

INSTRUCTIONS FOR CARE AND WARRANTY-ADJUSTMENT OF

RCA IMAGE ORTHICONS

The accompanying RCA Image Orthicon is a brand new, unused tube, manufactured to meet extraordinarily strict specifications exceeding even the high standards normally used in other electron tube manufacture. It is warranted against defects in workmanship, materials, and construction, and is designed to give satisfactory service when used under normal operating conditions in standard television applications.

Prior to shipment from the factory, this camera tube was inspected and carefully tested on the basis of actual television pictures produced by it, and was found to equal or exceed specification quality. However, camera tubes contain certain chemical elements which are not very stable, such as cesium. Consequently, operating performance can vary substantially with time. RCA Image Orthicons are designed to reduce the possibility of such change to a minimum. If, for any reason, this camera tube does not give satisfactory service within the warranty-adjustment period stated in the RCA Adjustment Policy for this type, a claim for adjustment may be made through your RCA distributor or direct to RCA.

SAVE THE ENCLOSED RETURN AUTHORIZATION FORMS

In presenting a claim, fill in the Service Report information and other portions of the camera tube return authorization form. Enclose the original copy with the tube at the time of return and retain a carbon copy. Be sure to give a detailed description of picture appearance and specific tube behavior that caused you to return the tube for adjustment. Only by having complete information with the tube, can every consideration be given to your complaint. Prompt adjustment will be allowed for defective tubes, subject to the terms set forth in the applicable RCA Terms and Conditions of Sale Booklet. (RCA reserves the right to repair minor defects as a means of completing adjustment.) However, if we find that the tube meets RCA specifications and delivers a good picture in standard cameras at our factory, the tube will be returned to you. In this event, we will endeavor to give you as much significant information as we can to assist you in obtaining equally good performance.

To help you judge accurately the performance of this Image Orthicon, we suggest the following:

1. Point the camera at a scene and roughly adjust alignment, focus controls, and beam and target potentials, to get a reasonably flat-shaded picture with some definition.
2. Cap the lens and use the beam exit aperture (round, bright spot on dynode surface) to accurately align beam. When alignment is correct, the spot will not rotate as beam focus is varied, but will remain centered on axis of monitor.
3. After removing cap, determine target potential necessary to just cut off picture. Then, increase target potential to 2 volts above this value.
4. Adjust Grid #3 (multiplier focus) and Grid #5 (decelerator) for best reproduction of the scene, with respect to shading.
5. Focus both optically and electronically for sharpest picture. Resolution as determined from an RETMA chart should be at least 500 lines at the center with no objectionable spots visible in the picture.
6. Adjust iris so that the highlights in scene drive image-orthicon output just over the knee of the curve. Remember that this point will vary for scenes of different light content and reflectance.

PATENT AND LICENSE NOTICE

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Other technical information regarding this tube may be obtained from your supplier or from:

RADIO CORPORATION OF AMERICA
Commercial Engineering
415 So. Fifth Street
Harrison, N. J.

Inquiries on adjustments relative to this tube should be addressed to:

ADJUSTMENT SERVICE
Tube Division
RADIO CORPORATION OF AMERICA
Lancaster, Penna



RADIO CORPORATION OF AMERICA
TUBE DIVISION

HARRISON, N. J.