

Microcam

TTV 1600



THOMSON-CSF

Microcam^{®*}

TTV 1600

ENG CAMERA**
PORTABLE COLOUR CAMERA
ULTRA-MINIATURE
THREE 2/3" PLUMBICON^{®***} TUBES



FEATURES

LOW WEIGHT

The complete MICROCAM consists of two units:

Camera head with lens and viewfinder:
8 lbs (3.63 kg)

Electronics pack: 3 lbs. 10 oz
(1.64 kg)

Total weight: 11 lbs. 10 oz (5.27 kg)

MECHANICAL CHARACTERISTICS

CAMERA HEAD

- Height: 9.9 in (25.15 cm)
- Width: 3.12 in (7.92 cm)
- Depth: 6.8 in (17.27 cm)

ELECTRONICS PACK

- Height: 6.6 in (16.76 cm)
9.1 in (23.1 cm) with battery compartment
- Width: 3 in (7.62 cm)
- Length: 6.8 in (17.27 cm).

Design configuration permits each of the elements to be operated and carried

independently for maximum flexibility and portability.

The camera head can be held with one hand, easily, exactly as a conventional 16 mm film camera.

LOW POWER REQUIREMENTS

Miniaturization has reduced power consumption of the camera components to a remarkably low 36 watts:

- Camera head: 9.5 watts
- Viewfinder: 1.5 watt
- Electronics packs: 17 watts approx. (PAL and SECAM versions).

These low-power requirements permit operation of one hour with a nickel cadmium battery pack which can be recharged in three hours. Longer operation and 15 minute accelerated recharge is available as an option.

Standard batteries are 1/2 D cells and weigh 2 pounds per conservative hour of operation. A standard 12 volt battery belt can also be used, thus permitting several hours of operation.

CAMERA HEAD

The iris control is a spring-loaded rocker in the handle grip of the camera which provides proportional speed control. Provision is made for automatic iris level control with manual change of the reference level for unusual scenes via the same rocker switch.

VTR trigger switch with momentary ON or OFF latch.

On-air cue lamp on front of camera with switchable ON or OFF.

Three-position filter wheel in front of prism.

Rear loading Plumbicons[®] for easy replacement.

Low camera profile allows cameraman full visibility.

f/1.4 Prism assembly.

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** Electronic news gathering

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Miniaturization of TV Equipment follows the normal trend of Television. It creates new possibilities in TV coverage and entails new needs.

The MICROCAM® was born on the other side of the Atlantic to meet the recent upsurge in electronic news gathering (ENG). It is extremely lightweight; it really is a portable camera. Hand held, it has the operating simplicity of a 16 mm movie camera. Its full broadcast performance makes it a broadcast

quality camera according to the internationally accepted standards. Used in conjunction with a portable VTR and mounted aboard a motor cycle, a light vehicle, a boat or helicopter according to the requirements, it provides maximum mobility with first-on-the-scene capability for recording important news events as they are happening and well in advance of the current O.B. vehicles arriving to take over. Associated with a mobile transmitter it permits on the scene live transmission.



Interchangeable lenses include, among others:

Schneider f/1.8 - 10 × 1 - 10/100 mm, manual control with servo iris and servo zoom.

Fujinon: f/2 - 6 × 1 - 12.5/75 mm

Fujinon: f/1.4 - 7 × 1 - 9/63 mm

Fujinon: f/1.9 - 10 × 1 - 10/100 mm

Fujinon: f/1.7 - 12 × 1 - 9/108 mm

Fujinon: f/1.4 - fixed - 6 mm

Fujinon: f/1.9 - 14 × 1 - 10/100 mm

Angénieux: f/1.8 - 15 × 1 - 9.5/143 mm.

Optional motorized zoom and iris.

Range extenders are available for some of the above lenses.

Lens specifications and availability are subject to change; with new lenses appearing frequently.

Internal camera head set-up controls: Over-scan switch.

Focus rock switch.

Test pulse switch for checking each channel with a standardized target current.

Bias light ON/OFF switch. When in the OFF position, automatically removes bias light shading and dark current compensation so no camera readjustment is necessary.

Bias lamp is quickly and easily accessible for easy replacement

Beam-set switch which reduces pre-amp by 6 dB permits setting beam controls at 1 f-stop over normal.

VIEWFINDER

Completely self-contained unit with 1 1/2 inch (3.8 cm) CRT.

Viewfinder is hinge mounted for overhead or floor-level operation and has a two-inch diagonal magnifier. Highlight brightness is 150-foot lamberts with full DC restoration. Its 6.9 KV EHT provides excellent resolution.

CONTROLS

Brightness, contrast, focus and video peaking.

DISPLAYS

Video level indication with cross-hatch at flesh-tone level. Iris position indicated by vertical pulse at top of picture. Tape remaining indicated by proportional bar at top of picture. Lights: Green VTR status, Yellow low-battery warning, Red on-air cue light and red colour-balance warning. Colour balance warning light alerts operator when incorrect filter is in position when balancing or if further colour balancing is needed.

VTR interface connector automatically switches viewfinder to VTR when VTR is in playback mode.

Optional 4-inch (10.16 cm) viewfinder is available with the same 1.5 watt power consumption as the standard 1-1/2 inch viewer. Possibility to be plugged into either the camera head or the electronics pack.

ELECTRONICS PACK

Contains complete signal processing circuits on four microcircuit boards and provides:

One SECAM or PAL encoded video output and encoded sub-carrier output
Full 3-channel masking with ON/OFF switch for matching colorimetry to studio cameras.

