

MODEL 1607

INSTALLATION INSTRUCTIONSReceiver Handling Precautions:

This television receiver is shipped complete in one carton except for the picture tube. This is shipped in a special carton and should not be unpacked until ready for installation.

UNPACKING - to unpack the receiver, tear open the carton flaps, pick the receiver up from under the bottom of the cabinet and lift it out of the shipping carton.

Setting of the Receiver:

- 1- Remove knobs.
- 2- Remove back cover.
- 3- Disconnect antenna strip and disconnect speaker.
- 4- Remove chassis mounting bolts.
- 5- Slide chassis out of cabinet.
- 6- Loosen the two picture tube cushion adjustment wing screws and slide the cushion toward the rear of the chassis. Loosen the deflection yoke adjustment - slide the yoke toward the rear of the chassis.
- 7- Loosen screws on focalizer.

Installation of Picture Tube:

The picture tube high voltage socket is a recessed metal well in the side of the bulb. The tube must be installed so that this socket is approximately on top. The final orientation of the tube will be determined by the position of the ion trap flaps. Looking at the picture tube gun structure it will be observed that the second cylinder from the base inside the glass neck is provided with two small metal flaps as shown in Figure #1. The picture tube must be installed so that when looking down on the chassis the two flaps will be seen as shown in Figure #2.

Insert the neck of the picture tube through the deflection yoke and focalizer until the base of the tube protrudes beyond the focalizer. If the tube sticks or fails to slip into place smoothly, investigate and remove the cause of the trouble. DO NOT FORCE THE TUBE. Slip the elastic tape over the bulb of the tube.

Slip the ion trap magnet on the neck of the picture tube with the arrow pointing toward the face of the tube. Connect the picture tube socket to the base. Wipe the picture tube screen surface and the cabinet front panel safety glass - clean off all dust and finger marks with a soft cloth moistened with Windex or similar cleaning agent. Install the chassis into the cabinet as far forward as possible. Replace chassis mounting bolts and tighten.

Slide the picture tube as far forward as possible. Slide the picture tube cushion firmly up against the flare of the tube and tighten the adjustment wing screws. Slide the deflection yoke as far forward as possible. Connect the high voltage lead to the picture tube high voltage socket.

The antenna and power connections should now be made. Turn the power switch to the on position, the brightness control fully clockwise.

Ion Trap Adjustment:

The ion trap rear magnet poles should be approximately over the picture tube flaps as shown in Figure #2. Starting from this position adjust the magnet by moving it forward or backward, at the same time rotating it slightly around the neck of the picture tube for brightest raster on the screen. Reduce the brightness control setting until the raster is slightly above the average brilliance. Adjust the focus (by means of a screw adjustment on the focalizer - see Figure #1,) until the line structure of the raster is clearly visible. Readjust the ion trap for maximum raster brilliance. The final touches on this adjustment should be made with the brightness control at maximum position with which good line focus can be maintained.

Deflection Yoke Adjustment

If the lines of the raster are not horizontal or squared with the picture mask, rotate the deflection yoke until this condition is obtained. Tighten yoke adjustment wing screw.

Centering Adjustment

No electrical centering controls are provided. Centering is obtained by mechanically orientating the focus coil with the wing screws as shown in Figure #1 - centering the picture on the screen by the adjustment of these screws.

Focus Adjustment:

If after making the centering adjustments in the above paragraph, a corner of the picture is shadowed, it will be necessary to loosen the focus coil wing screws (shown in Figure #1) and change the position of the focalizer to eliminate the shadow. Recenter the picture by adjustment of the centering screws. Recheck the position of the ion trap magnet to insure that maximum brilliance is obtained.

Vertical Size and Vertical Linearity Adjustments:

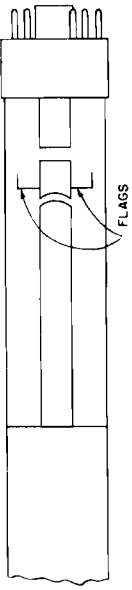
Adjust vertical size control (on the chassis rear apron) until the picture fills the mask vertically. Adjust vertical linearity on chassis rear apron until the test pattern is symmetrical from top to bottom. Adjustment of either control will require a readjustment of the other.

