

# DUMONT

*First with the Finest in Television*

## **ALIGNMENT PROCEDURE**

**for**

## **TELESET MODELS**

**RA-105B**

**SUSSEX**

**RA-108A**

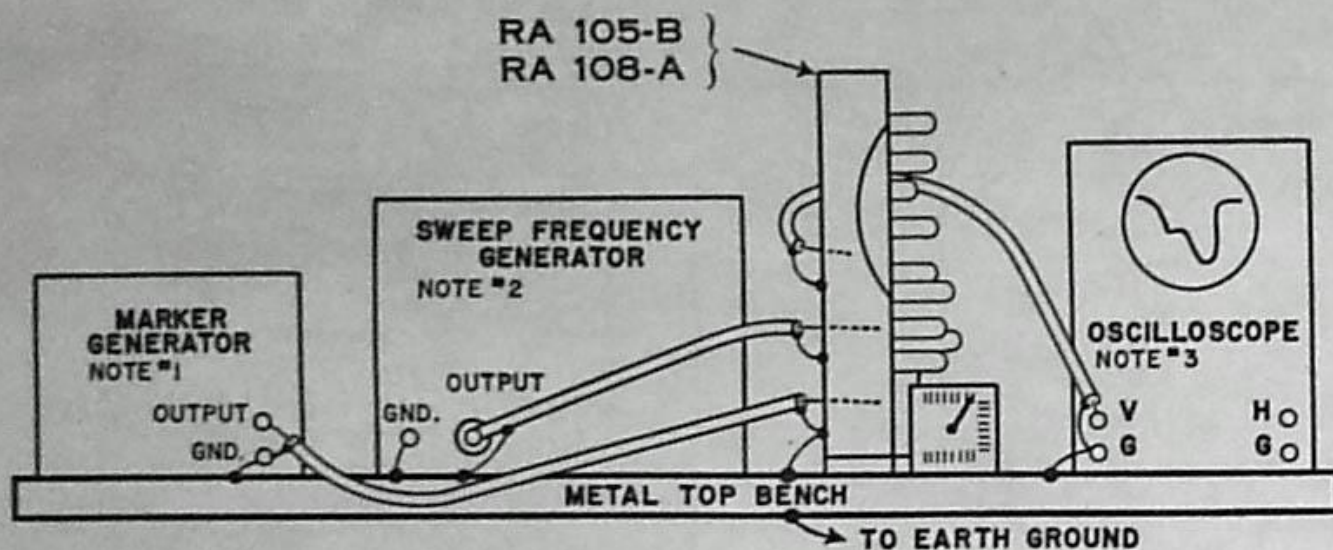
**BRADFORD  
MANSFIELD**

**ALLEN B. DU MONT LABORATORIES, INC.  
TELESET SERVICE CONTROL DEPT.  
MARKET STREET, EAST PATERSON, NEW JERSEY**

**NOT TO BE REPRODUCED WITHOUT THE CON-  
SENT OF ALLEN B. DU MONT LABORATORIES, INC.**

