

Alignment of Picture and Sound: (With Station Signals)

1. Before attempting alignment of the TELEKIT be sure that your antenna lead-in is connected.
2. Check with your local television station to find out what hours during the day the static test pattern and tone signal is being transmitted.
3. Proceed to Align Receiver as follows:

- (a) Turn set off, connect the .1 Mfd condenser to one of the earphone leads. Leave the other lead of the condenser open. Attach an alligator or similar clip to the other earphone lead and a clip to the open lead of the condenser. Clip the earphone lead to the chassis and clip the condenser lead to the antenna selector. Turn on set. The antenna selector to the number of your local television station. Turn on set. Rotate the tuning knob until you receive a signal when it comes through. Be sure that volume and contrast controls are at full clockwise setting.
- (b) Allow a minute for full warm-up. Rotate fine tuning condenser shaft and listen for buzz in earphones. If buzz gets too loud or blocks out reduce contrast control setting slightly. Keep brightness adjusted about half-way.
- (c) If no buzz is heard on this channel position of tuner, try same procedure on the channels above and channel below the channel number of your local station. If the signal is heard there then it indicates that your I. F. frequency is correct. If the signal is not heard on any of the channels, the dipole is negative. If everything appears normal but still no buzz then check circuit wiring and refer to the service notes in the Technical Section.
- (d) If buzz is heard picture content should appear in the raster but probably will be streaking or jumping. Remove earphone from set. To correct picture content, rotate the trimmer condenser until the horizontal streaking or horizontal streaking of the picture elements then adjust horizontal control until a single stationary picture is observed. If more than one picture is observed then the horizontal hold control is set at the wrong point. Note that the width control has a bearing on the hold control and it is generally necessary to adjust both of these controls in order to get a single stationary picture initially on a new receiver. If unsuccessful in getting a single stationary picture, check the trimmer condenser. It is sometimes necessary to adjust the trimmer condenser which is connected to lug #1 of socket W. Turn clockwise until plates are fully meshed then back off in a counterclockwise direction one full turn of the screw. This trimmer controls the pulses which lock-in the pictures horizontally. Normally this trimmer should be tight. For all difficulties encountered refer to service notes.
- (e) After one picture is secured then rotate the tuning control in order to bring in the sound. Remove earphone clip from set and locate the second sound I. F. coil. This is coil in hole #12. Rotate slug until sound is heard in speaker. Adjust for maximum volume. Adjust slug on top of discriminator can for maximum volume. Adjust slug which is mounted in the discriminator can for best quality of sound with least incidental noise. For all difficulties encountered, refer to the technical section for service notes.

Align Receiver as follows:

- (a) Turn set off, connect the .1 Mfd condenser to one of the earphone leads. Leave the other lead of the condenser open. Attach an alligator or similar clip to the other earphone lead and a clip to the open lead of the condenser. Clip the earphone lead to the chassis and clip the condenser lead to the antenna selector. Turn on set. The antenna selector to the number of your local television station. Turn on set. Rotate the tuning knob until you receive a signal when it comes through. Be sure that volume and contrast controls are at full clockwise setting.
- (b) Allow a minute for full warm-up. Rotate fine tuning condenser shaft and listen for buzz in earphones. If buzz gets too loud or blocks out reduce contrast control setting slightly. Keep brightness adjusted about half-way.
- (c) If no buzz is heard on this channel position of tuner, try same procedure on the channels above and channel below the channel number of your local station. If the signal is heard there then it indicates that your I. F. frequency is correct. If the signal is not heard on any of the channels, the dipole is negative. If everything appears normal but still no buzz then check circuit wiring and refer to the service notes in the Technical Section.
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- (e) After one picture is secured then rotate the tuning control in order to bring in the sound. Remove earphone clip from set and locate the second sound I. F. coil. This is coil in hole #12. Rotate slug until sound is heard in speaker. Adjust for maximum volume. Adjust slug on top of discriminator can for maximum volume. Adjust slug which is mounted in the discriminator can for best quality of sound with least incidental noise. For all difficulties encountered, refer to the technical section for service notes.

(f) A simple and effective means of aligning the picture I. F. coils is by the measuring of the brass tuning shafts from chassis to tip with a ruler. The TELEKIT is properly aligned when the measurements are as follows:

Coil	Inches
Socket 27 (second video)	3/4
Socket 12 (second sound)	3/4
Socket 34 (third video)	7/8
Socket 23 (sound trap under chassis)	1 1/2 (all way in)
Top of Discriminator	5/8
Bottom of Discriminator	5/8

This should provide pictures and sound of excellent quality. The fine tuning control will enable you to center the sound with the picture. For alignment of the picture and sound, refer to the service notes. Alignment of picture with instruments in technical section. If sound and picture are not correct when picture and sound are coming in together turn out sound trap slug (hole #23) until they disappear.

(g) After all adjustments have been made on the I. F. coils, they should be locked in place. An important note: After the set is to be moved about much, as vibration will cause the slugs in the coils to change position.

