

CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

- Turn the set on and allow for a 20 minute warmup. Tune in a TV signal, preferably a test pattern. Set controls for normal operation.

Turn the Horizontal Frequency Slug (Hold) clockwise until the picture loses sync. It may be necessary to switch from one channel to another
- for picture to lose sync.

Turn the Horizontal Frequency slowly counterclockwise until the picture just falls into sync.

DISASSEMBLY INSTRUCTIONS

- CHASSIS REMOVAL-MODEL J3340 SERIES**

 1. Remove rear cover (8 screws).
 2. Remove 6 screws (2 at top, 2 at left side, 2 at right side) holding front mask assembly.
 3. Remove 4 chassis bolts at bottom of cabinet.
 4. Disconnect VHF Tuner (3 slip-on connectors, IF Input, and plug for remote control receiver).
5. Disconnect plug to TV chassis from remote control receiver.
 6. Disconnect speaker leads.
 7. Remove TV chassis, mask, and picture tube assembly out front.

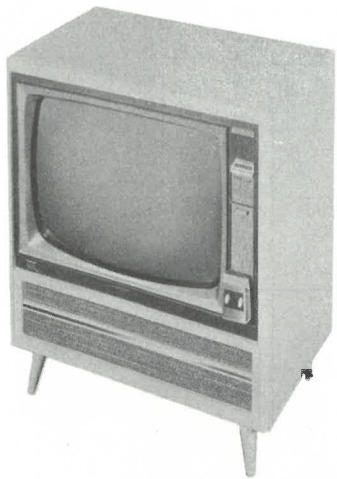
PICTURE TUBE REMOVAL

Follow instructions for Chassis Removal.

SET 607 FOLDER 2

ZENITH CHASSIS 16J22, Q, QS, U, 16J23, Q, QS, U

PHOTOFACT® Folder



MODEL J3340E

| | |
|--------------|---|
| TRADE NAME | Zenith |
| MANUFACTURER | Zenith Radio Corp., 6001 Dickens Ave., Chicago 39, Illinois |
| TUBES | VHF - Sixteen, UHF - Seventeen |
| POWER SUPPLY | 110-120 Volts AC, 60 Cycle |
| RATING | 215 Watts, 2 Amp. @ 117 Volts AC (with Remote Control S-55243) |
| TUNING RANGE | Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75 MC, Sound IF 41.25 MC (Intercarrier) |

16J22 SERIES TV CHASSIS

| TV Models | TV Chassis | Remote Control Receiver | AM-FM Chassis | Stereo Amp Chassis |
|---|------------|-------------------------|---------------|--------------------|
| J2717E, EU, R, RU, W, WU; J2749H, HU, M, MU, R, RU, W, WU; J2755H, HU, M, MU, R, RU, W, WU; J2756L, LU, R, RU, W, WU; T2075L, LU, W, WU | 16J22, U | | | |
| MJ2789M, MU, R, RU | 16J22, U | | 9H20 | 8H30 |
| MJ3388H | 16J22QS | S-55014 | 9H20 | 8H30 |
| J3310E, R, W | 16J22QS | S-55243 | | |
| J3311R, W, Y | 16J22QS | S-56074 | | |
| J3350L, R, W; J3355H, M, R, W; T3075L, W | 16J22QS | S-52494 | | |
| T3074L, W | 16J22Q | S-55243 | | |

16J23 SERIES TV CHASSIS

| TV Models | TV Chassis | Remote Control Receiver | AM-FM Chassis | Stereo Amp Chassis |
|---|------------|-------------------------|---------------|--------------------|
| H2707R, RU, Y, YU; J2705R, RU, Y, YU; J2707R, RU, Y, YU; J2735E, EU, L, LU, R, RU, W, WU; J2736E, EU, M, MU, R, RU, W, WU; J2737E, EU, R, RU, W, WU; J2738E, EU, R, RU, W, WU; J2739E, EU, R, RU, W, WU; J2740H, HU, R, RU, W, WU; J2741E, EU, R, RU, W, WU; T2050M, MU, R, RU, W, WU; T2070E, EU, R, RU, W, WU; T2072H, HU, W, WU; T2073M, MU; T2025W, WU; T2026H, HU, R, RU; T2027M, MU; T2706W, WU | 16J23, U | | | |
| J3308R, Y | 16J23Q | S-53193 | | |
| J3340E, R, W; J3341E, M, R, W; J3342E, R, W; J3343E, R, W; J3345L, R, W | 16J23QS | S-55243 | | |
| T3025W; T3026H, R; T3027M | 16J23Q | S-55243 | | |
| T3072H, W; T3073M | 16J23Q | S-52494 | | |
| MJ2786L, LU, W, WU | 16J23, U | | 9H20 | 4G21 |
| MJ2787 M, MU, R, RU | 16J23, U | | 9H20 | 8H30 |

RADIO, AMP MODELS

| Radio, Amp. Models | AM-FM Chassis | Stereo Amp Chassis |
|--------------------|---------------|--------------------|
| SFH2502MT, RT, WT; | | |
| SFH2503ET, WT | 4G21 | |
| MH2602M, R, W; | | |
| MH2603E, W | 9H20 | 4G21 |

VHF AND UHF TUNERS

| VHF Tuners | UHF Tuner |
|---------------------------|-----------|
| 175-204, -214 | 175-8 |
| 175-213 | |
| 175-306, -308 | |
| 175-307, -313 | |
| 175-314, -322 | |
| 175-401, -417 | |
| 175-402, -408, -414, -418 | |

SERVICING IN THE FIELD - PAGE 4

HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana



The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of LA706

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ZENITH CHASSIS 16J22, Q, QS, U, 16J23, Q, QS, U

