The PHILCO CROSSHATCH GENERATOR, Model 5072, is designed to produce a crosshatch pattern (see figure 2) on the picture-tube screen of a television receiver. By means of this pattern the television serviceman can check and adjust the linearity of the vertical and horizontal sweeps quickly and accurately, without depending upon test charts from a television station.

By means of an adapter harness, the CROSSHATCH GENERATOR obtains the required plate power, heater power, and synchronizing voltages from the television receiver being adjusted. Harness No. 1, supplied with the GENERATOR, is for use with Philco Television Receivers, Model 48-1000 and Model 48-2500. Harnesses for other models and makes will be available in the near future. Harness No. 1 comprises four color-coded adapters, a harness cable, and a female connector.

The YELLOW adapter should be plugged into the audio-output-tube socket. It is not necessary to plug the audio-output tube into the adapter socket unless sound output from the receiver is desired. This adapter serves to take off plate and heater power for the GENERATOR.

The GREEN adapter should be plugged into the video-output-tube socket, and the video-output tube must be plugged into the adapter socket. This adapter serves to feed the GENERATOR output into the grid circuit of the video output stage.

The BLACK adapter should be plugged into the chassis receptacle for the deflection-yoke plug, and the deflection-yoke plug must be plugged into the adapter socket. This adapter is the take-off for horizontal synchronization of the GENERATOR.

The RED adapter should be plugged into the vertical-output-tube socket, and the vertical-output tube must be plugged into the adapter socket. This adapter is the take-off for vertical synchronization of the GENERATOR.

The female connector should be plugged into the rear of the CROSSHATCH GENERATOR.

USING THE CROSSHATCH GENERATOR WITH MODELS 48-1000 AND 48-2500
1. Remove rear panel from receiver.
2. Connect adapter harness to receiver and GENERATOR as shown in figure 1.
CAUTION: Dress harness cable as far as possible from high-voltage supply and the anode lead.
3. Connect receiver to power line and turn on receiver and GENERATOR. Allow receiver and GENERATOR to warm up for five minutes.

4. Check spacing of vertical and horizontal crosshatch lines on picture tube.

5. Adjust VERT. LIN. and HORIZ. LIN. controls as required. Refer to figures 3 and 4.

ADJUSTMENT OF CROSSHATCH GENERATOR

The CROSSHATCH GENERATOR is normally adjusted to produce twelve horizontal lines and sixteen vertical lines on the picture tube (see figure 2), and readjustment is seldom necessary. However, if adjustment is required, the number and position of the vertical lines can be changed by the trimmer which is accessible through the hole in the bottom of the GENERATOR. The potentiometer adjustment for the horizontal lines is accessible when the GENERATOR is removed from its cabinet.

Figure 3. Crosshatch Pattern Shows VERT. LIN. Control Requires Adjustment

Figure 4. Crosshatch Pattern Shows HORIZ. LIN. Control Requires Adjustment

Figure 5. Schematic Diagram of CROSSHATCH GENERATOR, MODEL 5572

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PART NO. AD-1037