- (a) This television receiver will perform best with a television antenna kit and a 300 Ohm lead-in line. The antenna should be purchased from your local radio or electronics store. A single dipole kit or a folded dipole kit may be used. For suburban use, a multi-element antenna kit should be used. Antenna installations should be of sufficient height as to clear any "line of sight" obstacles between the transmitter and receiver. In some remote instances a "tower" may have to be used to secure satisfactory reception.
- (b) Always locate your television receiver in a part of the room where no direct sunlight or window light falls on the screen. After set is mounted in cabinet, it should be placed in its permanent place and should not be moved about. Always be sure to turn off your set when not in use. This will extend the life of your picture tube.

TECHNICAL SECTION FOR 7B TELEKIT

The following is a list of possible failures and an indication of procedure for their correction:

Symptom	Possible Cause	Remedy
1. No raster	(a) High voltage oscillator inoperative.	(a) See notes on checking high voltage
	(b) Leaking or shorted horizontal or vertical high oscillator tube.	(b) Replace defective condensers.
	(c) Bad 2016 tube or bad oscillator tube.	(c) Replace faulty tubes.
	(d) Short to ground in high voltage circuit.	(d) Find and correct short.
	(e) Open peaking coil in plate circuit.	(e) Replace peaking coil.
	(f) Open filament in picture tube.	(f) Replace tube.
	(g) Picture tube socket incorrectly wired.	(g) Recheck and rewired.
2. Poor focus	(a) Incorrect value of resistors in the high voltage divider.	(a) Check all resistors for high voltage circuit.
	(b) Vertical output tube defective.	(b) Replace faulty tube.
	(c) Defective H.V. oscillator tube.	(c) Replace tube.
	(d) Defective focus control.	(d) Replace control.
3. Picture cannot be centered with contrast control. (see Fig. #35 and #36)	(a) Leaking H.V. horizontal and vertical coupling condensers.	(a) Replace faulty condensers.
	(b) Wires leading to picture tube are requested against the chassis.	(b) Dress wires.
	(c) Faulty centering controls.	(c) Change controls.
	(d) Insufficient filtering on grid input to vertical deflection coil.	(d) Increase value of grid condenser to .002 Mfd. replace .001 Mfd. coupling capacitor.
	(e) Leaking condenser between separator and sweep oscillators.	(e) Check with voltage chart.
	(f) Wrong voltage on plate of sync separator tube.	(f) Replace tube.
	(g) Bad separator tube.	(g) Replace tube.
	(h) Bad separator tube.	(h) Check value of resistors in plate circuit of sync separator tube.
	(i) Trimmer on input of horizontal oscillator at wrong setting.	(i) Readjust trimmer.
	(j) Leaking coupling condensers in the horizontal sweep circuit.	(j) Replace condensers.
	(k) Bad horizontal oscillator tube.	(k) Replace tube.
	(l) Bad solder joint anywhere in set or antenna.	(l) Locate and resolder.
	(m) Resistor in this by wire in speaker.	(m) Repair or replace.
	(n) Contrast control set too high for strong station.	(n) Reduce setting of contrast control.
	(o) Microphonic tube anywhere in set. (indications are the same as bad solder joint)	(o) Locate faulty tube and replace.
4. Hum or ripple on screen. (see Figures #7 & #54.)	(a) Open filter condenser in low voltage circuit.	(a) Repair or replace.
	(b) By #14 and #1, 2 picture tube wires being reversed.	(b) Check picture tube wires and correct.

8. When picture is flurry or leaking detail, (see Figures #25 & #33).
 - (a) I. F. coils peaked too close frequency causing losses in high frequencies.
 - (b) High tuned bypass capacitor in plate or screen circuits of video I. F. tubes.
 - (c) Open peaking coil in video amplifier circuit.
 - (d) Switch in TELEKIT tuner or tuning control in wrong position.
 - (e) Wrong value resistor in plate, screen or grid circuits in video I. F. or amplifier circuits.
 - (f) Defective video I. F. tubes.
 - (g) Focus picture until the picture is normal. If not focus due to defective parts in high voltage circuits.
9. Raster of light bands after appearing for a few seconds.
 - (a) Bad 68K7 second video tube.
 - (b) Open peaking coil in plate circuit of 68K7 second video tube.
 - (c) Off value 100 Mfg. timing condenser advanced too far.
 - (d) Width control advanced too far.
 - (e) Replace condenser.
 - (f) Readjust with control.
11. Picture non-linear horizontally.
 - (a) Trimmer condenser in horizontal circuit incorrectly adjusted.
 - (b) Horizontal output tube has unbalanced triodes.
 - (c) Switch horizontal oscillator tube with horizontal amplifier.
 - (d) Resolder or change.
 - (e) Check high voltage oscillator and rectifier circuit.
 - (f) Change control.
12. Picture is too large (turn over line of the picture) cannot be sufficiently reduced.
 - (a) 100 Mfg horizontal timing condenser.
 - (b) High voltage too low.
 - (c) Defective size control.
 - (d) Plate to cathode voltage horizontal output tube too high.
 - (e) Horizontal timing condenser (100 Mfg) too high in value.
 - (f) Abnormal high voltage.
13. Picture is too small. (see Figures #35 & #37).
 - (a) Width control off value or misadjusted.
 - (b) Off value parts in horizontal sweep circuits.
 - (c) Check all parts.

