

MODEL 10527 R-F Tuner
OSCILLATOR ALIGNMENT CHANNELS ... 2 to 13

Step No.	Connect Signal Generator To	Signal Freq. MC	Connect Heterodyne Freq. Meter To	Heterodyne Freq. MC	Connect Oscilloscope To	Connect Voltmeter To	Miscellaneous Comments and Instructions	Adjust	Refer To
1	Antenna Terminals	59.75	Loosely couple to R-F coil	81	Not Used	June R21 & R28 Point D (See note below)	Fine tuning centered for all channels on Chan. 2	S-2 for zero on voltmeter.	Fig. 1
2	"	65.75	"	87	"	"	Same as above Receiver on Chan. 3	S-3 for zero on voltmeter	"
3	"	71.75	"	93	"	"	Same as above Receiver on Chan. 4	S-4 for zero on voltmeter	"
4	"	81.75	"	103	"	"	Same as above Receiver on Chan. 5	S-5 for zero on voltmeter	"
5	"	87.75	"	109	"	"	Same as above Receiver on Chan. 6	S-6 for zero on voltmeter	"
6	"	179.75	"	201	"	"	Same as above Receiver on Chan. 7	S-7 for zero on voltmeter	"
7	"	185.75	"	207	"	"	Same as above Receiver on Chan. 8	S-8 for zero on voltmeter	"
8	"	191.75	"	213	"	"	Same as above Receiver on Chan. 9	S-9 for zero on voltmeter	"
9	"	197.75	"	219	"	"	Same as above Receiver on Chan. 10	S-10 for zero on voltmeter	"
10	"	203.75	"	225	"	"	Same as above Receiver on Chan. 11	S-11 for zero on voltmeter	"
11	"	209.75	"	231	"	"	Same as above Receiver on Chan. 12	S-12 for zero on voltmeter	"
12	"	251.75	"	237	"	"	Same as above Receiver on Chan. 13	S-13 for zero on voltmeter	"

*NOTE: This point (Point D) may be found on the complete Schematic Diagram of all Packard-Bell Television receivers.

