


European and American Television Cameras

	Make :	Marconi
	Model :	Mk 3 BD687 BD808
	Country	UK
	Camera Type : Studio Image Orthicon	
	Camera Description : Large imposing camera with square lens turret. "Beer handle" focus control lever.	

Data

Tube details 1 x 3" or 4.5" Image Orthicon
Len details 4 position turret, iris preset
Sig. to Noise 40dB.
Sensitivity 10-20ft candles at F5.6
Resolution More than 400 lines???
Viewfinder 5" Tilts and elevates
Camera cable BICC Mk3 1000ft.
Power supply 100-125 & 200-250v 50-60Hz. 1Kw.

Data

Line standards 405/50 625/50 525/60
Colour standards Monochrome
Drives or locking Four Mono Pulses
Weight * 170lbs
Colours Gray Rivel finish
Dimensions * 440H x 400W x 670L mm.
Date designed Approx. 1953
Dates used 1954 to about 1965 (UK)

*Excluding Lens

Associated equipment

The CCU, PSU, and picture & waveform monitor were available in studio consoles or mobile cases and there was a full range of matching studio equipment available. A separate focus current PSU was needed for the 4.5" tube. There was a zoom lens adapter, which replaced the complete turret. It made the camera very much bigger and only gave the small range of 5 to 1!

Developments

Early models used the 3" IO tube as there were problems in meeting the BBC specifications with the 4.5" tube, later models used the newly developed 4.5" I.O. tube and had improved head amplifiers. A remotely controlled rotating variable density filter wheel was used for exposure control. The removable electronic chassis, hinged outwards in a frame for maintenance access.

General Description

This camera had a large square shaped front casting with the 4 position turret and filter wheels. This complete front assembly could be removed to give access to the camera tube. The lenses had a round mounting flange and conventional iris ring with no servo motor drive. The taking lens was the bottom right hand one (from the rear). The 5" Viewfinder lifts out of a recess on the top of the camera and it tilts



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up or down. It had a magnifying lens in the viewfinder hood.

References

Page 104 WW March 1958. May 1954 P85 early turret. Handbook T.2904. See Pages 366-8 "A History of the Marconi Company".

Notes

In "A History of the Marconi Company" it is reported that the early 4.5" tubes were unsatisfactory and the cameras were converted back to 3" until improved tubes were available in 1955/6

WW March 1958 Page 104 gives the model No. BD808. 181 were sold in the UK and 122 exported a total of 303. Tom Mayer states in IEE Colloquium that a MK3 was modified to work on 1100lines 60 Hz. with excellent pictures.

Used by

BBC, ATV, Tyne Tees, Associated Redifusion training studio in Kensington.

Surviving cameras

The NMFPTV has at least 3, I have 2 in my collections and there are a number of others.



BBC outside Broadcast usage

Four are used in BBC MCR 13
Three are used in BBC MCR 14,15,and 16
Two are used in BBC MCR 18
Three are used in MCR9 (Wales)

Reference

BBC Engineering Monograph No. 39 October 1961

Suffix numbers used

BD.687A 405 3" IO
BD.687B 525 3" IO
BD.687C 625 3" IO
BD.687D 405 4.5" IO
BD.687E 525 4.5" IO
BD.687F 625 4.5" IO