

European and American Television Cameras



Data

Tube details 1 x 3" Image Orthicon
Len details 4 position turret, 2" to 25" focal lengths with large thread screw.
Sig. to Noise 40dB.
Sensitivity
Resolution 500Lines at center of picture
Viewfinder 5"dia removable 22H x 10W x 22L"
Camera cable RCA/Cannon 1000 ft
Power supply 193 to 254v 50Hz. 1000 watts

Data

Line standards 405/50 525/60 and 625/50**
Colour standards Monochrome
Drives or locking Four Mono Pulses
Weight * 65lbs Excluding Viewfinder
Colours Grey crackle
Dimensions * 14H x 11W x 25L Inches.
Date designed Approx. 1946
Dates used From about 1948
 *Excluding Viewfinder (35lbs.)
 ** demonstrated in 625 at the 1948 British Industries fair

Associated equipment

The CCU and PSU were in matching mobile cases and the CCU had its own built in picture & waveform monitor. There was an SPG and it's PSU to match in mobile cases, a communications unit, a 6 input vision switcher and a small range of matching studio equipment were available.

Developments

Use of 3" image orthicon tube.

General Description

Thin tall camera with detachable viewfinder on the top, it had a magnifying lens in the viewfinder hood. There was also a periscope option for the viewfinder hood. The side covers fold down. The Mk1 has no feet or fan cover. The operator controls are behind two vertical hinged covers at either side of the rear of the camera. I am told that the Mk1A has a multi turn focus control knob and the Mk1B a quadrant action handle. The Mk1 is a copy under license of the RCA TK30.

References

WW May 1949 Page 181, with nice photo, WW advert Oct 1949 with picture of complete sysetem showing a Mk 1A, WW Nov. 1950 page 58 showing TK30. TV Engineering, Amos & Birkenshaw, Iliffe, page 197. "Electronic Engineering" May 1949 page 165 to 168 has a description of the Boat Race.

Notes

In "The History of the Marconi Company" on page 364 it is reported that the BBC was not

BBC outside Broadcast usage

Three were used in BBC MCR 10 and Two in the Roving Eye II

Reference

BBC Engineering Monograph No. 39 October 1961

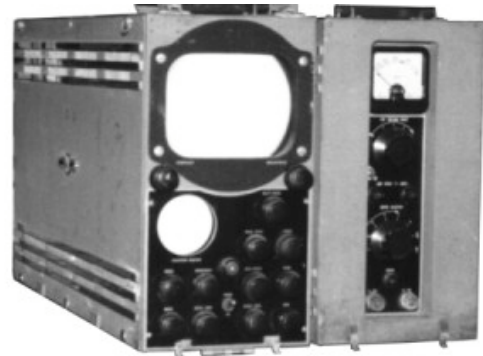
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impressed by the studio performance of the Mk1. Only 6 Mk1s were made and the BBC accepted the developed Mk1B in 1950. Tom Mayer states in IEE Colloquium that only 6 Mk1 and 6 MK1b's were made.

Used by

The BBC used a Marconi Mk1, probably an A, to televise the 1949 Oxford and Cambridge Boat Race. The camera was mounted in the bows and its CCU and PSU, an SPG and its PSU were installed in the front of the boat. At the rear was the 3 KVA generator and the outgoing vision link.

This operated between 50 to 60 MHz. with a power of 25 watts peak white. The camera was mounted on rubber cushions in an attempt to reduce the effects of vibration on the camera's sensitive and microphonic Image Orthicon tube. The BBC had not accepted the Marconi Mk1 at this time but due to the good sensitivity of the Image Orthicon tube it was chosen as the most suitable camera for the job. The commentator sat in the middle of the boat with his outgoing radio link. He sat next to an army PCR receiver. This was probably for reception of off air cues or production talkback. The motor launch "Consulta" had a crew of sixteen on the day the photograph was taken.



Marconi Mk1 CCU and PSU

Part of the left side with the line scan valves

