



## Demagnetizing the RCA-21AXP22 Color Kinescope

This Note describes a simple "degaussing" procedure for demagnetizing the RCA-21AXP22 color kinescope whenever external magnetic fields magnetize the metal shell and internal parts sufficiently to produce localized areas of color impurity and raster distortion. It is recommended that this tube be degaussed whenever it is installed because it may become magnetized during shipment or handling. This simple degaussing procedure is also recommended whenever color purity adjustments are affected by magnetization of the metal shell.

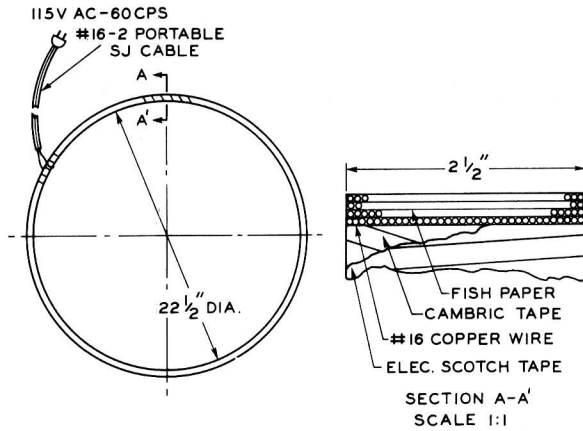
### Description of Equipment

The only special equipment required for the degaussing procedure is an insulated coil illustrated in Fig. 1. The inside diameter of this coil is large enough (22-1/2 inches) so that the tube may be passed through it. If portability is a consideration, an adequate degaussing field may also be provided by a coil having an inside diameter of 12 inches and consisting of 425 turns of #20 enameled wire. Both coils are operated from a 115-volt, 60-cycle source.

### Procedure

The recommended degaussing procedure for a 21AXP22 tube mounted in a television receiver is as follows: The energized coil is placed in front of the safety glass and moved in a circular motion in a plane parallel to the glass for about 10 seconds. Next, the coil is slowly withdrawn to a distance of at least 6 feet, and is then disconnected. If desired, the coil may be withdrawn to a distance of only 2 feet and the supply voltage then lowered gradually to zero by means of a Variac or similar device.

It is very important that the equalizer magnets be adjusted to the position which provides minimum field strength at the tube edge during the degaussing operation so that magnetic fields from these magnets will not be "set" in the metal parts of the tube.



*Materials used:*

- 1 male plug
- 40 feet of 0.010-inch fish paper 2-1/2 inches wide
- 30 feet of cambric yellow varnished tape
- 5 feet of Scotch electrical tape
- #16-2 portable, SJ cable
- 1250 feet of #16 Formex magnet wire

*Winding Procedure:*

1. Use a cylindrical plywood form having an outside diameter of 22-1/2 inches and a width of approximately 4 inches.
2. Allowing 2 inches for the start lead, layer-wind 200 turns of #16 Formex magnet wire, (approximately 4 layers, 50 turns per layer) with 0.010-inch-thick fish paper separating layers.
3. Use clear Scotch tape in several spots to prevent coil turns from loosening.
4. After the coil is wound, bring the end lead out near the start lead, allowing 2 inches for splicing, and secure.
5. Remove coil by cutting plywood form in half.
6. Cover windings with one layer of cambric yellow varnished tape, and secure ends with electric Scotch tape.
7. Splice and solder ends to #16-2 portable SJ cable.
8. Securely anchor and cover leads with electric Scotch tape.

*Fig. 1 - Cross-sectional view and construction details of degaussing coil for 21AXP22.*

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