Width, Drive and Horizontal Linearity Adjustments:

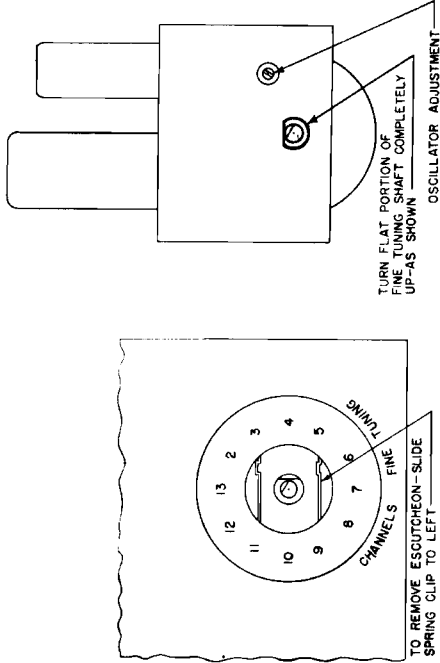
Adjust the horizontal drive (screw driver adjustment) to give a picture of proper width without undue stretch of the left side of the picture. Adjust the horizontal linearity control (on top of chassis) to provide best linearity. Adjust the width control until the picture just fills the mask.

Picture Adjustment:

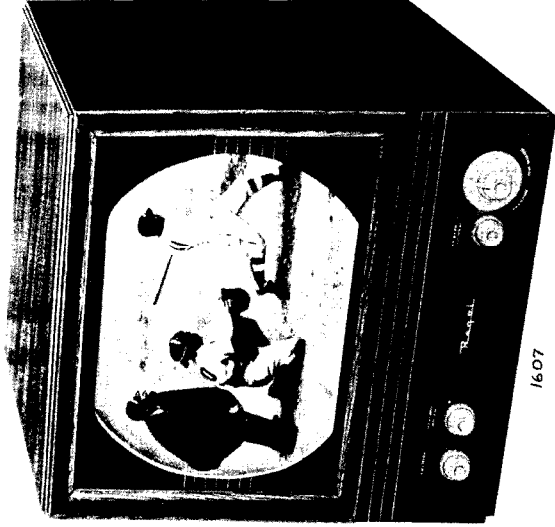
It will now be necessary to obtain a test pattern picture in order to make further adjustments. To check horizontal locking - momentarily remove the signal by switching off channel, then back.



KINESCOPE FLAGS
FIG - 2



R-F OSCILLATOR ADJUSTMENT
FIG-3



1607

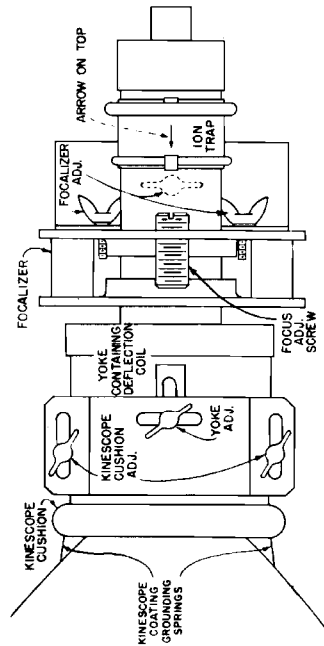
Normally, the picture should stay in sync. If it does not, re-adjust horizontal lock control on rear of chassis apron. Repeat this operation until satisfactory locking is accomplished.

In order to attain ease of picture centering, combined with good horizontal locking, the instructions given below should be followed carefully:

Set the horizontal hold control (front panel control) to the center of the locking range. At that point the picture should be fairly well centered and in sync. As the switch from channel to channel is made, if the receiver is out of sync, readjust the horizontal lock control on the rear apron of the chassis. Repeat this operation until perfect sync is obtained.

Tuner Adjustment:

Due to variations in antennas, transmission lines, and signal strengths in different locations throughout the country, it may be necessary to readjust the tuner oscillator slugs, dependent upon location, to obtain sharp picture definition. The front end has a screw type oscillator slug for each channel, but only one slug at a time is fully visible (dependent upon the channel the receiver is set to as pictured in Figure #3.) Using an insulated alignment tool, this adjustment can be made with the receiver in the cabinet, by removing the channel selector knob, the fine tuning knob, and the channel indicator plate the front end is conveniently exposed for oscillator adjustments. Once the receiver is set for the desired channel, the oscillator slug should be varied until the vertical resolution lines are sharp and clear. The slugs should not be forced and only reasonable pressure should be applied during the tuning. In cases where the slug is driven in too far and cannot be retrieved with a screw driver, the drum of the tuner should be rotated until the desired channel clip is seen. The clip can then be removed and the slug returned to its normal position.



YOKE & FOCUS ADJUSTMENTS
FIG-1

MODEL 1607