IMPORTANT FILING NOTICE

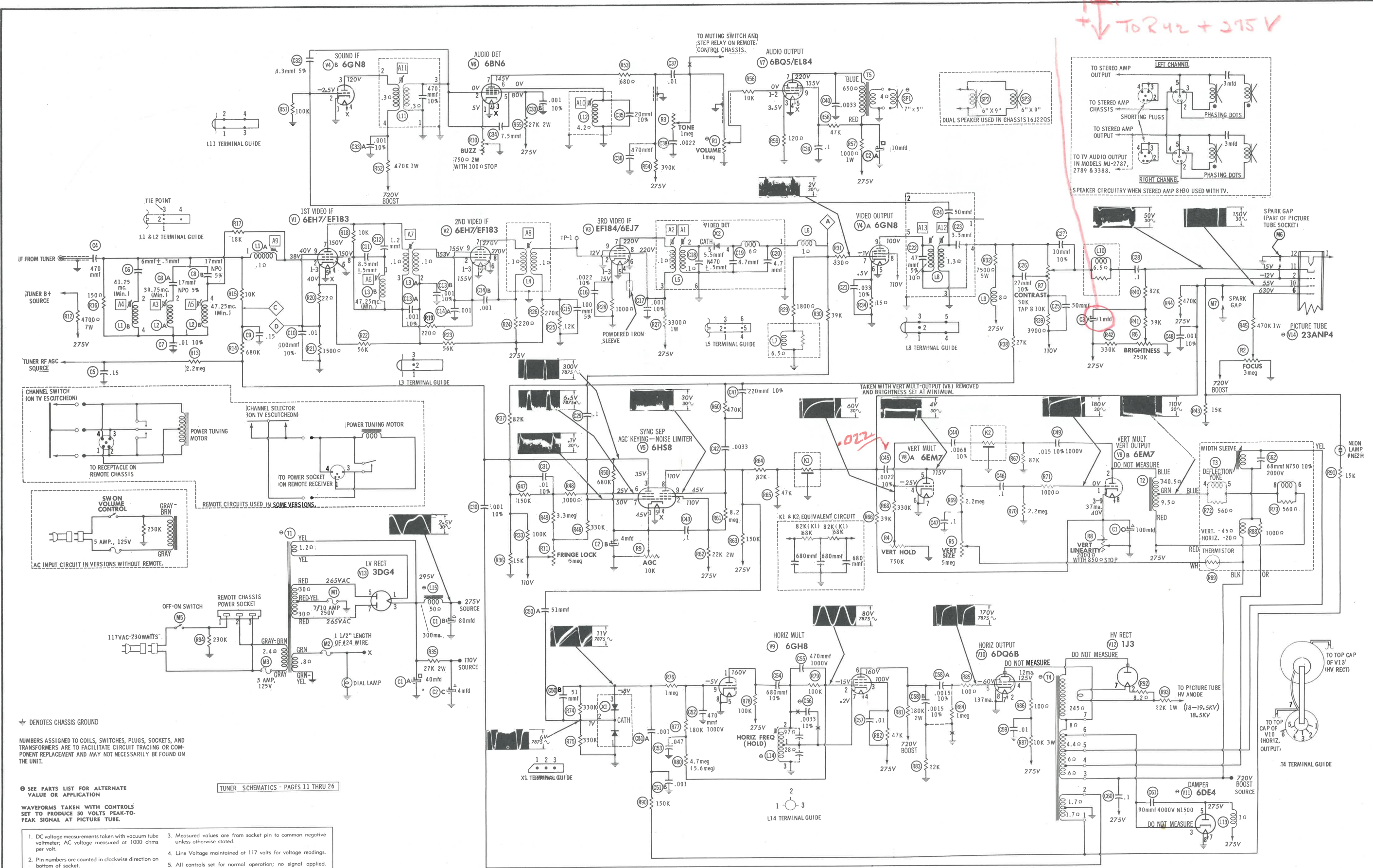
Some models covered by this PHOTOFACT Folder employ chassis in addition to the TV chassis. PHOTOFACT Folders covering these additional chassis are packaged immediately behind this Folder and should be filed with this Folder in the yellow filing jacket provided. For specific coverage see index below.

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| Amp Chassis 4G21 | | SET 607, FOLDER 2-C |
| Amp Chassis 8H30 | | SET 607, FOLDER 2-D |
| AM-FM Chassis 9H20 | | SET 607, FOLDER 1-2 |

ZENITH CHASSIS 16J22, Q, QS, U, 16J23, Q, QS, U

SET 607 FOLDER 2



⊕ DENOTES CHASSIS GROUND

NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

WAVEFORMS TAKEN WITH CONTROLS SET TO PRODUCE 50 VOLTS PEAK-TO-PEAK SIGNAL AT PICTURE TUBE.

| | |
|---|--|
| 1. DC voltage measurements taken with vacuum tube voltmeter; AC voltage measured at 1000 ohms per volt. | 3. Measured values are from socket pin to common negative unless otherwise stated. |
| 2. Pin numbers are counted in clockwise direction on bottom of socket. | 4. Line Voltage maintained at 117 volts for voltage readings. |
| | 5. All controls set for normal operation; no signal applied. |

TUNER SCHEMATICS - PAGES 11 THRU 26

A PHOTOFACT STANDARD NOTATION SCHEMATIC
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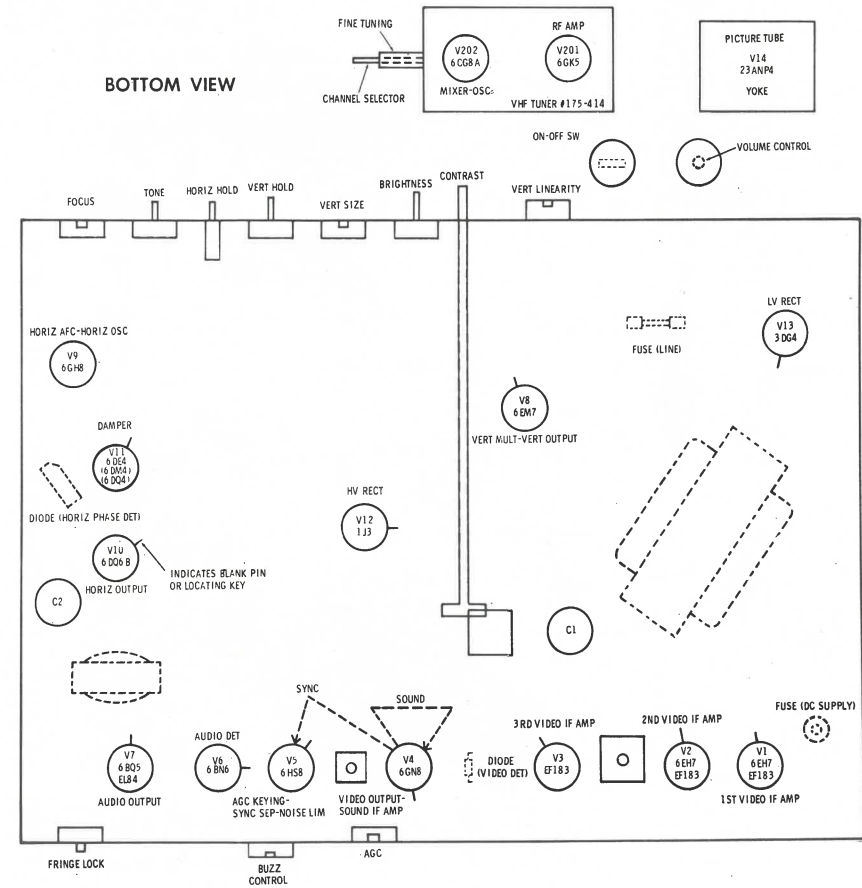
ZENITH CHASSIS 16J22, Q,
QS, U, 16J23, Q, QS, U