## ALIGNMENT SET-UP

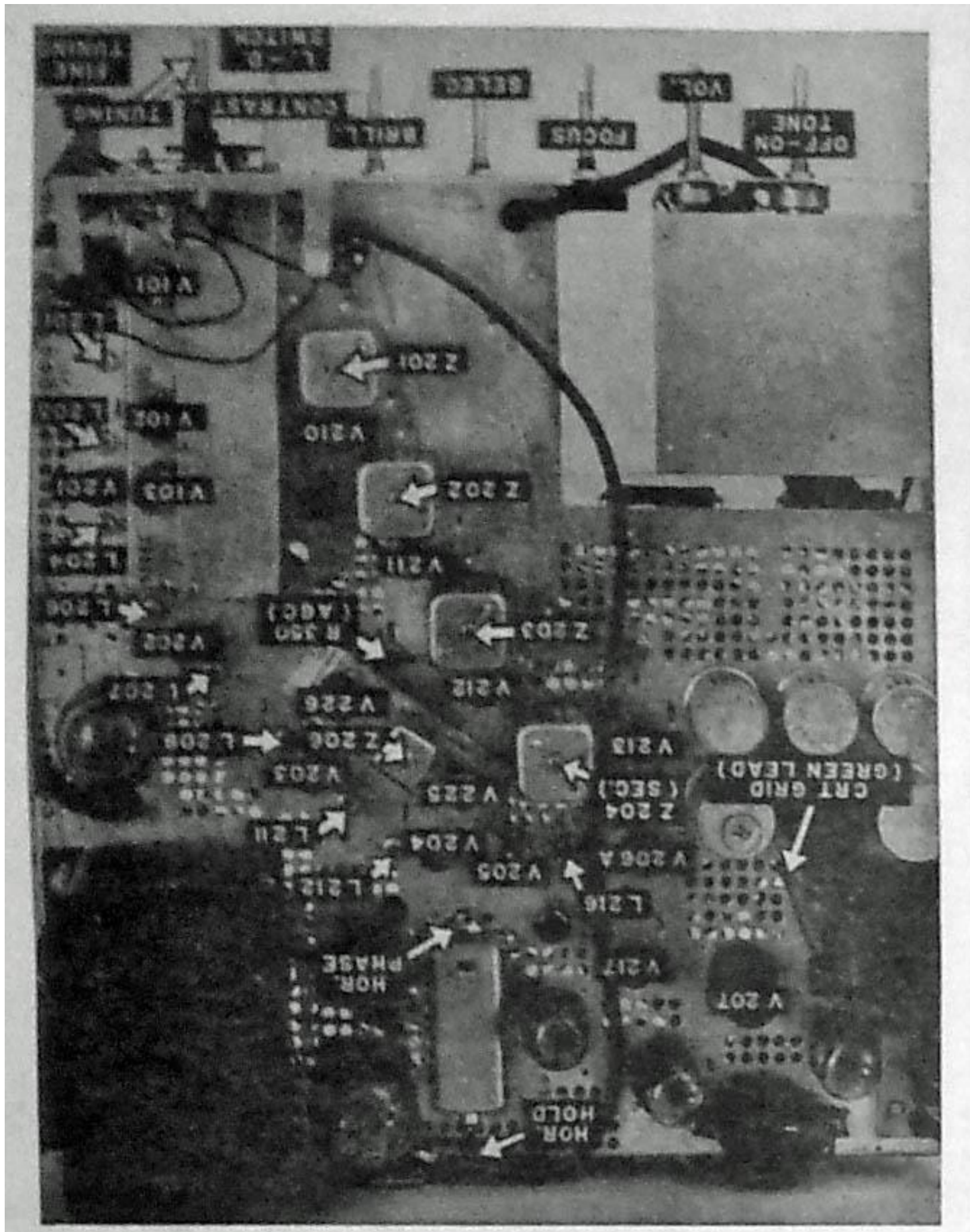
1. Keep all coax cables as short and as well shielded as possible.
2. Ground metal bench to a good earth ground.
3. To test set-up feed signal into grid of mixer thru a 100 mmf condenser. If placing hand on any chassis or adding additional grounds at any point affects waveform or if Teleset has a tendency to oscillate, grounding must be added until these effects disappear.



