

COLOUR TRANSPARENCY SCANNER BA10/501

This page is included in the A.C.O. series as general information. A complete Technical Instruction Manual is available for the BA10/501 and is provided to all areas where a BA10/501 scanner is installed.

BA10/501 flying-spot colour transparency scanners provide R, G and B video signals from 36 mm x 24 mm colour transparencies. The slide carrier consists of a rotatable motor-driven disc which can accommodate up to 20 slides in holders which are fastened to its rim. Slides can be selected for scanning either sequentially or at random and the selection can be made either locally or from a remote control position. The selection process takes a maximum of one second and during selection the scanner output is blanked so that slide changes can be made while the output is on the air. An automatic gain control system is used to enable satisfactory signals to be obtained from a

succession of slides of widely-varying mean densities. A block diagram of the scanner is given below.

Logic circuits are used in the slide selection process; each slide position is given a binary code and the surface of the slide-carrying disc is optically encoded and viewed by a position-sensing unit. A direction-sensing circuit ensures that the slide moves to the scanning position by the shortest route (forward or reverse) and a servo loop adjusts the power fed to the motor in accordance with the magnitude of movement required. When the slide disc is stationary (e.g. between selections) it is held steady by a solenoid-operated latch. Because this latch prevents accidental movement of the disc, the slide diametrically opposite to that being scanned can be removed and replaced while the scanner is in use without the risk of disturbing the scanner output.