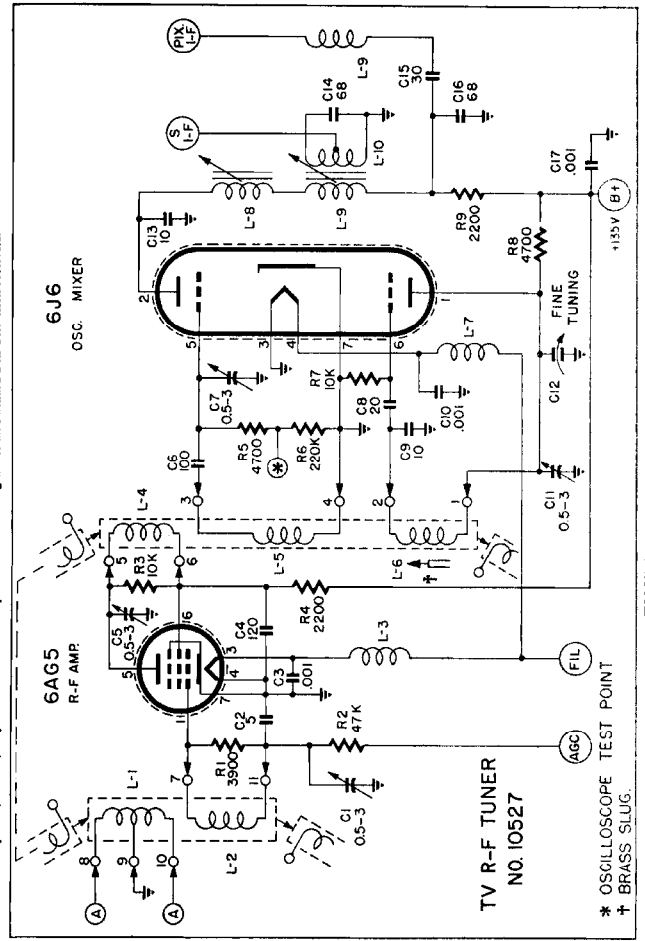


FIGURE 2 - SCHEMATIC DIAGRAM

- Oscillator Alignment:**
1. Turn Selector Switch to channel 12.
 2. Connect signal generator (modulated) to one antenna terminal and ground.
 3. Connect vacuum tube voltmeter to audio output on main chassis.
 4. Adjust S-15 for zero reading on VTVM between a positive and negative peak.
- I-F and Trap Alignment:**
1. Connect vacuum tube voltmeter in series with a 10,000 ohm resistor to 2nd detector video output on main chassis.
 2. Remove tube shield from 6J6 on tuner.
 3. Capacity couple AM signal generator to 6J6 by slipping tight fitting ungrounded shield over 6J6. Connect signal generator to ungrounded shield.
 - *4. Set frequency on signal generator to 21.25 MC and tune S-1 for minimum voltage on VTVM.
 - *5. Set frequency on signal generator to 21.8 MC and tune S-14 for maximum voltage on VTVM.
- *NOTE: Use high output on signal generator at 21.25 MC and low output on 21.8 MC.

For identification purposes, listed below are the distinct features of each tuner:

- 10520 - Wafer Switch Type
- 10523 - Capacity Inductance Type
- 10527 - Turret Type

In early production runs the tuner unit was installed in the main chassis with the AGC in the circuit. However, more recently the AGC lead is grounded. The AGC lead is color coded green with a white tracer.

ALIGNMENT PROCEDURE

The alignment procedure as herein outlined is that of the R-F Tuner only. For complete alignment instructions, refer to the Service Instructions for whatever model is being serviced.

Trimmers 15, 16, 17 & 18 are pre-adjusted at the factory. Experience has proven that no field adjustments should be necessary in their case. However, should the occasion demand, the following is the correct procedure for adjusting them:

- R-F and Mixer Alignment:**
1. Set the Station Selector Switch to Channel 12.
 2. Connect oscilloscope to oscilloscope test point (See Figure 1, Trimmer location).
 3. Set bias to 1.5 volts. * Set Fine Tuning Control at approximate midpoint of its tuning range.
 4. Feed sweep generator into antenna terminals, sweeping channel 12.
 5. Adjust S-16, S-17 & S-18 for flat top response curve. Check markers on all channels; they should fall in automatically on all channels.
- *NOTE: This step may be accomplished by unsoldering the AGC lead from ground (if grounded) and connecting a 1.5 volt supply. (1.5 volt battery may be used.)

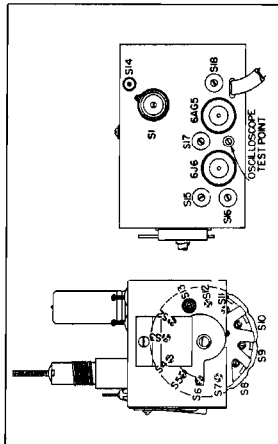


FIGURE 1 - TRIMMER LOCATION

- S-1 - I-F Adjustment, 21.25 MC (Sound) (L-8 on Schematic Diagram)
- S-2 - Oscillator Adjustment, Channel 2
- S-3 - " " Channel 3
- S-4 - " " Channel 4
- S-5 - " " Channel 5
- S-6 - " " Channel 6
- S-7 - " " Channel 7
- S-8 - " " Channel 8
- S-9 - " " Channel 9
- S-10 - " " Channel 10
- S-11 - " " Channel 11
- S-12 - " " Channel 12
- S-13 - " " Channel 13
- S-14 - I-F Adjustment, 21.8 MC (Picture) (L-9 on Schematic Diagram)
- S-15 - Oscillator Adjustment (C-11 on Schematic Diagram)
- S-16 - Mixer Adjustment (C-7 on Schematic Diagram)
- S-17 - R-F Adjustment (C-5 on Schematic Diagram)
- S-18 - Antenna Adjustment (C-1 on Schematic Diagram)