



Proper Degaussing of the RCA-21AXP22-A Color Kinescope

This Note discusses the importance of degaussing the 21AXP22-A color kinescope during the initial set-up procedure and whenever a color-television receiver is re-oriented after initial set-up.

Detailed studies of the effects of the earth's magnetic field on color purity and neck shadow in the 21AXP22-A have demonstrated that degaussing is necessary to obtain optimum final set-up. When the 21AXP22-A is degaussed (in the presence of the earth's magnetic field), compensating poles are "set" in the magnetic parts of the tube. The magnetic fields originating from these poles compensate for more than half of the adverse effects of the earth's magnetic field. It is important, therefore, that the 21AXP22-A be degaussed in the position in which it is to be set up and operated.

The recommended procedure for degaussing the 21AXP22-A is described in Application Note AN-163 entitled "Demagnetizing the RCA-21AXP22 Color Kinescope". When the tube is degaussed by this procedure in its operating position, raster shift is decreased and field-strength requirements from the magnetic-field equalizers are reduced. As a result, best tube performance can be obtained.

When a color television receiver is re-oriented after it has been degaussed, set-up, and operated in the initial position, a change in color purity and/or white uniformity may be noted. This change occurs because the earth's magnetic field acts on the tube (i.e., on the electron beams) from a different direction in the new position. Provided the kinescope was correctly degaussed before set-up in the initial position, simple degaussing of the tube in its new position will usually correct any change in color purity and/or white uniformity. If the degaussing operation does not provide satisfactory white uniformity and purity, slight readjustments of the purifying magnet and the equalizer magnets maybe required. It is not necessary to adjust the equalizer magnets for minimum strength before degaussing the tube in this instance because the magnets were previously set during the initial set-up procedure.