FOLDER 2

RESISTANCE MEASUREMENTS

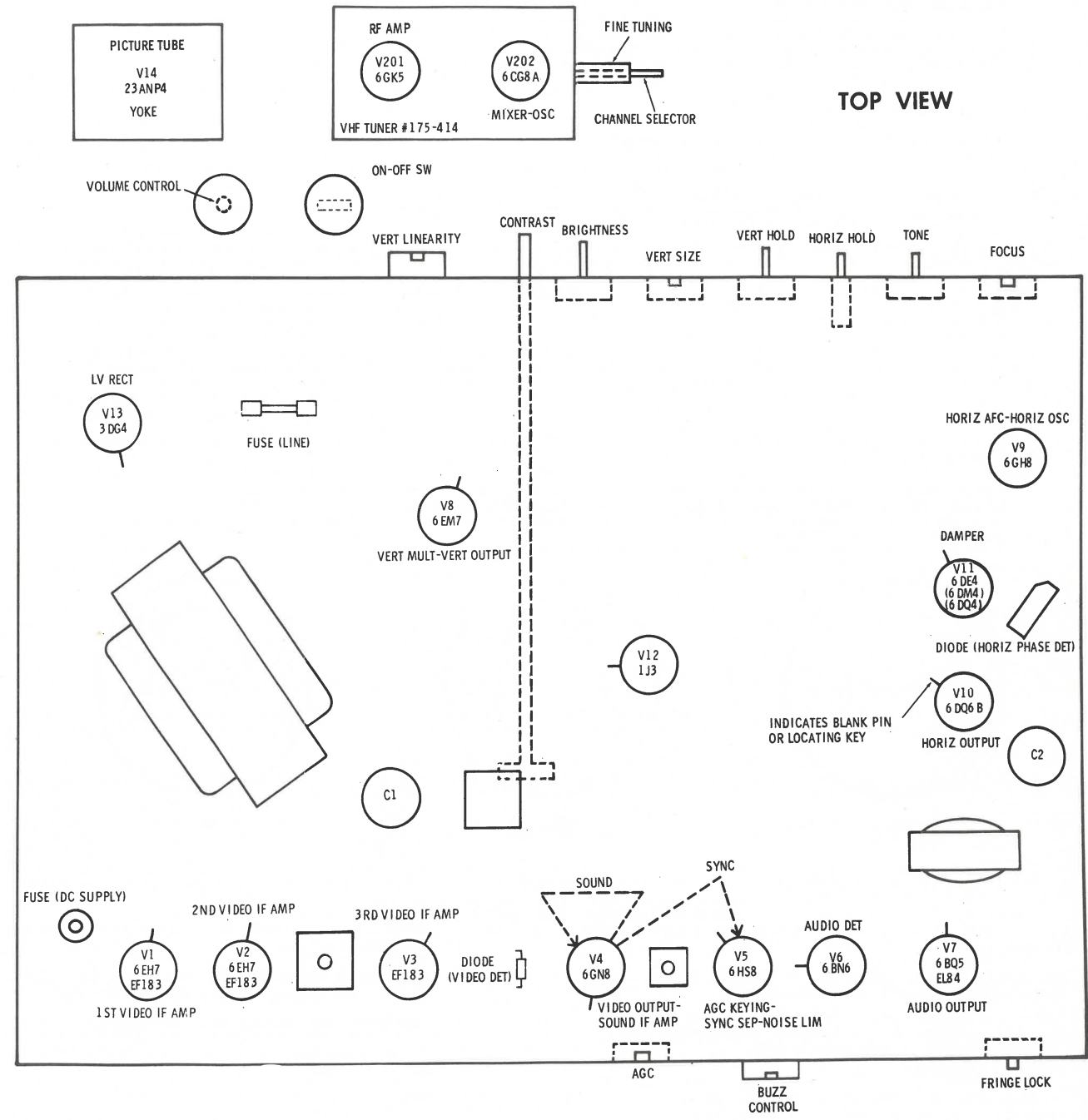
| ITEM | TUBE | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6 | Pin 7 | Pin 8 | Pin 9 |
|------|---------------|--|--------|-----------------|----------------|----------------|---------------|--------|--------|------------------|
| V1 | EF183 6EH7 | NC | 1.4meg | 1500Ω | FIL | FIL | 0Ω | ±230Ω | ±230Ω | 1500Ω |
| V2 | EF183 6EH7 | INF | 40K | NC | FIL | FIL | 0Ω | †275Ω | †275Ω | INF |
| V3 | EF184 6EJ7 | 1000Ω | 12K | NC | FIL | FIL | 0Ω | †3300Ω | †3300Ω | 0Ω |
| V4 | 6GN8 | 0Ω | 100K | †470K | FIL | FIL | 15Ω | 2000Ω | †15K | †6800Ω |
| V5 | 6HS8 | 5600Ω | †22K | 700K | FIL | FIL | 175K | 1meg | †70K | †8.2meg |
| V6 | 6BN6 | 375Ω | .5Ω | FIL | FIL | †27K | 3.5Ω | †390K | | |
| V7 | EL84 6BQ5 | NC | 10K | 120Ω | FIL | FIL | NC | †1700Ω | NC | †47K |
| V8 | 6EM7 | 2.2meg | †400Ω | 1000Ω | 500K | †5.5meg | 0Ω | FIL | FIL | |
| V9 | 6GH8 | †100K | 100K | †47K | FIL | FIL | †180K | 25Ω | 0Ω | 1.2meg |
| V10 | 6DQ6B | TP | FIL | NC | †10K | 1meg | NC | FIL | 0Ω | TOP CAP †8Ω |
| V11 | 6DE4 | NC | NC | 1.8meg | NC | †51Ω | NC | FIL | FIL | |
| V12 | 1J3 | PINS 1 THRU 8 HAVE INFINITE RESISTANCE | | | | | | | | TOP CAP †253Ω |
| V13 | 3DG4 | †30K | NC | †30K | TP | 30Ω | NC | 30Ω | TP | |
| V14 | 23ANP4 | FIL | 15K | Pin 6 2.5meg | Pin 10 †50K | Pin 11 130K | Pin 12 FIL | | | |
| V201 | 6GK5 | 0Ω | 2.9meg | FIL | FIL | †6000Ω | 0Ω | 0Ω | | |
| V202 | 6CG8A | 4700Ω | †9400Ω | 0Ω | FIL | FIL | †4700Ω | †4700Ω | 0Ω | 220K |

† THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
† MEASURED FROM PIN 3 OF V13. † MEASURED FROM PIN 1 OF V2.
† MEASURED FROM PIN 3 OF V11. NC NO CONNECTION TP TIE POINT
• VHF TUNER 175-414



TUBE PLACEMENT CHART

TUBE PLACEMENT CHART



TUBE FAILURE CHECK CHART

The following chart lists tubes whose failures are most likely to produce indicated symptoms. Refer to tube placement chart for location and type of tube.

POWER SUPPLY FAILURE
No raster, no sound Line Fuse M3, LV Rect. Fuse M1, Fil. Fuse M2, V13

SWEEP FAILURE
No raster, has sound V9, V10, V11, V12, V14
No vertical deflection V8
Poor vert. linearity or foldover V8
Poor horiz. linearity or foldover V9, V10, V11
Narrow picture V9, V10, V11, V13
Vert. off freq. V8
Horiz. off freq. AFC Diode X1, V9

LOSS OF PICTURE OR SOUND
No pic, no sound, has raster V1, V2, V3, Video Det. X2, V4
No pic, no sound, has snow V201, V202, V1
No pic, has sound, has raster V4, V14
Has pic, no sound V4, V8, V7
Overloaded picture V5

SYNC FAILURE
No vert. sync V5
No horiz. sync V5
No vert. or horiz. sync V5

ZENITH CHASSIS 16J22, Q,
Q5, U, 16J23, Q, Q5, U

FOLDER 2

ALIGNMENT INSTRUCTIONS

PRE-ALIGNMENT INSTRUCTIONS

The High Voltage lead should be securely taped and kept away from the chassis.
Allow a 20 minute warm-up period for the receiver and test equipment.
Suggested Alignment Tools: A1 thru A13 GENERAL CEMENT #8282, 8606, 8606L, 9295, 9440
WALSCO #2526, 2543, 2544, 2545

VIDEO IF ALIGNMENT

Use only enough generator output to provide a usable indication.
Disable oscillator grid by removing a pin of a test tube.
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.

