

## G. EXTERNAL CONNECTIONS

1. CRYSTAL - This socket is provided as a means to "plug-in" any desired crystal from 3MC to 20MC for operation of the Crystal Oscillator as a marker or for calibration.
2. RF OUTPUT - The output from the attenuator is fed through this connector to the output cable.
3. BEAT DETECTOR - A jack is provided as a means of connecting headphones to hear, or connecting an oscilloscope to observe the zero beat between the crystal oscillator and the variable marker oscillator for calibration.
4. EXTERNAL MARKER - provides a connection for inserting a marker signal from an external generator through the Marker Output control and Attenuator System. Also, the connector may be used as an output for the marker generators when extremely high signal is desired.
5. HORIZONTAL CRO INPUT - the 60 cycle horizontal sweep voltage is connected by cable to the oscilloscope by means of this connector.
6. VIDEO MODULATION - A connector is provided as a means of inserting a video signal from a normal operating television receiver to the video modulator. This signal modulates the marker oscillator to "rebroadcast" on any desired channel or frequency. It may also be used to insert an audio signal, either sine or square wave, for linearity adjustment.

## OPERATION

### A. OBTAINING A RESPONSE CURVE

1. Inspect the A-C plug to be sure the 1-1/2 amp. line fuses are in place, then plug into a convenient 115 volt, 60 cycle service receptacle.
2. Two cables are provided with the TVG-2, and both are shielded leads and identical, except one has clips, and the other has spade lugs. The lead with the clips is attached to the RF OUTPUT, and the lead with the spade lugs is attached to the HORIZONTAL CRO INPUT.
3. Throw the PWR switch to the "ON" position. The red pilot light will glow indicating that the instrument is in standby operation with all heaters on. Allow the instrument to warm up for at least 10 minutes before attempting any precision work.
4. Connect the lead from the HORIZONTAL CRO INPUT to the oscilloscope Horizontal Input Terminals. Be sure that the oscilloscope Horizontal Input Control is set to "External" so that the 60 cycle sweep from the TVG-2 is used as the horizontal sweep voltage.
5. Connect the RF Output cable to the stage ahead of that for which the response curve is desired.

### CAUTION

IF CONNECTING TO A POINT WHICH HAS D.C. VOLTAGE, BE SURE TO USE AN ISOLATION CONDENSER OF APPROXIMATELY .01 Mfd. (unless another value is specified by the Manufacturer's alignment instructions) IN SERIES WITH THE OUTPUT LEAD, OTHERWISE A LOW RESISTANCE PATH WILL EXIST THROUGH THE ATTENUATOR TO GROUND.