

Application of instrument

The FG 3360 delivers, in addition to special signals for colour television measuring technique, all the necessary proving signals for general television servicing. Its employment range stretches to cover both monochrome and colour television.

In the following paragraphs is a short description of the employment in monochrome and colour together, followed by the special colour television adjustments. It must be noted that only a general description of alignment and measuring methods can be given here, in individual cases the recommendation of the television manufacturer must be adhered to.

4.1 Picture geometry

For simple proving of the picture geometry the circle test pattern is used. It permits in particular, visual observation of the settings of picture size, picture position and picture linearity. The circle size can be altered for the evaluation of the middle or outer picture field. Apart from the forgoing, accurate geometry adjustment also requires the use of the cross hatch pattern.

4.2 Picture definition

The beam focus can be advantageously observed by using the "Dot pattern".

4.3 Colour purity

Checking the colour purity can be expediently carried out using the "Red" colour raster. This can be changed to either "Blue" or "Green" with the changeover switch on the "Stripe generator" board inside the instrument. (See fig. 3.) If necessary the colour purity must be corrected with the deflection yoke according to the receiver manufacturers instructions.

4.4 Convergence

For convergence adjustment the cross hatch pattern is generally employed. Before setting up the convergence it is essential that the picture geometry be checked and if necessary corrected. As with several receiver types the colour killer opens when the harmonic of the line frequency falls within the capture range of the 4,43 ... MHz oscillator, it is recommended that when carrying out convergence using the cross hatch pattern, that the colour intensity control on the receiver be set to zero position to avoid colours contours.

4.5 HF section of the receiver

Insufficient vision response of the receiver can also arise. from a poor HF transmission characteristic. Possible fault causes here could be the tuner, the IF amplifier and in colour receivers also the chroma amplifier.

By observing the colour bar test pattern, an estimate can be made of the transmission quality, but in order to achieve this the HF side of the receiver must be correctly tuned (attention here to point 2.4).

A blurred presentation or abnormal picture outline means a fault in the overall response curve.

1. Delay line fault between brightness (luminance) and colour (chrominance) signals shows itself as a slight placement shift between the colour edges and the brightness steps.

Checking and alignment of the response curve is carried out with a calibrated television sweep generator (e.g. SW 3330 from Nordmende).

4.6 Chroma amplifier and colour killer

With receivers fitted with automatic colour contrast, the control ratio can be checked using the Burst amplitude control. By altering the burst amplitude, the colour saturation must alter in the contrary sense. With a low burst amplitude e.g. 10% the colour killer normally operates and switches to a monochrome picture.