| | SWEEP GENERATOR COUPLING | SWEEP GENERATOR FREQUENCY | MARKER GENERATOR FREQUENCY | CHANNEL | CONNECT SCOPE | ADJUST | REMARKS |
|----|---|---------------------------|-------------------------------|-----------------------------|---|--------------------------------|---|
| 1. | High side to Point TP-1. Low side to chassis. | 44MC (10MC Sweep) | 39.75MC 41.25MC 45.75MC | Any non-interfering channel | Vert. Amp. to Point A. Low side to chassis. | A1, A2 | Adjust for maximum gain and symmetry of response similar to Fig. 1 with markers as shown. |
| 2. | High side to ungrounded tube shield over Mixer-Osc. Low side to chassis | " | 39.75MC 41.25MC 47.25MC | " | " | A3, A4, A5, A6 | Adjust for MINIMUM amplitude. A3 affects 39.75MC, A4 affects 41.25MC, A5 and A6 affect 47.25MC. Adjust for symmetry of response similar to Fig. 2. |
| 3. | " | " | 42.75MC 45.0MC 45.75MC | " | " | A7, A8, A9, & Mixer Plate Coil | Adjust for maximum gain and symmetry of response similar to Fig. 3 with markers as shown. A7 affects low frequency side of curve, A8 affects high frequency side. |

SOUND IF ALIGNMENT

Tune in a strong TV signal and adjust controls for normal operation. Adjust A10 for maximum undistorted sound.
Disconnect antenna to produce a weak signal and adjust A11, A12 and A13 for maximum sound.
Connect antenna and readjust A10 for maximum sound. (If Fine Tuning Control will not tune out 4.5MC from screen, retouch A13.)
Adjust Buzz Control for MINIMUM buzz.

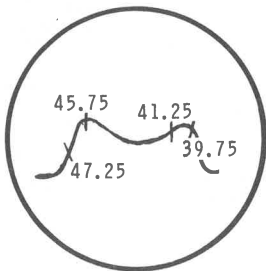


FIG. 1

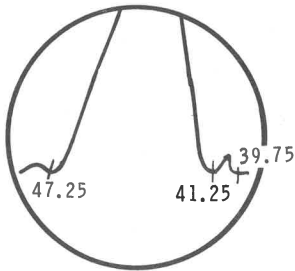


FIG. 2

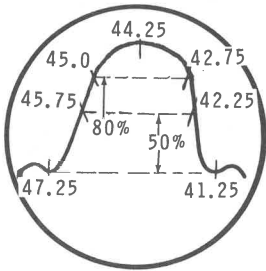


FIG. 3

SERVICING IN THE FIELD

SAFETY GLASS

The safety glass is an integral part of the picture tube (bonded) on Models using 23ANP4 Picture Tube.

Models using 23BJP4: Safety glass is specially sealed to picture tube face (some models); on others, safety glass is removable from front for picture tube cleaning.

FUSE OR FUSE DEVICE

A 5 Amp. Line fuse, a 7/10 Amp. L. V. Supply fuse, and a fuse wire (Filament) are used for receiver protection. See "Tube Placement Chart" for fuse locations; see M2 in photo "Chassis - Bottom View" for fuse wire (Fil.) location.

TUNER OSCILLATOR ADJUSTMENTS

Tuners 175-401, -402, -408, -414, -417, -418
Set overall oscillator trimmer at mid-range. Adjust Osc. slug (one for each channel) for best picture and sound.

Tuners 175-204, -213, -214
Set Fine Tuning at center of range. Adjust Osc. slug for each channel for best picture and sound.

Tuners 175-306, -307, -308, -313, -314, -322
The Osc. slug for each channel is adjusted by the Fine Tuning.

AGC

The AGC may be varied by means of an AGC control. (For location, see "Tube Placement Chart".)

FOCUS

The focus may be varied by means of a Focus control. (See "Tube Placement Chart" for location.)

SYNC STABILITY

Sync stability may be varied by means of a Fringe Lock control. (For location, see "Tube Placement Chart".)

HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

The Horizontal Stabilizing Coil Slug (Freq.) is used for the Horizontal Hold.

WIDTH

The width may be varied by adjusting a metallic sleeve, located between the yoke and the picture tube neck, in or out of the yoke.

BUZZ ADJUSTMENT

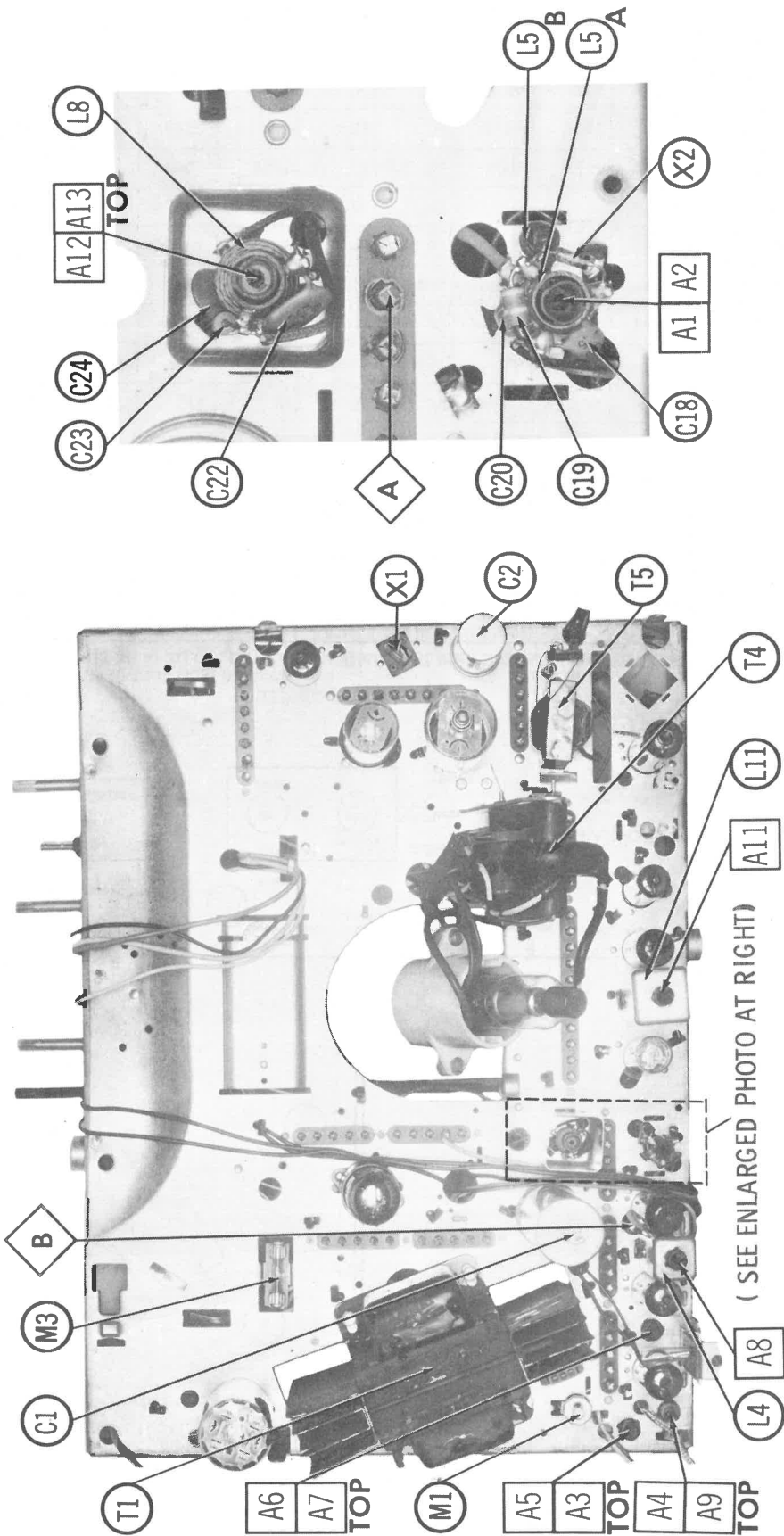
To eliminate intercarrier buzz, adjust the Buzz control for MINIMUM buzz and maximum sound. (For location, see "Tube Placement Chart".)