- (a) Decouple the plate resistors of the horizontal amplifier from the Vch & 5000 a 10 Mfg. 150 Volt condenser to ground.
- (b) Resign I. F. coils.
- (c) Realign.
- (d) Check resistors.
- (e) Check and resolder.
- (f) Check and change.

- (a) Low percentage power supply ripple being amplified in the horizontal amplifier circuit.
- (b) Resign I. F. coils.
- (c) Realign.
- (d) Check resistors.
- (e) Check and resolder.
- (f) Check and change.

- (a) Oscillation or inter-ference in video I. F. coils.
- (b) Resign I. F. coils.
- (c) Realign.
- (d) Check resistors.
- (e) Check and resolder.
- (f) Check and change.

- (a) I. F. coils peaked too close frequency causing losses in high frequencies.
- (b) High tuned bypass capacitor in plate or screen circuits of video I. F. tubes.
- (c) Open peaking coil in video amplifier circuit.
- (d) Switch in TELEKIT tuner or tuning control in wrong position.
- (e) Wrong value resistor in plate, screen or grid circuits in video I. F. or amplifier circuits.
- (f) Defective video I. F. tubes.
- (g) Focus picture until the picture is normal. If not focus due to defective parts in high voltage circuits.

- (a) Red 68K7 second video tube.
- (b) Open peaking coil in plate circuit of 68K7 second video tube.
- (c) Off value 100 Mfg. timing condenser advanced too far.
- (d) Width control advanced too far.
- (e) Replace condenser.
- (f) Readjust with control.

- (a) Trimmer condenser in horizontal circuit incorrectly adjusted.
- (b) Horizontal output tube has unbalanced triodes.
- (c) Switch horizontal oscillator tube with horizontal amplifier.
- (d) Resolder or change.
- (e) Check high voltage oscillator and rectifier circuit.
- (f) Change control.

- (a) 100 Mfg horizontal timing condenser.
- (b) High voltage too low.
- (c) Defective size control.
- (d) Plate to cathode voltage horizontal output tube too high.
- (e) Horizontal timing condenser (100 Mfg) too high in value.
- (f) Abnormal high voltage.

- (a) Width control off value or misadjusted.
- (b) Off value parts in horizontal sweep circuits.
- (c) Check all parts.

ALIGNMENT OF 7B TELEKIT WITH INSTRUCTIONS

We have found through experience that it is relatively easy to align the video stages to get a preliminary picture as the video I.F. system is sufficiently broad to pass some signal at almost any setting.

It is, however, more difficult to adjust the sound channel because these circuits are sharply tuned. We, therefore, advise that a signal generator be used for this purpose. Our sound channel will be tuned to exactly 21.25 Mc. To simplify this adjustment it is recommended that the following procedure be used. Signal can be observed with either the speaker or output meter.

1. Tune signal generator to 21.25 Mc. (Using a 400 cycle note or tone).
2. Connect hot lead of generator through a .005 Mfd. condenser to grid of second sound I. F. tube (#1 pin). Connect ground lead to chassis. Turn volume control to full clockwise setting. Turn on set and allow a one minute warmup period.
3. Tune primary of P. M. Transformer, which is the upper slug, for maximum sound in speaker. If too loud reduce generator output.
4. Move generator lead with condenser to grid of first sound I. F. tube. Adjust slug which controls tuning of the sound I. F. coil for maximum intensity of signal.
5. Adjust slug which controls tuning of the sound I. F. coil for maximum intensity of signal.
6. Tune secondary of P. M. Transformer by means of the lower slug of discriminator mounted in the chassis. Turn volume control to maximum. You will notice in making this adjustment that you will get maximum signal response from loud speaker or output meter on two settings of this slug, very close together. Between these two settings there will be a null point; that is, a point that is considerably lower in intensity than on either side of this adjustment. It is this point that is desired. When this is found the operation is completed. Notice the signal will not completely disappear with this adjustment if the volume control is turned on full. This completes the sound adjustment.
7. Connect signal lead of generator through the .005 Mfd. condenser to the grid lug (#1) of the first video I. F. tube (tube D). Clip the ground lead of the generator to chassis at base of tube D. Advance contrast control to maximum setting. Clip earphone lead through a .01 Mfd. to lug #5 of video output tube (tube M). Clip other earphone lead to chassis. Turn volume control to maximum. Adjust P. M. condenser can be connected to the same points in lieu of earphones.
8. Keeping the signal generator set at 21.25 Mc. proceed to adjust cathode sound trap (hole #23). Adjust for minimum signal output. Keep signal generator attenuator low for all I. F. adjustments but do not reduce contrast control setting. Also keep signal generator and phone connected at same points throughout video I. F. alignment.
9. Set signal generator to 24.5 Mc. Adjust fourth video I. F. coil (hole #11) for maximum output at that frequency. Note that on these adjustments the coil should go through the desired points. Be sure that you can go through these points to be certain that the coils are in the correct frequency range. Then adjust to maximum or minimum as specified.

