

AMPEX

CC-452 Television Camera System



The New Camera that Delivers Professional Quality for CCTV at a Low Cost

Ampex, the company which has introduced superior equipment at low cost for CCTV, does it again with the CC-452—a black and white camera which outperforms all others in its class, at a competitive price.

The CC-452 is lightweight, versatile, easy-to-use. It features superior Ampex electronics which make it capable of producing professional results in any CCTV application. The camera signal is of such outstanding quality that excellent results can be maintained even in multiple generation duplicate tapes with appropriate recording equipment.

Superior Picture Quality

Pictures are sharp, brilliant, clear, with exceptional contrast and resolution. The camera uses a $\frac{3}{4}$ -inch separate mesh vidicon tube with a 50 gauss focus field. Horizontal resolution is 550 lines centre, 400 lines corner. Automatic light level control is standard, with a switch to permit manual operation when preferred.

Easy Operation

The CC-452 incorporates the latest features for easy operation and maintenance.

A 5", recessed viewfinder eliminates the need for a

cumbersome viewfinder hood. Although it resembles an integral viewfinder, it is a plug-in model which may be easily removed if servicing is necessary. Resolution of the viewfinder is 450 lines centre, 350 corner. By a selectable switch the viewfinder may also be used as a video monitor.

The camera, which weighs a mere 19lbs. without lens, may be used with almost any lightweight tripod.

All controls may be easily operated, including a mechanical back focus adjustment at the rear of the camera. Tally light and intercom features are incorporated within the camera. The single cable exit is at the bottom of the camera.

Sync Options

The CC-452 is designed for versatility. It will provide quality results in any CCTV system for educational, commercial or industrial applications. The following sync options are available:

- **Random Interface:** the horizontal is a stable oscillator; the vertical is locked to the AC power line frequency.
- **CCIR Internal:** CCIR internal sync when used with the optional AC-123 sync module.
- **External:** Standard level horizontal and vertical drive pulses as provided by an external sync generator.

Lens Options

The CC-452-03 comes equipped as standard with the model LE-656 (f/2, 5:1-14 to 70mm) zoom lens. The CC-452-04 comes less lens.

The camera will also accept virtually any other standard television lens, including front and rear-operated zoom lenses.

Reliability

Like all Ampex products, the CC-452 is engineered for long-term reliability with minimal maintenance. The camera's low power consumption of less than 45 watts, and its fully regulated power supply help assure prolonged, trouble-free performance.

SPECIFICATIONS

ELECTRICAL

INPUT VOLTAGE: 115/230V \pm 10%, 50/60 Hz.

INPUT POWER: Less than 45 watts.

VERTICAL SWEEP RATES: 60 or 50 per second.

HORIZONTAL SWEEP RATES: 15,750 or 15,625 per second.

SCANNING: Random interlace; 2:1; 525 lines per frame @ 30 frames per second or 625 lines per frame @ 25 frames per second. Optional sync board for CCIR type output.

TYPE OF SYNC & BLANKING WAVEFORM: Sync and blanking waveform meet RS-330 except for random interlace. Optional sync board for CCIR.

CAMERA TUBE TYPE: 2/3 inch, 8844 separate mesh vidicon. Accepts most 2/3 inch vidicons of the separate mesh type using a 50 gauss focus field.

SENSITIVITY: 1.0 volts peak-to-peak black negative video output with an f/1.4 lens viewing a standard 800 line EIA test chart with 10 foot lamberts average illumination; full bandwidth signal-to-noise (peak-to-peak video to rms noise) 40 dB with a 4.5 MHz filter.

CAMERA RESOLUTION: Horizontal 550 lines centre, 400 lines corner minimum.

VIEWFINDER RESOLUTION: Horizontal 450 lines centre, 350 lines corner minimum.

AUTOMATIC LIGHT RANGE: Scene illumination ranging from 10 to 10,000 foot lamberts (using an f/1.4 lens) will produce less than a 2 to 1 change in peak-to-peak video output. Switchable from auto to manual.

RESOLUTION STABILITY VS. TEMPERATURE: Not more than \pm 50 horizontal lines variation over an

ambient temperature range of 0°C to 45°C (32°F to 113°F).

RESOLUTION STABILITY VS. INPUT VOLTAGE VARIATION: Not more than \pm 50 horizontal lines variation over a voltage range of 105-130V or 210-250V.

GREY SCALE RENDITION: Provides at least 10 shades of grey using EIA grey scale overlay strips with the EIA Standard Chart.

OUTPUT VIDEO: Composite: 1.0V p-p amplitude, sync 28% of total amplitude; black negative polarity; source impedance 75 ohms AC coupled; load impedance 75 ohms. Provisions made for picture polarity reversal and non-composite output.

OUTPUT RF: Not applicable.

GEOMETRIC DISTORTION: 3% (maximum) within a circle whose diameter is equal to picture height.

SCAN FAILURE PROTECTION: Electronic.

HORIZONTAL SCAN FREQUENCY: Horizontal oscillator. Optional horizontal drive input. 2.0 to 4.5 volts negative going pulse at 75 ohms.

VERTICAL SCAN FREQUENCY: Derived from the AC power line. Optional vertical drive input. 2.0 to 4.5 volts negative going pulse at 75 ohms.

DC COMPONENT TRANSMISSION: Video AC coupled to output, no DC in output.

AUTOMATIC IMAGE PROTECTION AGAINST EXCESSIVE LIGHT: Not available as standard equipment.

MECHANICAL (5" VIEWFINDER)

DIMENSIONS (LESS LENS): 16 $\frac{5}{8}$ " long, 10 $\frac{1}{4}$ " high, 6 $\frac{3}{4}$ " wide.

WEIGHT: 19 pounds less lens.

TYPE OF LENS MOUNT: C-mount, standard 1" or $\frac{3}{4}$ " television lenses (1"—32 thread)



CAMERA MOUNT: Two $\frac{1}{4}$ "—20 tapped hole (standard tripod mount) located on the base of the camera. Space to balance camera with different lens options.

TYPE OF COAXIAL CONNECTOR: BNC (UG-625/U).

TYPE OF CAMERA CONNECTOR: 20 pin Hirose Electric V series CL-213

ENVIRONMENTAL

AMBIENT TEMPERATURE LIMITS: 0° to 50°C (32° to 122°F).

AIR PRESSURE LIMITS: 10,000 feet.

VIBRATION LIMITS: Normal commercial shipping.

SHOCK LIMITS: Normal commercial shipping.

HUMIDITY LIMITS: 95%.

OPTIONS/ACCESSORIES

AC-122 — EIA RS-170 syncboard (60 Hz).

AC-123 — 2:1 sync board for international version (15,625/50 Hz).

CA-729 — 25' cable connects CC-452 to AC-125.

CA-730 — 50' cable connects CC-452 to AC-125.

CA-731 — 100' cable connects CC-452 to AC-125.

CA-732 — Adapter cable CC-452 camera to CC-450 type cable.

MA-401 — Operator's headset for use with CC-452.

AC-125 — Portable television production centre, including switcher/fader, special effects generator with dual camera control, triple 5" monitors and audio mixer.

Descriptions and specifications subject to change without notice.

Sales and Service Offices in: Niveles, BELGIUM; Reading, ENGLAND; Boulogne-sur-Seine, FRANCE; Frankfurt, GERMANY; Rome and Milan, ITALY; Beirut, LEBANON; Monrovia, LIBERIA; Utrecht, NETHERLANDS; Johannesburg, SOUTH AFRICA; Sundbyberg, SWEDEN; Fribourg, SWITZERLAND.

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