neutral density filter wheel and pull-out viewfinder sun shade allow the IVC-501A to perform well under brightly lighted conditions also.

The IVC-501A is now essentially immune to registration errors. Even when registration must be done in haste, or after several hours' operation has produced slight drift, the YRB matrixing technique holds horizontal resolution so the picture is not noticeably affected.

The IVC-501A offers the user all the features required of a big-performance color camera. Included is 2000-foot cable compensation, negative registration display, adjustable gamma correction, external video feed to the viewfinder, electronic skew, and FET preamplifiers. An optional RGB contour enhancer is available.

All major circuitry is on plug-in, fiberglass printed circuit boards. A rugged main frame casting accurately positions all components. The patented IVC color optics eliminates polarization problems such as the "green hair" phenomenon associated with prism-type color cameras. Silicon transistors and ICs are used exclusively.

*\*TM N. V. Phillips*

*\*\*There are now more than 200 color cameras in use with the silicon diode tube.*



# IVC-501A Specifications

## GENERAL

Scanning Standard: 625 lines, 50 fields, 25 frames

Pickup Tubes: 2 separate mesh 1" (2.54 cm) Plumbicons, 1 separate-mesh 1" (2.54 cm) silicon diode tube

Taking Lens: RTH Varotal XX 15 to 150mm, f2.0 zoom with servo iris control, local or remote. Optional RTH QC Varotal XX 15 to 375mm four-step zoom.

Viewfinder Size: 9" diagonal (23 cm) provides 100 ft-lamberts brightness

Intercom: Party line with individual gain and anti-side tone, one module in camera, two in CCU

## DIMENSIONS

		Depth	Width	Height
Camera Head (without lens)	inches	27.0	11.75	15.75
	cm	68.6	29.8	40.0
Camera Control Unit*	inches	3.75	19.0	7.0
	cm	9.5	48.3	17.8
Camera Junction Unit*	inches	12.5	19.0	7.0
	cm	38.1	48.3	17.8
RGB Enhancer*	inches	13.5	19.0	3.5
	cm	34.3	48.3	8.9

\*Standard 19" (48 cm) rack mounting

Weight: Camera Head (without lens): 75 lbs. (34 kg)

## VIDEO

Output: One (1) R,G,B output, 0.7V non-composite; separate switched outputs for picture and waveform monitoring

Resolution (Luminance Signal): 25% modulation at 400 lines without contour correction; 100% modulation with correction

Contour Correction (optional): Horizontal and vertical with noise coring

Geometric Distortion: Less than 1% in a circle having a diameter equal to picture height, 2% elsewhere

On-axis Linearity: Better than 1%

Registration Error: Less than 0.15% within a circle having a diameter equal to 80% of picture height. Less than 0.25% elsewhere

Gamma: Switchable 0.3, 0.5, 0.7, 1.0; maximum tracking error, 1%

Signal-to-Noise Ratio: 45 dB at 150 nA signal current in green tube\*

Sensitivity: Operation below 108 lux (10 ft-c) with 12 dB preamp gain switched in (S/N ratio approximately 36 dB)

Cable Compensation: Up to 2000' (608m) for standard 1" (2.6 cm) diameter cable, 1600' (486m) for 1/2" (1.3 cm) diameter miniature cable

Encoding: Encoders available for PAL and SECAM

## CONTROLS

Camera Head: Lens zoom, focus and iris; viewfinder brightness and contrast, viewfinder R,G,B,-G and EXT display selector

Camera Control Unit: Master pedestal, iris, waveform monitor display selector, picture monitor display selector, horizontal R and B centering, vertical R and B centering, RGB targets, RGB gains, RGB pedestals, R and B gamma law

## INPUTS

Power: 230 Vac  $\pm$ 10%, 50 Hz, 260 watts

Drives: V-drive, H-drive, blanking

\*With typical pickup tubes at 1345 lux (125 ft-c) incident scene illumination, 60% scene reflectivity, lens at f4.0, bandwidth 5 MHz, no chroma, no contour correction, gamma at 1.0, measured at encoder output.

Specifications subject to change without notice.



International Video Corporation

## CORPORATE OFFICES AND MAIN PLANT

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