(See service note on vertical non-linearity).
 Figure 11
 Figure 12
 Figure 14
 Figure 16
 Figure 18
 Figure 20
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 Figure 96
 Figure 98
 Figure 100

- (a) Station selector on wrong channel.
- (b) Off value part in video amplifier or open peaking coil.
- (c) I.F. out of alignment.
- (d) Leaking coupling condenser in video amplifier.
- (e) Open plate or screen bypass in video I.F. circuit.
- (f) Defective antenna or lead in connection.
- (g) Defective antenna or lead in connection.
- (h) Defective antenna or lead in connection.
- (i) Defective antenna or lead in connection.
- (j) Defective antenna or lead in connection.
- (k) Defective antenna or lead in connection.
- (l) Defective antenna or lead in connection.
- (m) Defective antenna or lead in connection.
- (n) Defective antenna or lead in connection.
- (o) Defective antenna or lead in connection.
- (p) Defective antenna or lead in connection.
- (q) Defective antenna or lead in connection.
- (r) Defective antenna or lead in connection.
- (s) Defective antenna or lead in connection.
- (t) Defective antenna or lead in connection.
- (u) Defective antenna or lead in connection.
- (v) Defective antenna or lead in connection.
- (w) Defective antenna or lead in connection.
- (x) Defective antenna or lead in connection.
- (y) Defective antenna or lead in connection.
- (z) Defective antenna or lead in connection.

Checking Horizontal Oscillator and High Voltage Circuits.

1. Equipment necessary:
 1 neon test lamp (readily obtainable - 59¢ variety)
 1 20,000 ohm per volt meter (with 5,000 volt D.C. scale)
2. Remove cover from high voltage circuit.
3. The neon lamp will be used to check the presence or absence of high A.C. voltage. The lamp will glow because of the high frequency radiation emanating from the coil. It is only necessary to hold lamp (glass end, not leads) within the proximity of the coil or plate cap of the 13S07/8016 tube to detect whether or not the circuit is functioning properly.
4. If the neon light does not glow it is safe to assume that the oscillator is not working and that no high voltage will be present.
5. First study the circuit diagram and then retrace all wiring in the oscillator and high voltage rectifier and bleeder circuits. If everything appears normal, turn set on and check all voltages at the pins of the 806 tube socket. If voltages are as indicated on the voltage chart it is safe to assume that the circuit is oscillating. If the voltages are not as the voltage chart indicates then the wiring should be checked. If the voltages are correct but the picture quality and check settings are poor, it is still not oscillating then take the following resistance readings on the coil with power off.

Blue to Yellow Wire (Primary)	Resistance 5 ohms
Yellow to Cap Connector (Secondary)	1000 ohms
Filament	Short

If the readings are not as above then it indicates a faulty coil. If you notice that one of the fine (litz) wires has broken away from one of the terminals then you must clean the end with fine sandpaper using extreme caution as litz wire is composed of very delicate strands which break easily. After cleaning you must tin the cleaned end of the litz wire before resoldering. If the break is too far from the terminal then the end can be soldered to a piece of ordinary hookup wire which in turn will reach the terminal. Turn set on once more and check with neon lamp.

6. If circuit still refuses to oscillate then look for:
 - (a) Shorted .001 Mfd. condenser across primary.
 - (b) Shorted .05 Mfd. condenser between low side of primary and cathode of 806 tube.
 - (c) Poor ground on the grid of cathode resistors.
 - (d) Poor joint on feed back ring.
7. If circuit is oscillating but no high voltage is present then look for:
 - (a) Open filament in 13J/8016 tube.
 - (b) Shorted high voltage filter condenser.
 - (c) A resistance reading between top of high voltage filter condenser (output input) and ground, of less than 20 megohms, which will indicate a shorted condenser. This can be traced to grease or dirt on the control insulator. Clean with alcohol. High voltage coupling condenser, or a grounded filament winding which supplies the cathode ray tube. Cold checks with ohmmeter around the bleeder circuit will reveal the trouble.
8. If high voltage still does not appear then disconnect the picture tube socket from the picture tube and turn set on once again. If normal then the picture tube can be suspected of being defective.
9. With the above step-by-step procedure in testing the oscillator and high voltage circuits the trouble underlying the failure should quickly be revealed.
10. The high voltage case and the cathode ray tube collar both must be in place before satisfactory raster, free from interference, can be obtained.

Figure 11
 Figure 12
 Figure 14
 Figure 16
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 Figure 100

- (a) Check and replace tube.
- (b) Check plate resistors.
- (c) Locate and replace.
- (d) Check and replace.
- (e) Reduce resistor from 5,000 ohms 1 watt to 2,000 ohms 1 watt.
- (f) Realign.
- (g) Change control.
- (h) Realign.
- (i) Adjust to correct positions.
- (j) A more sensitive antenna or a booster required.
- (k) Locate and correct.
- (l) Check all parts.
- (m) Replace.
- (n) Replace.
- (o) Replace.
- (p) Check and replace.
- (q) Replace.
- (r) Voltage readings will help locate troubles.
- (s) Replace.
- (t) Replace.
- (u) Correct or replace.
- (v) Replace.
- (w) Correct or replace.
- (x) Correct or replace.
- (y) Correct or replace.
- (z) Correct or replace.