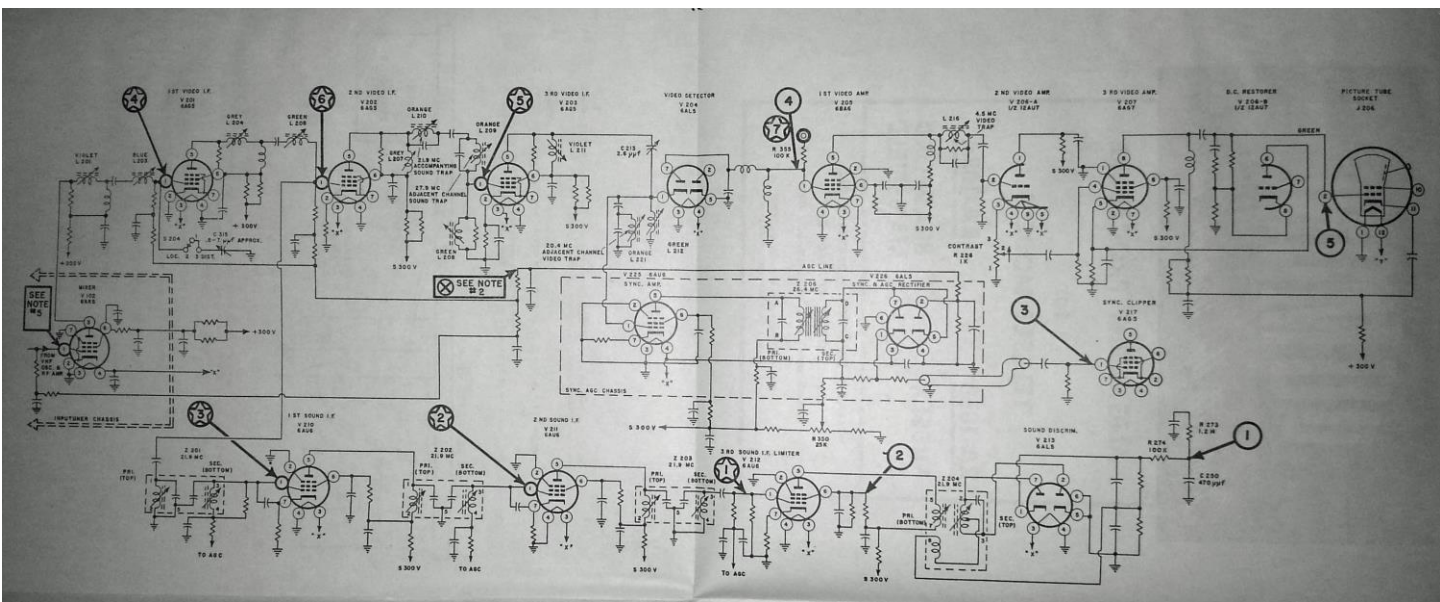
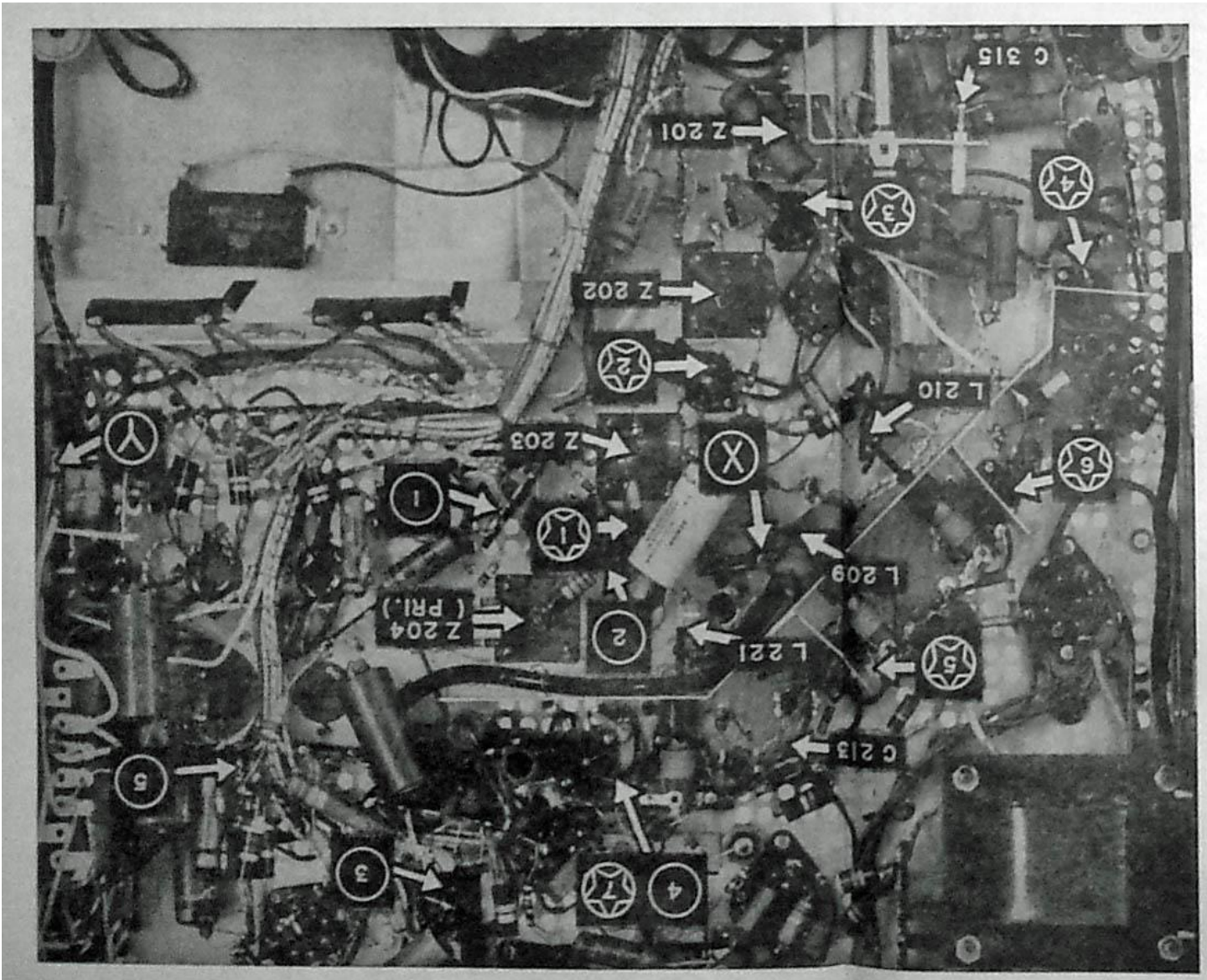
### NOTES:

1. Unmodulated and amplitude modulated RF should cover 20 to 30 mc range. Also 4.5 mc. Not necessary if marker is built into sweep frequency generator.
2. Should have center frequency range from 20 to 30 mc. Sweep should be adjustable up to 6 mc at least.
3. We recommend use of internal saw-tooth sweep. Waveforms shown were taken using this sweep. External sweep from sweep frequency generator may be used if preferred.