CENTERING

Centering is accomplished by 2 magnetic rings, located behind the yoke, on the neck of the picture tube.

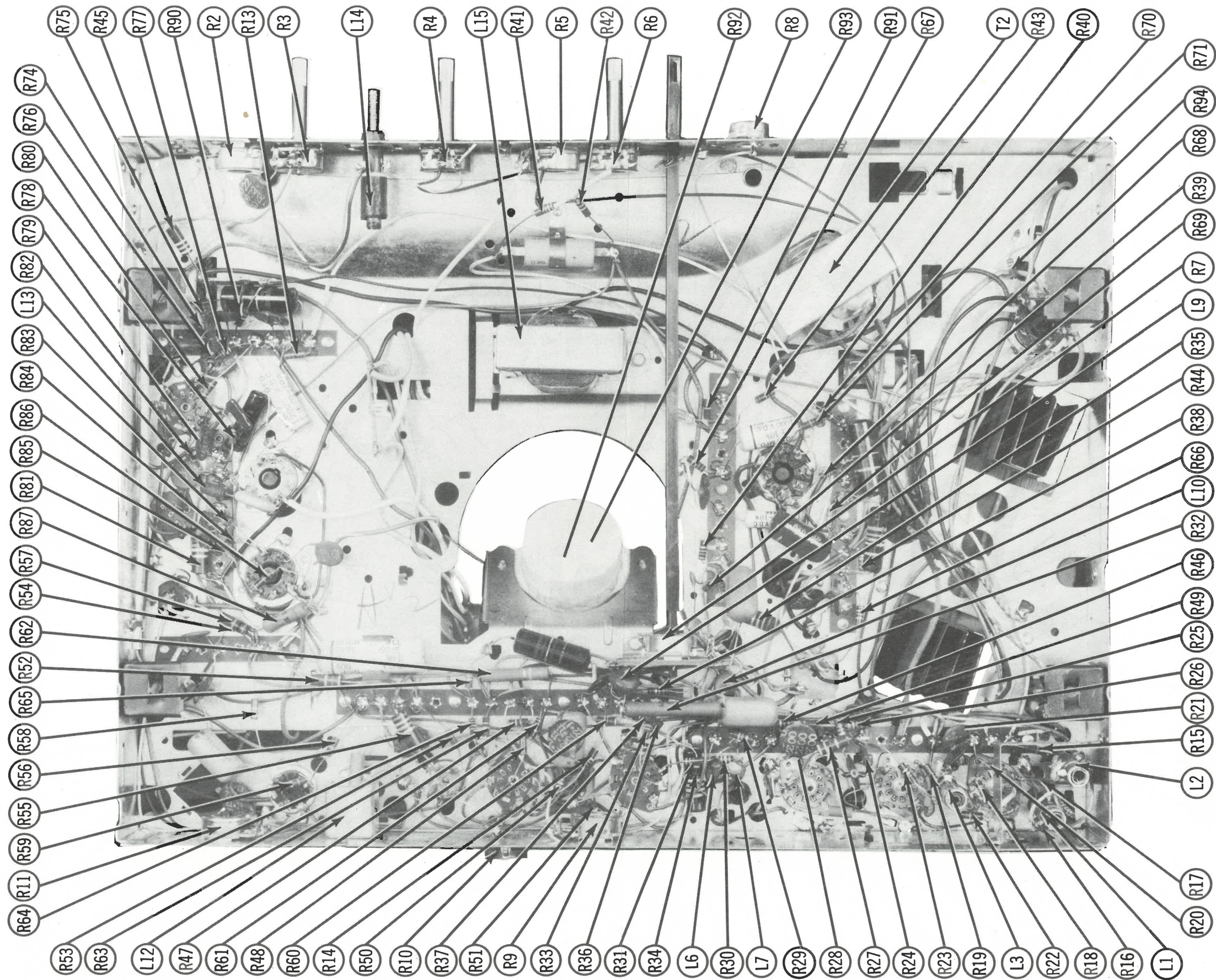
PINCUSHION CORRECTION

Reduce the picture size so that the sides of the raster are visible. Position the magnets (two) so that all sides are straight.



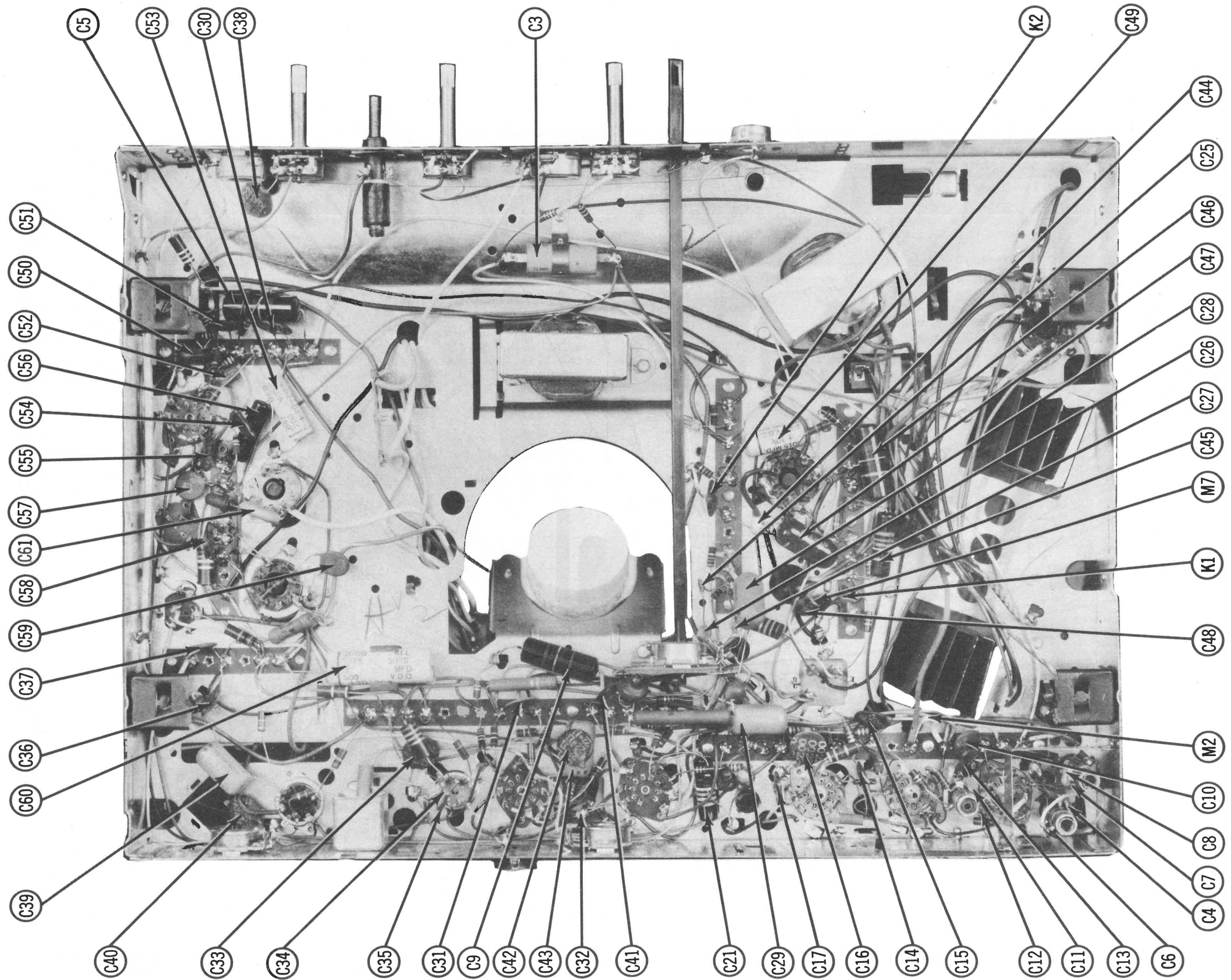
ZENITH CHASSIS 16J22, Q,
Q5, U, 16J23, Q, Q5, U