Remedies for Indicated Test Chart Faults

15. Picture too black. (or too much contrast)
16. Sight and sound not together.
17. Picture crowded at top or bottom or both. (vertical non-linearity)
18. Straight horizontal line instead of raster.
19. Straight vertical line instead of raster.
20. Picture cannot be centered. (see figures #36 and #50).
21. Picture cannot be centered.
22. Picture cannot be centered.
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99. Picture cannot be centered.
100. Picture cannot be centered.

MODEL 7B

TECHNICAL SECTION FOR 7B TELEKIT (Cont'd)

Alignment of 7B Telekit with Instruments (Cont'd)

10. Set signal generator to 26 Mc. Adjust third video I. F. coil for maximum output at that frequency. If signal becomes too loud reduce generator output.
11. Set signal generator at 23.9 Mc. Adjust second video coil for maximum output at that frequency. If signal becomes too loud reduce generator output.
12. The first video coil (mixer output) is in the Telekit Tuner. This has been adjusted at the factory to the frequency of 22.8 Mc. The sound take-off coil is also on the tuner and it has been prealigned to 21.25 Mc. at the factory. The sound coil adjustment is on the top of the large coil and the video adjustment is on the underside of the coil. Do not make any adjustments to this coil.
13. The above adjustments will produce a broad band frequency response of 4.5 Mc. which will insure pictures of high definition and sound of excellent clarity. If sweep generator and oscilloscope data is required it can be secured by written request.

VOLTAGE ANALYSIS

The voltage chart is provided to assist TELEKIT builders in locating and isolating defective parts, tubes and etc. It should be remembered that the chart was made under certain conditions. These conditions must be duplicated if identical results are to be obtained. The conditions are that all controls must be in counter clockwise position. The line voltage at which the readings were taken was 105 volts at 60 cycles. The meter used was a 20,000 ohm per volt meter.

However it is not necessary for the kit builder to be concerned if his line voltage is higher or lower than the test chart condition. All he must remember is that if his line voltage is higher his readings will be higher and if lower his readings will be lower. Also when making checks no antenna or signal source should be connected to the set.

RESISTANCE ANALYSIS

Resistance readings are also provided on the chart to aid in locating defective parts in situations where it is unsafe to apply power, for instance, where smoke or arcing is observed. Once again the controls must be in the positions shown on the chart. This chart should be your greatest aid in locating any troubles which may occur in your Telekit.

TELEKIT GUARANTEE

ELECTRO-TECHNICAL INDUSTRIES guarantees the operation of your TELEKIT but this guarantee is automatically voided if:

- (a) Acid-core solder is used anywhere in the set.
- (b) A different chassis or parts layout is used other than that provided or specified.
- (c) Wiring is not as specified.

VOLTAGE AND RESISTANCE MEASUREMENTS

FOR 7B TELEKIT
Turn all controls to the left
(Counter Clockwise)

20,000 Ohm Per Volt Meter
Line Voltage 105V AC
Measured values are from
socket pins to chassis

