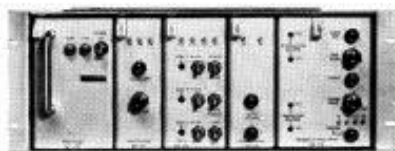




Colour Coder Type B3370

The B 3370 Colour Coder accepts the signals obtained from a colour television camera and combines them into the form required by the NTSC or PAL systems. The provision of adequate front panel test points, and set-up controls, and the switches for 'input paralleling' and for each 'channel on/off' make initial setting up straightforward.



Features

Accepts inputs from 3- or 4-tube cameras. Local or remote input selection. Suitable for 625 PAL or 525 NTSC systems. Self powered. Full-range subcarrier phasing controls. Solid-state, modular, construction.

Description

Input signals may be GRB from a 3-tube camera or YGRB, from a 4-tube camera. Changeover between the 3- to 4-tube mode is controlled by a single switch.

The matrixed chrominance signals are passed through filters to establish the correct bandwidths, shown in the Data Summary, and then via trim delays to modulator drivers. Subcarrier is fed to the balanced modulators through a phase shifter, enabling any number of coders to be precisely adjusted for working into a common output.

Data summary

Inputs

Mains: 100–125V and 200–250V in 5% steps, 50–60Hz.

Syncs Blanking and Burst Gate

Pulse: 1.6 to 6V negative p-p, high impedance bridging.

Subcarrier: 0.5 to 4.0V p-p, high impedance bridging.

Video: 2 each (relay switched) of G, R, B, plus Y at 0.7V p-p positive going. High impedance bridging.

Colour axis switching: 0.5 to 4V, high impedance bridging (PAL only).

Outputs

Derived Luminance: One output which may be looped into Y input for 3-tube working.

Coded colour signal: Two isolated composite NTSC or PAL signals at 1.21V p-p, source impedance $75 \pm 2\Omega$. May be raised to 1.7V p-p.

Performance

Temperature range: 0 to 45°C.

Crosstalk: between coded outputs, better than -40dB from 10Hz to 6MHz.

Luminance Channel: Response: within ± 0.4 dB from 50Hz to 8MHz, less than -3dB at 10MHz.

Tilt: less than 2% on 50Hz square wave.

Pulse and bar response: better than 1.0% K factor, (2T).

Gain stability: ± 0.25 dB for $\pm 10^\circ$ in temperature range.

Hum: better than -66dB to 0.7V.

Chrominance Channels: Crosstalk

rejection better than 40dB.

Video bandwidths: As specified for the relevant systems.

Differential gain: less than 0.75% for +3dB over nominal o.p.

Differential phase: less than 0.2°.

Stability:

(a) **gain:**
 ± 0.25 dB for $\pm 10^\circ$ in temperature range.

(b) **phase:**
phase change over $\pm 10^\circ$ of temperature range of chrominance burst signals with respect to input subcarrier, less than $\pm 1.5^\circ$; with respect to each other, less than $\pm 1.0^\circ$.

(c) **relative gain:**
Chrominance/luminance change less than 0.25dB.

Dimensions:

Height	17.8cm	(7in.)
Width	48.3cm	(19in.)
Depth	40cm	(15.75in.)
Weight	15kg	(33lb)

Full details are given in TD-2-B 3370.

Aperture Corrector Type B3371

Horizontal correction is a well known method of enhancing the picture from a television camera pick-up tube, but due to the lack of suitable techniques vertical aperture correction has previously been neglected. A technique has now been evolved using fused quartz delay lines, and the B 3371 Aperture Corrector gives remarkable improvement to, for example, the Mark VII picture by both vertical and horizontal correction, benefiting viewers with either monochrome or colour receivers.

The B 3371 is rack mounted and, being fully transistorized, requires only 13.2cm (5.25in.) \times 48.0cm (19in.) of rack space. Inputs and outputs are at the rear of the unit with test points conveniently positioned on the front panel.

Data summary

Inputs

Mains: 100–125V or 200–250V, 48–65Hz.

Video: One 0.7V p-p non-composite bridging.

Sync: One 1.5 to 5V bridging.

Outputs

Video: One 0.7V p-p non-composite.

Performance

Frequency Response: H.F. ± 0.5 dB to 6MHz.

Gain: ± 3 dB adjustment on internal preset control.

Correction:

(a) Vertical, 0 to 18dB lift at half line frequency.

(b) Horizontal, 0 to 18dB lift at 5MHz.

Output Impedance: 75 Ω return loss not less than 24dB to 2T 625 line pulse and bar.

Temperature Range: -10° to +45°C.

Dimensions:

Height	13.2cm	(5.25in.)
Width	48.3cm	(19in.)
Depth	46.8cm	(18.75in.)
Weight	18.2kg	(40lb)

Full details are given in TD B 3371.