CHASSIS - TOP VIEW



CHASSIS BOTTOM VIEW - RESISTOR, INDUCTOR, TRANSFORMER IDENT.

ZENITH CHASSIS 16J22, Q,
Q5, U, 16J23, Q, Q5, U



CHASSIS BOTTOM VIEW - CAPACITOR, MISC. IDENT.

ALIGNMENT INSTRUCTIONS
VHF TUNER 175-204, -213, -214

PRE-ALIGNMENT INSTRUCTIONS


USE AN ISOLATION TRANSFORMER TO PROTECT THE TEST EQUIPMENT.
The High Voltage lead should be securely taped and kept away from the chassis.
Allow a 20 minute warm-up period for the receiver and test equipment.

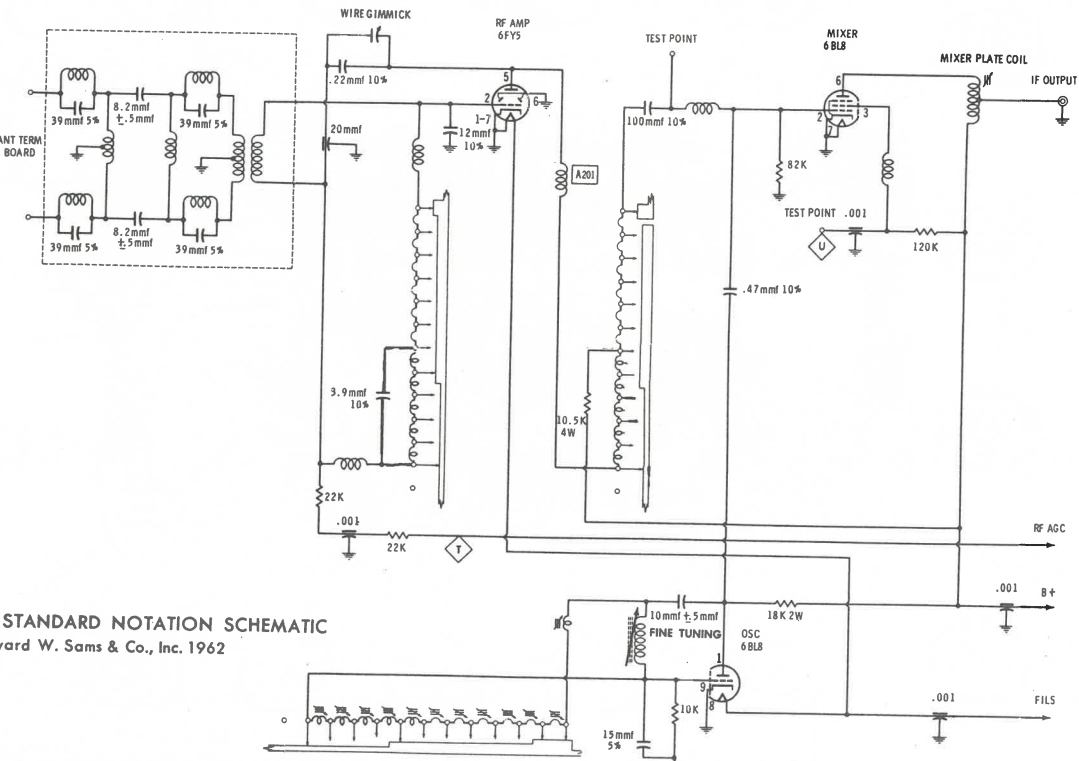
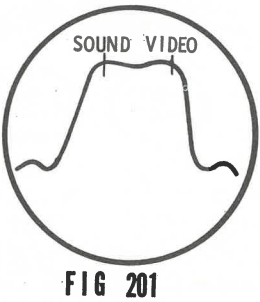
VHF OSCILLATOR ADJUSTMENT

Set Fine Tuning to center of its range. Starting with highest channel in area, adjust the appropriate oscillator screw for best picture and sound.