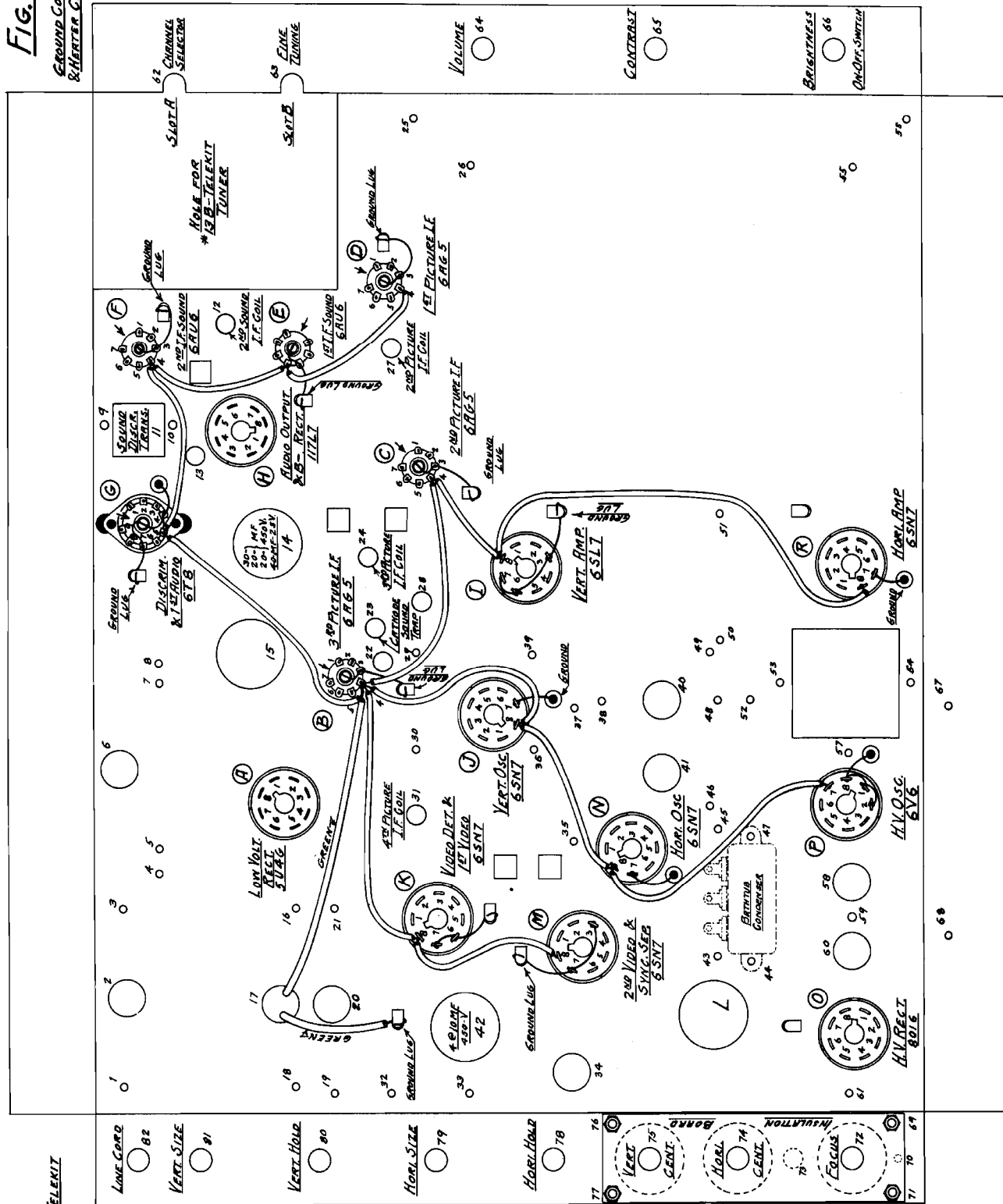
TUBE		PIN NUMBER										
		1	2	3	4	5	6	7	8	9		
6AK5	R. F. Amp.	V 200	2 2	6.3AC	0	165	63	55K	190	---	---	---
12AT7	Mixer & Oscillator	V 130a	-2 0	6.3AC	6.3AC	95a	-1.45a	0	0	---	---	---
6AU6	1st Sound I.F. Amp.	V 0	1.4 0	6.3AC	115	1.4	1.4	1.4	1.4	---	---	---
6AU6	2nd Sound I.F. Amp.	V 0	1.2 0	6.3AC	110	1.2	1.2	1.2	1.2	---	---	---
6BT8	Sound Det. & 1st Aud.	R 110K	200 0	0	80K	80K	200	---	---	---	---	---
117L7	Aud. Output & B-Rect.	V 115K	115K *	230K	0	Inf	0	10Meg	320K	---	---	---
6AG5	1st Video I.F. Amp.	R 47	Inf	48K	1	48K	440K	Inf	500	---	---	---
6AG5	2nd Video I.F. Amp.	R 18K	27 0	0	75K	75K	27	---	---	---	---	---
6AG5	3rd Video I.F. Amp.	R 125K	26 0	0	70K	70K	26	---	---	---	---	---
6SN7	Detector & 1st Vid. Amp.	V 0	.78 0	6.3AC	63	90	.78	---	---	---	---	---
6SN7	Sync. Sep. & 2nd Vid. Amp.	V -1.2	29 .7	-12	72	.7	0	6.3AC	---	---	---	---
6SL7	Vertical Amplifier	R 67K	320K	500	2.5Meg	2.5Meg	500	0	0	---	---	---
6SN7	Horizontal Oscillator	V 0	92 2.8	4	32	2.8	0	0	0	---	---	---
6SN7	Horizontal Amplifier	V 500	130K	850	140K	2.2Meg	850	0	0	---	---	---
6V6	H.V. R.F. Oscillator	R 0	0 0	340	340	0	6.3AC	0	0	---	---	---
8016	High Voltage Rectifier	V -	6200	---	---	---	6200	---	---	---	---	---
504	Low Voltage Rectifier	V -	25 Meg	---	---	---	25 Meg	---	---	---	---	---

* - This Voltage measured between pins #2 & #7 - it is the line Voltage - 105V AC.
a - With fine tuner meshed.
b - Measured on 50V Range.