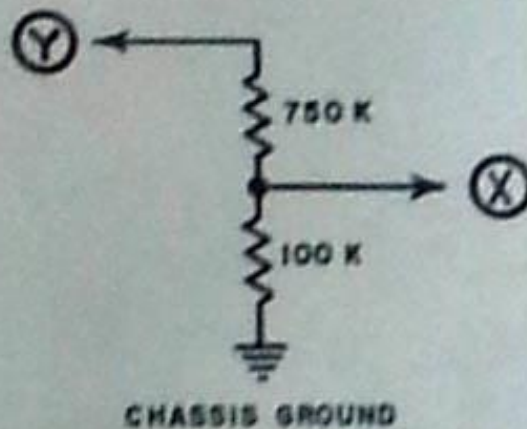




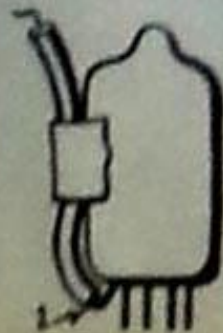


## ALIGNMENT NOTES

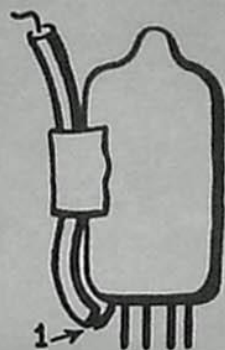
1. Du Mont Telesets are designed for TV and high-fidelity FM reception. Full bandpass characteristic in sound I.F. system is required so that full dynamic range of FM may be obtained.
2. During Video I.F. alignment fixed bias MUST be applied to the tubes operating with AGC. This bias is obtained by removing V226 (6AL5 sync-AGC rectifier) and applying -5 volts to the junction of C303 and R246 (point  $\otimes$  in photograph). A convenient method of obtaining this fixed bias voltage is shown below.



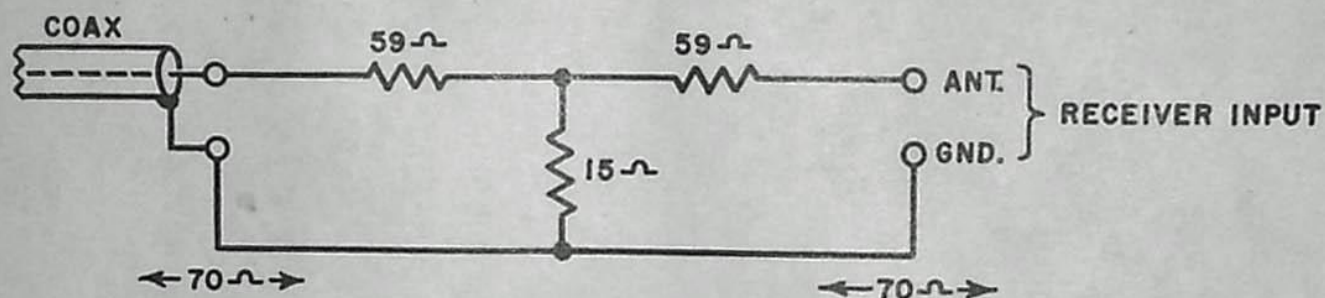
3. Undesired indentations in response curve may be caused by stages ahead of those being aligned. The removal of tubes in these stages will sometimes aid in obtaining correct curves. L212 effects left side of curve, L210 right side, and C213 effects band-width.
4. If 26.4 mc marker position is not as shown and cannot be obtained by varying L207 and L208; L209 [27.9 mc trap] may be adjusted slightly to place marker in proper position. Slugs will be nearly all the way out. L208 positions center peak, L207 effects shoulder amplitude.
5. To perform step 14, a 6AX5 adapter as shown below is required to replace V102.







6. When aligning RA-105B and RA-108A Telesets which incorporate a "local-distance" switch, place the switch in the "local" position, set C315 at about one-half maximum capacitance, and proceed with the normal alignment procedure as outlined above. After the receiver has been aligned, remove -5 volts fixed bias, place switch in "distance" position and tune in a weak test pattern. Turn down brightness control until picture is barely visible. Peak L201 and L203 for maximum picture signal. Now, place switch in "local" position, tune in normally strong signal and adjust C315 for best picture quality. If smear or trailing blacks are present in strong signal picture and cannot be removed by adjusting C315, L206 may be slightly readjusted to eliminate this condition. A weak signal may be simulated by the use of a resistance-pad attenuator connected in series with the transmission line and the receiver antenna terminal. An attenuator circuit is shown below.



7. In the procedure, reference is made to the use of a "Probe Detector." This device is merely a crystal rectifier with the necessary filter.

