

PYE MK7 television camera from 1965

The PYE Mk7 Broadcast Camera (part No. 842116 or LDM53) was designed in about 1964. This camera represents the final development of the Image Orthicon camera by Pye TVT.

It was not very successful in this country as the imminent arrival of colour TV inhibited the UK's broadcasters from investment, but Pye had the benefit of a world wide sales team and many were sold overseas.



The camera is fully transistorised, except for the HV rectifiers and it uses the 4.5" I.O. tube with the latest Elcon target material, Elcon stands for "electronic conducting" and it removed the stickiness problem of earlier tubes.

Operation was possible up to 1000ft away from the camera control unit (CCU) using the BICC Mk4b camera cable. For distances over this an "in line brick" was fitted in the camera cable as a booster. The camera channel featured an auto test signal, stable design with operational use of the new Joystick Iris and lift control.

This camera's design represents a shift in the concepts for lenses, the turret has gone and in its place is a single mount to accept a zoom lens. Together with the transistorisation this results in a slimmer camera. The turret change lever has gone and the focus control, mounted on the pan bar, is now part of the lens servo system.



A choice of zoom lenses from different manufacturers, with different focal lengths and ranges could be fitted to the common lens mount.

This is a 10:1 lens by Angenieux and the servo systems for zoom, focus, and iris, are by Evershed Power-Optics. The 3 motors are at the back, the 3 servo amplifiers at the front and the zoom & focus controls mount on the pan bars to as arranged by the cameraman. The Iris control is on the CCU operated by the vision control engineer.

At the front of the camera there is a 5-position filter wheel operated by the cameraman. The camera's front folded down to access the filters and tube face plate for replacement or cleaning. The tube was changed from the rear of the camera. Operation on the three different line standards, 405, 525 & 625 was possible. The camera weighed a modest, for the period, of 45Kg.

It is interesting to compare the two cameras on display, in the course of just 6 years, from all valve to all solid state. Significant reductions in size of the camera and particularly the CCU/PSU, power consumption and reliability improvements.