MODEL 7B

FIG. #1

GROUND CONNECTIONS
& HEATER CIRCUITS



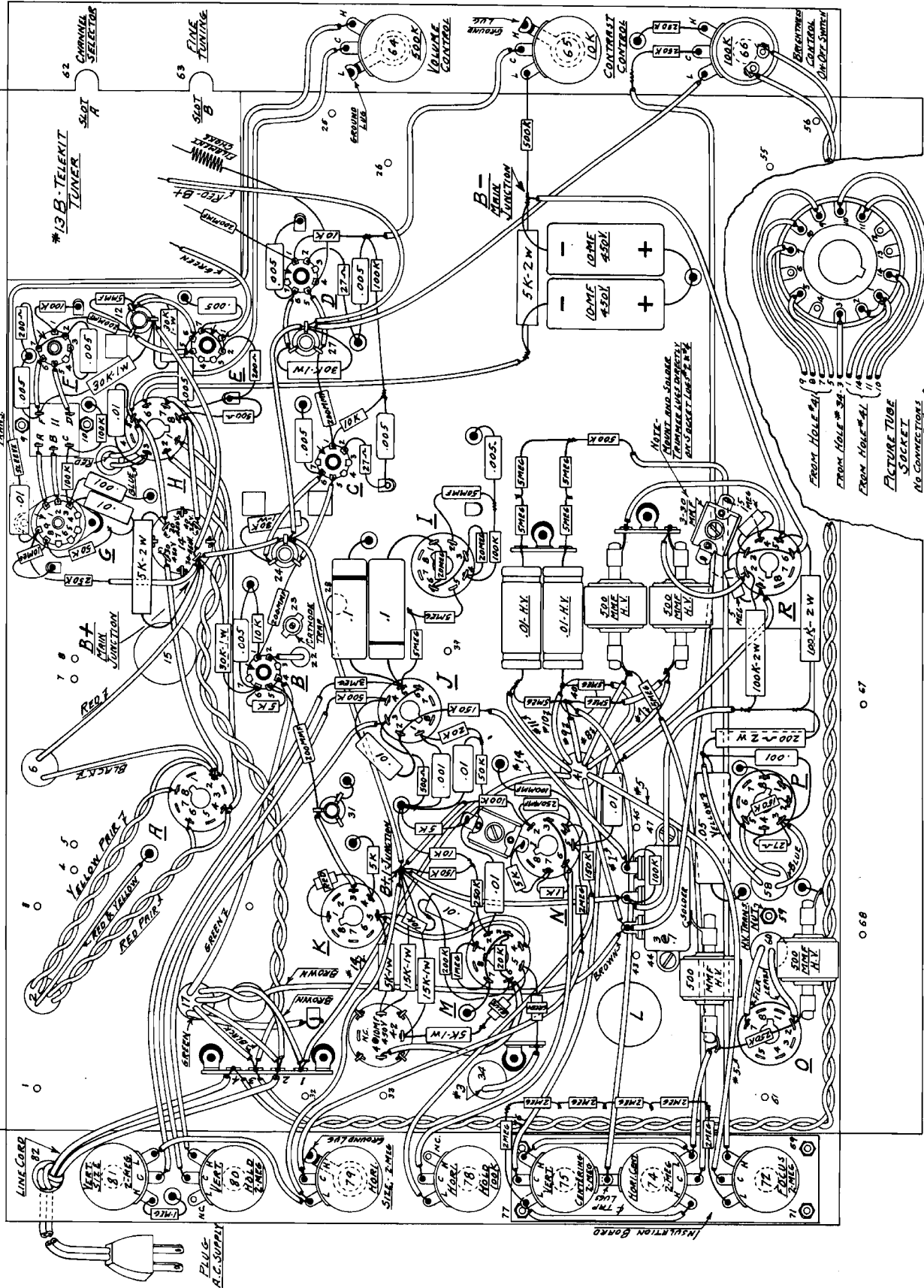
* 7B-TELEKIT

MODEL 7B

Fig. #2.