Built-in 2-line image enhancer with comb filter and crispening, and level-dependent aperture.

SECAM or PAL encoder with built-in colour bar generator.

Auto master black level with ON/OFF switch.

Colour Gen-lock black level by external composite video signal.

Three-position sensitivity switch, 0 dB, +6 dB and +12 dB.

Adjustable flare compensation.

Master oscillator requires no warm-up time. Camera warm-up is four seconds from standby.

Registration outputs include RGB and/or -G with 50% set up to external monitor BNC or viewfinder.

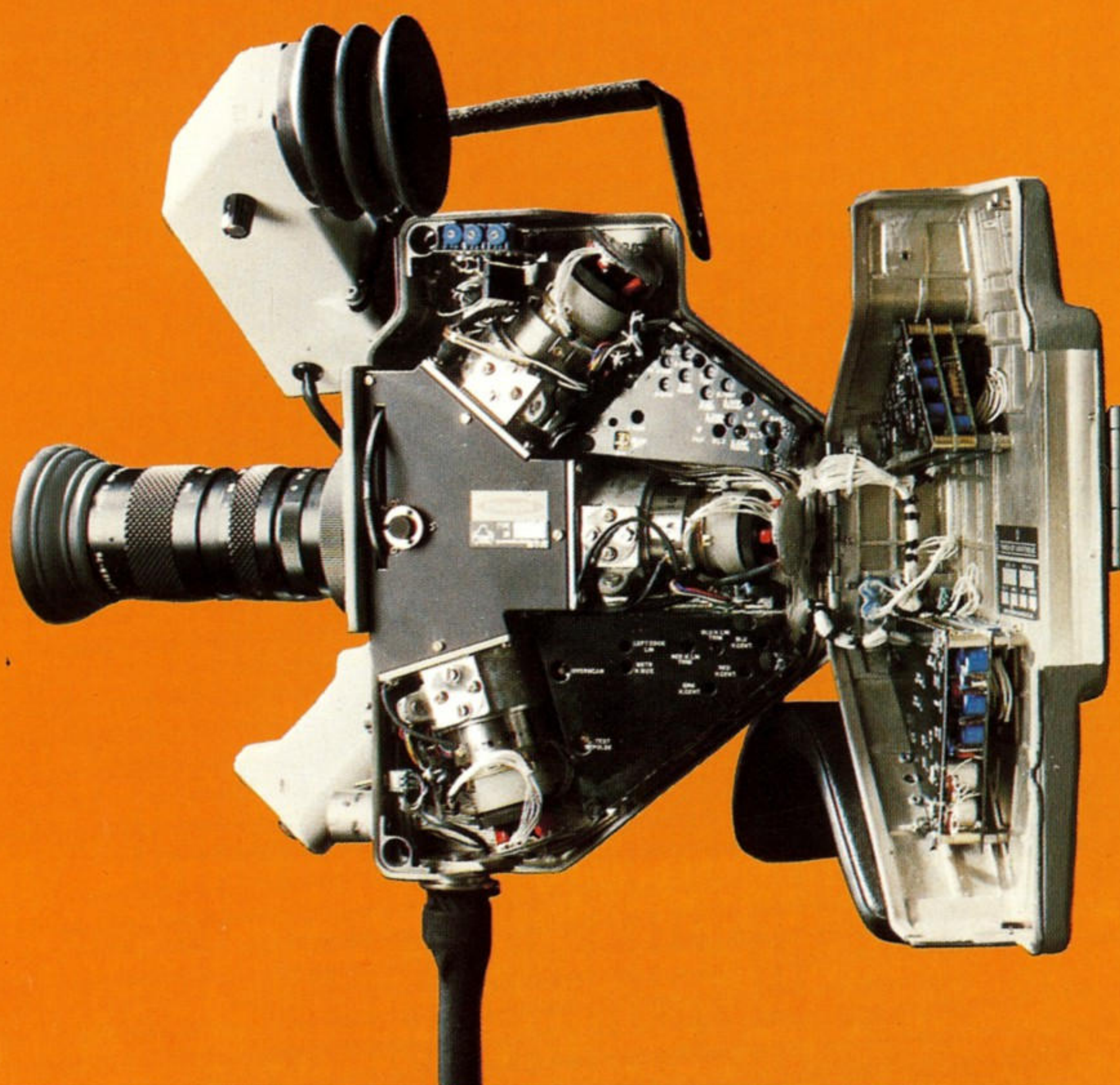
Colour balance circuit with digital memory.

External connector for optional 4-inch monitor viewfinder which can be used for tripod operation and used in tandem with camera viewfinder.

Battery input voltage is 10.5 to 20 V
Automatic shut-down at end of battery life so nickel cadmium cells do not deep discharge.

"Keep-alive" nickel cadmium battery holds digital memories while changing main battery. Charged from main battery automatically while camera is in use.

Optional ground isolation transformers are available on special order to isolate the camera from the genlock input and video output coax cables. They protect the operator if the camera is connected to an improperly grounded AC operated base station. They fit within the bottom cable adapter plate.



THOMSON-CSF

DIVISION
RADIODIFFUSION TÉLÉVISION
DIRECTION COMMERCIALE
94, rue du Fossé-Blanc
92231 GENNEVILLIERS FRANCE
TÉLÉPHONE : 790.65.49
TELEX : THOM DRT 620 573 F

www.tvcameramuseum.org