VHF RF MIXER ALIGNMENT

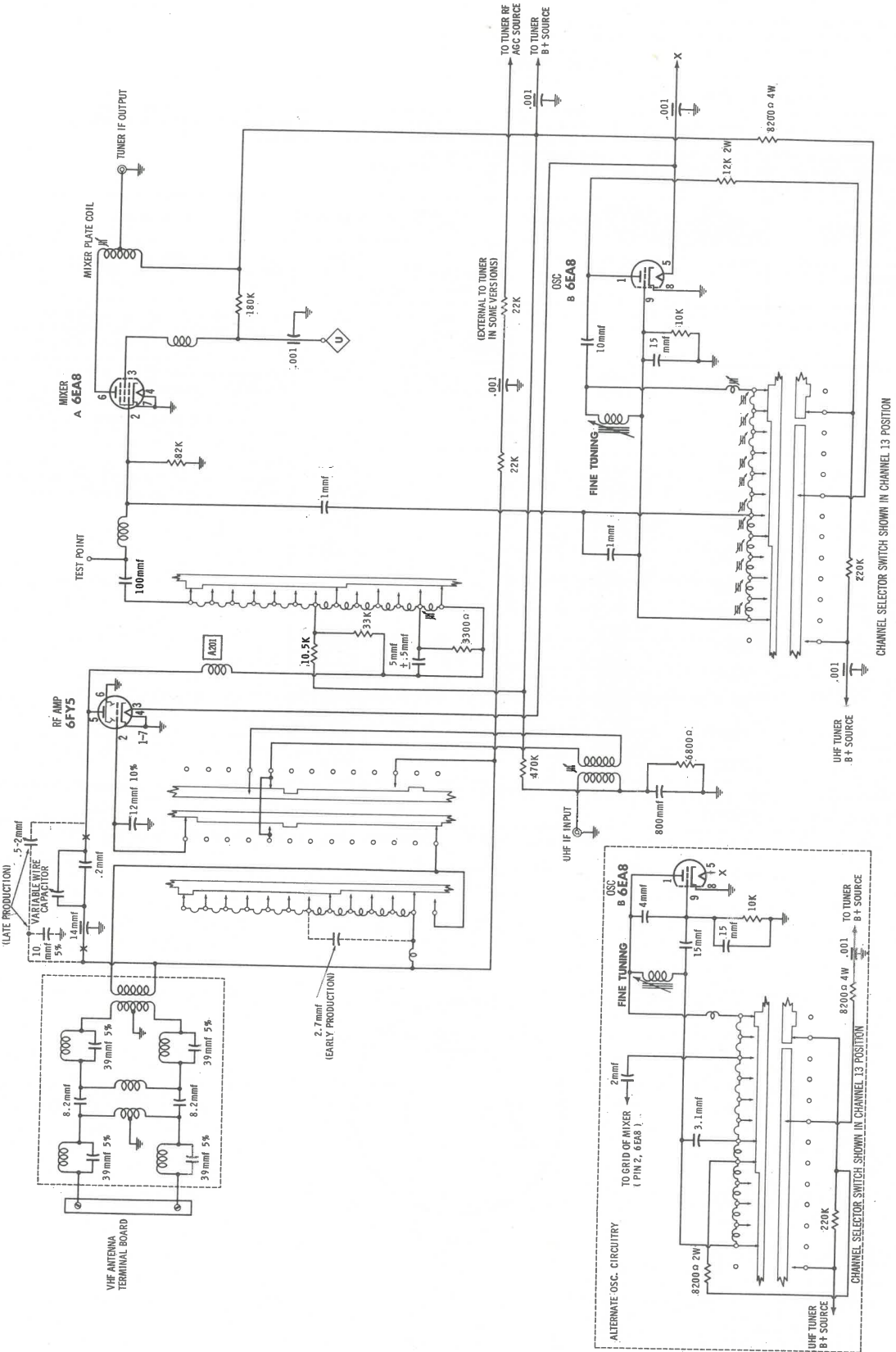
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.
Use only enough sweep generator output to provide a usable pattern on scope.
Use 10MC sweep unless otherwise noted.
Connect variable bias to IF AGC line. Adjust bias to obtain response curve which shows no indication of overloading.

| SWEEP GENERATOR COUPLING | SWEEP GENERATOR FREQUENCY | MARKER GENERATOR FREQUENCY | CHANNEL | CONNECT SCOPE | ADJUST | REMARKS |
|---|---------------------------|----------------------------|---------|---|--------|--|
| 1. Across Antenna Terminal with 120Ω Resistor in each lead. | 213MC | 211.25MC 215.75MC | 13 | Vert. Amp. thru Demodulator Probe to Point  . Low side to chassis. | A201, | Spread or compress coils for maximum gain and symmetry of response similar to Fig. 201 with markers as shown. If necessary, make compromise adjustment for best picture and sound in all channels. |
| | 207MC | 205.25MC 209.75MC | 12 | | | |
| | 201MC | 199.25MC 203.75MC | 11 | | | |
| | 195MC | 193.25MC 197.75MC | 10 | | | |
| | 189MC | 187.25MC 191.75MC | 9 | | | |
| | 183MC | 181.25MC 185.75MC | 8 | | | |
| | 177MC | 175.25MC 179.75MC | 7 | | | |
| | 85MC | 83.25MC 87.75MC | 6 | | | |
| | 79MC | 77.25MC 81.75MC | 5 | | | |
| | 69MC | 67.25MC 71.75MC | 4 | | | |
| | 63MC | 61.25MC 65.75MC | 3 | | | |
| | 57MC | 55.25MC 59.75MC | 2 | | | |



13 POSITION WAFER-TYPE VHF TUNER 175-204, -214

TUNERS & PARTS LIST



13 POSITION WAFER-TYPE VHF TUNER 175-213

ZENITH CHASSIS 16J22, Q,
Q5, U, 16J23, Q, Q5, U

A PHOTOFAC STANDARD NOTATION SCHEMATIC
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FOLDER 2

ALIGNMENT INSTRUCTIONS
VHF TUNER 175-401, -402, -408, -414, -417, -418

PRE-ALIGNMENT INSTRUCTIONS

The High Voltage lead should be securely taped and kept away from the chassis.
Allow a 20 minute warm-up period for the receiver and test equipment.
Suggested Alignment Tools: A201, A202 GENERAL CEMENT #9050L, 9150
WALSCO #252L, 2524

VHF RF AND MIXER ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.
The generator output lead should be terminated with its characteristic impedance, usually 50 ohms.
Use only enough sweep generator output to provide a usable pattern on scope.
Connect the negative lead of a 2.5 volt bias supply to point \diamond . Positive to chassis.
Use 10MC sweep unless otherwise noted.

| | SWEEP GENERATOR COUPLING | SWEEP GENERATOR FREQUENCY | MARKER GENERATOR FREQUENCY | CHANNEL | CONNECT SCOPE | ADJUST | REMARKS |
|----|--|---------------------------|----------------------------|---------|--|------------|--|
| 1. | Across VHF antenna terminals with 120 Ω in each lead. | 195MC | 193. 25MC 197. 75MC | 10 | Vert. Amp. thru 10K to point \diamond . Low side to chassis. | A201, A202 | Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown. |
| 2. | " | " | " | " | Vert. Amp. thru 10K across Video Detector load. | A203 | Increase bias at point \diamond to -20 volts. Adjust position of capacitor wire A203 for MINIMUM output as indicated on scope. |
| 3. | " | 213MC | 211. 25MC 215. 75MC | 13 | Vert. Amp. thru 10K to point \diamond . Low side to chassis. | A204 | Reset bias at point \diamond to -2.5 volts. Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown. Adjust by expanding or compressing coil turns. |
| 4. | " | 207MC | 205. 25MC 209. 75MC | 12 | " | A205 | Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown. Adjust by expanding or compressing coil turns. |
| | | 201MC | 199. 25MC 203. 75MC | 11 | | A206 | |
| | | 195MC | 193. 25MC 197. 75MC | 10 | | A207 | |
| | | 189MC | 187. 25MC 191. 75MC | 9 | | A208 | |
| | | 183MC | 181. 25MC 185. 75MC | 8 | | A209 | |
| | | 177MC | 175. 25MC 179. 75MC | 7 | | A210 | |
| | | 85MC | 83. 25MC 87. 75MC | 6 | | A211 | |
| | | 79MC | 77. 25MC 81. 75MC | 5 | | A212 | |
| | | 69MC | 67. 25MC 71. 75MC | 4 | | A213 | |
| | | 63MC | 61. 25MC 65. 75MC | 3 | | A214 | |
| | | 57MC | 55. 25MC 59. 75MC | 2 | | A215 | |

VHF OSCILLATOR ALIGNMENT

The VHF Oscillator is adjusted by turning the Fine Tuning, which thru a gear mechanism, turns the Oscillator slug in each individual channel strip.

