

**cei**

# CEI-287 PROFESSIONAL COLOR TELEVISION CAMERA SYSTEM

## TAKE A NEW LOOK



Here is a truly outstanding professional camera system producing pictures of the highest quality, and with a whole list of features that make it incomparable in its price class. There is simply nothing else to match it.

The 287 is part of the CEI 200 Series professional family of camera systems which also includes the 280 studio camera and the 290 portable production camera. And it is a true family, with total modularity, faultless color matching, and common operating and camera control units. The cost savings and convenience provided by this commonality are substantial.

Major 287 system features include:

- Three 1" lead oxide tubes, including extended red.
- Operational control panel.
- Solid-state electronics throughout.
- Self-contained, tiltable 7" viewfinder, with viewfinder select.
- An advanced optical system that reduces lag.
- Standard Schneider f/2.0 10:1 zoom lens, plus a variety of optional lenses, extenders, and accessories.
- Extremely high (50dB) signal-to-noise ratio.
- Servo controlled lens iris.
- Built-in filter wheel operated from the back of the camera.
- Simplified camera head controls, permitting the cameraman to concentrate on his subject.
- Very fast warmup and long-term stability.
- Preset shading for all three channels.
- Black stretch to improve contrast in dark areas under

outdoor sun-shade or other high contrast lighting situations.

- Variable paint controls for gain control over R, G, B camera output, with switch for instant return to original color balance.
- Lightweight camera cable with automatic advance timing.
- Completely modular camera control unit.
- Masking amplifier for easy color matching with other types of cameras.
- Highly accurate and stable NTSC encoder.
- White pulse automatic gain control in each channel permits adjustment of masking while camera is "on the air" without affecting peak white signal or maintenance of white balance.
- Two independent intercom channels from camera head to operating control unit.
- Video monitoring at camera head to facilitate special effects.
- Optional image enhancer which not only generates vertical and horizontal detail, but also includes comb filtering and noise coring.
- Optional pulse advance system provides a complete crash lock color sync generator.
- Latest in state-of-the-art electronic design for operating convenience, long-term stability, and easy maintenance.

There are other features, too, many of which cannot be found on any other medium-priced camera in the world. So take a close look at the CEI-287. Get in touch with your CEI representative today.

# CEI-287 SPECIFICATIONS

**STANDARDS. Scanning:** EIA 525/60, CCIR 625/50.

**Encoding:** NTSC (in accordance with FCC and EIA requirements), PAL, and SECAM. **Power:** 117/220V  $\pm 10\%$ , 47-63 Hz.

**CAMERA TUBES.** Three 1" lead oxide: broadcast or industrial quality Green; broadcast or industrial quality Blue; broadcast or industrial quality extended Red.

**PERFORMANCE. Horizontal resolution:** at center, limiting at no less than 550 lines, typical 600 lines. Response is 100% at 300 lines with aperture correction, depending upon pick-up tube and lens limits. **Signal-to-noise ratio:** 50dB

(unweighted) while camera delivers 0.7V white signal is achieved under following conditions: lighting color temperature 3200°K; 50 f/c incident light level; iris at f/2.8; contours ON; bandwidth limited to 4.2 MHz; viewing 60% reflectance Munsell white; unity gain. **Maximum sensitivity:** under same conditions but with 15 f/c incident light and +12dB gain, camera delivers 0.7V output at reduced S/N ratio.

**Geometric distortions:** less than  $\pm 0.5\%$  within circle equal to picture height. Less than  $\pm 1\%$  elsewhere, excluding zoom lens distortions.

**CONTOURS.** Horizontal aperture correction and contours-from-green.

**IMAGE ENHANCEMENT.** 2-line enhancer for vertical aperture equalization plus horizontal enhancement.

## ZOOM LENS OPTIONS.

With filter wheel in camera head: Schneider 10:1 f/2.0 TV-40; Schneider 20:1 f/2.0-f/4.0 TV-20x17; Angenieux 10:1 f/2.8 10x15B. Other optional lenses and a variety of range extenders and accessories are available.

## FLARE COMPENSATION.

Individual red, green, blue flare compensation provided.

## SHADING ADJUSTMENT.

Horizontal and vertical sawtooth and parabola for each channel.

## MASKING AMPLIFIER.

Permits adjustment of hue and saturation without affecting gray scale tracking.

## GAMMA CORRECTION.

Continuously variable from 1.0 to 0.35 for each channel.

**INTERCOM.** Two external party lines available. Input impedance is 200 ohms at approximately 500mV p-p.

**VIEWFINDER.** Tilttable and removable, 7" diagonal. Resolution 800 lines at 125 foot Lamberts. Adjustable high peaking control. Feeds: Y, R-G, B-G, and engineering/special effects (all selectable from back of camera).

**CONTROLS. Camera Control Unit (CCU)** includes all power, set-up, and other controls, plus electronics.

**Operating Control Unit (OCU)** provides all DC controls normally used during camera production operation, and may be remotely located.

**CAMERA CABLE.** CEI lightweight, 1000' automatic advance timing. Optional TV-81, 2000'.

**INPUTS.** With lockable pulse generator installed, composite video 1.0V p-p. Otherwise, Sync, Blanking, H Drive, V Drive, Subcarrier.

**OUTPUTS.** All impedances are 75 ohms. R, G, B camera video 0.7V noncomposite. Encoded video: two fixed noncomposite and two switchable composite 1.0V or noncomposite 0.7V.

**MONITOR OUTPUTS.** Two noncomposite 0.7V p-p. Sequencer optional.

## COLOR REGISTRATION.

**Zone 1:** circle equal to 0.8 picture height, 0.1%. **Zone 2:** circle equal to picture width, 0.2%. **Zone 3:** elsewhere, 0.4%.

**ENVIRONMENTAL.** System operates satisfactorily at altitudes up to 10,000 feet and in ambient relative humidities up to 90% within temperature range of  $-20^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ .

**PHYSICAL CHARACTERISTICS.** Camera head and viewfinder, less optics: 18" long by 18" high by 8" wide; weight 52 pounds; mounting via  $\frac{3}{8}$ "-16 holes in mounting plate. **CCU configured for rack mounting with rack slides:** 19" wide by 7" high by 18" deep; weight 45 pounds; requires 4" rear clearance for cable service. **OCU, configured for rack mounting:** 19" wide by 1 $\frac{3}{4}$ " high by 3" deep; weight 5 pounds.

CEI operating control and camera control units are common to all 200 Series cameras.



Simplified rear panel makes the cameraman's job easy.

# CEI

Take your new look at CEI now. Write CEI, 880 Maude Avenue, Mountain View, California 94040. Or call: (415) 969-1910