Underside View of Controls - Showing Placement of Controls and Location of Wires

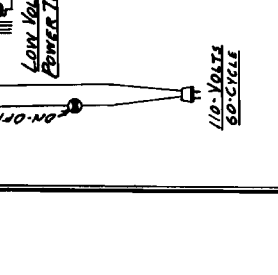
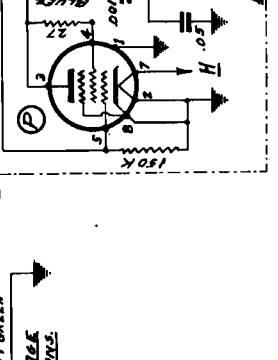
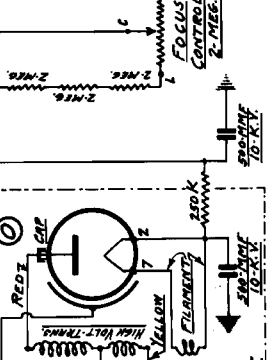
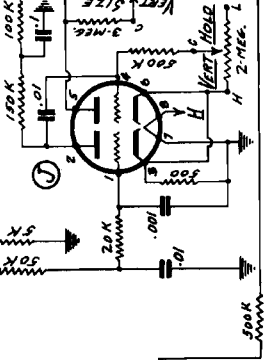
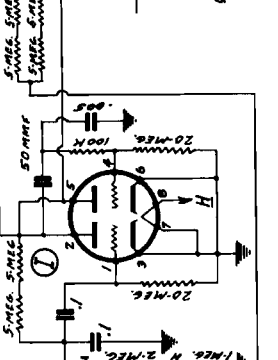
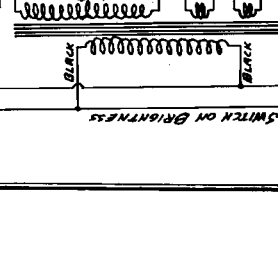
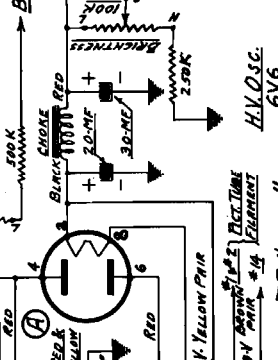
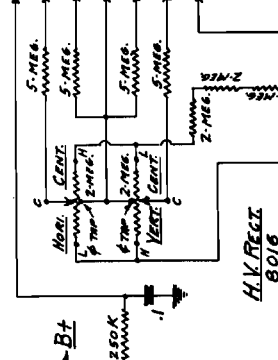
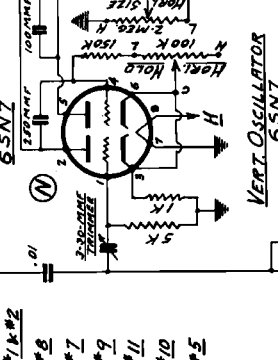
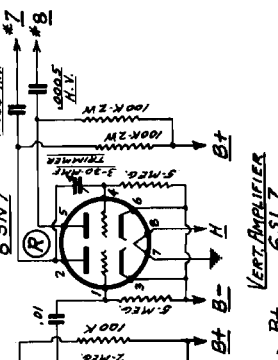
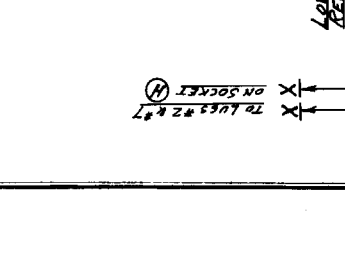
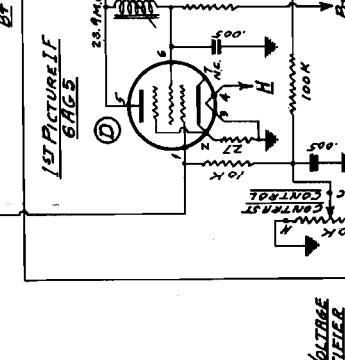
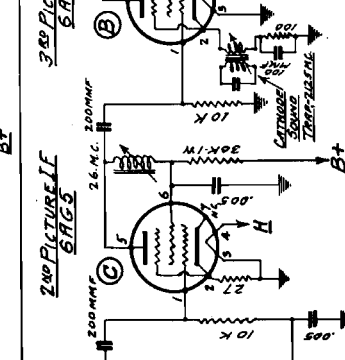
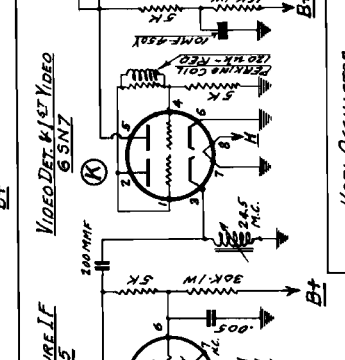
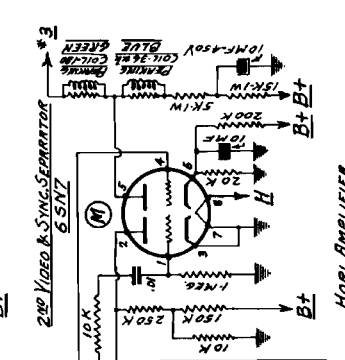
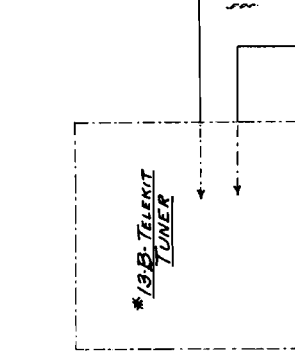
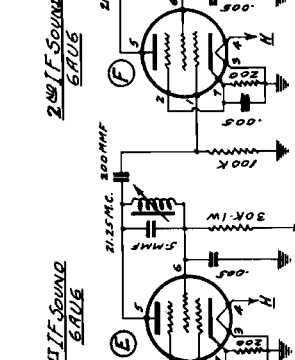
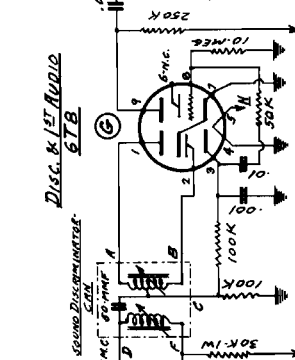
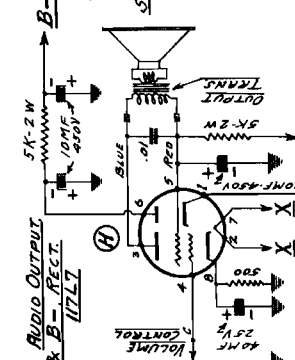
7B-TELEKIT



0 67

0 68

CIRCUIT *7B-TELEKIT
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NOTE
RESISTORS
K = 1,000 - OHMS
M = 1,000,000 - OHMS
ALL RESISTORS 1/2 WATT
UNLESS OTHERWISE INDICATED
R = FILLS OR MINUS TOLERANCE
OR 20% TOLERANCE