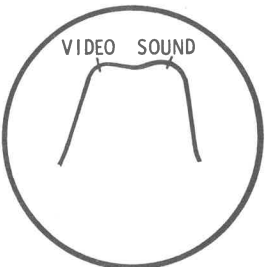
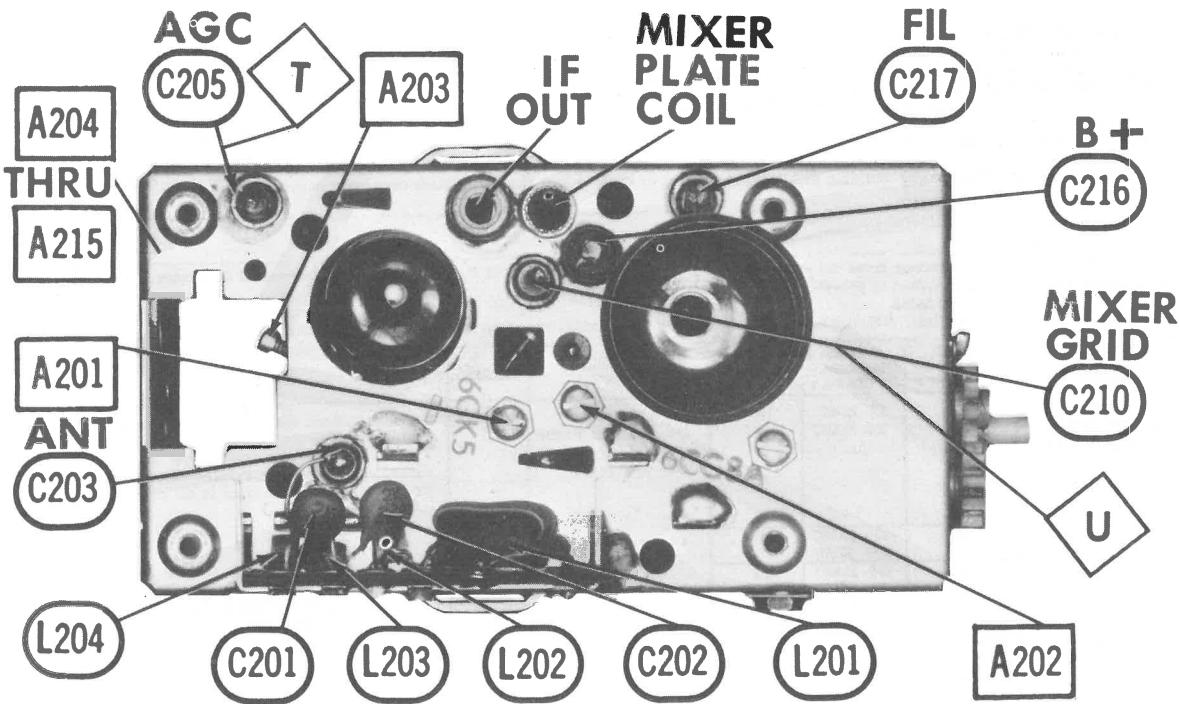
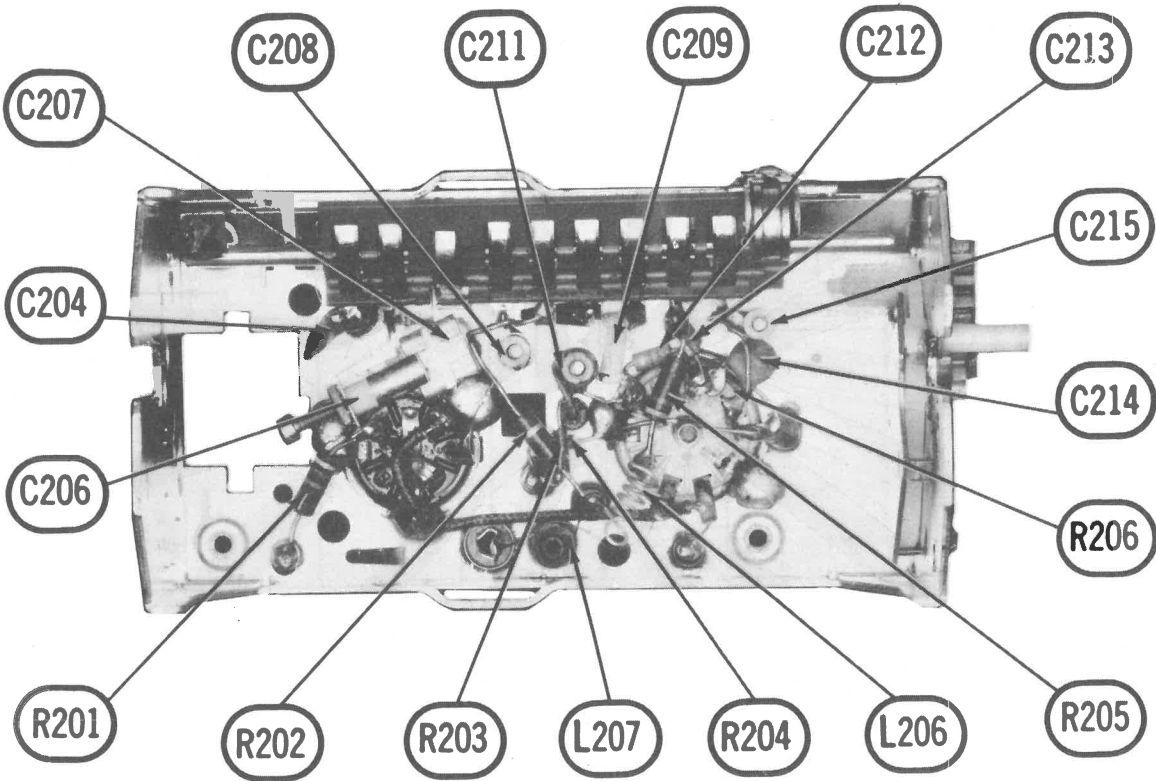


FIG. 201



VHF TUNER 175-408 — TOP VIEW



VHF TUNER 175-408 — BOTTOM VIEW

ZENITH CHASSIS 16J22, Q,
QS, U, 16J23, Q, QS, U

FOLDER 2

PARTS LIST & DESCRIPTIONS
VHF TUNER 175-408

TUBES

| GENERAL ELECTRIC | | | RAYTHEON | | | SYLVANIA | | |
|------------------|--------------|------|----------|--------------|-------|----------|-----|------|
| ITEM No. | USE | TYPE | ITEM No. | USE | TYPE | ITEM No. | USE | TYPE |
| V201 | RF Amplifier | 6GK5 | V202 | Mixer - Osc. | 6CG8A | | | |

FIXED CAPACITORS

| ITEM No. | RATING | REMARKS | REPLACEMENT DATA | | | | | |
|----------|-------------|----------|------------------|--------------------|---------------------------|------------------|------------------|------------------|
| | | | AEROVOX PART No. | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | ELMENCO PART No. | MALLORY PART No. | SPRAGUE PART No. |
| C201A | 27 N750 5% | #22-3111 | EF-001 | TCN-27 | C10Q27U | CCTN-270 | CN7-427 | 10TCU-Q27 |
| B | 27 N750 5% | | | TCN-27 | C10Q27U | CCTN-270 | CN7-427 | 10TCU-Q27 |
| C202A | 27 N750 5% | | | TCN-27 | C10Q27U | CCTN-270 | CN7-427 | 10TCU-Q27 |
| B | 27 N750 5% | | | TCN-27 | C10Q27U | CCTN-270 | CN7-427 | 10TCU-Q27 |
| C203 | 30 7.5% | | | TCN-27 | C10Q27U | CCTN-270 | CN7-427 | 10TCU-Q27 |
| C204 | 20 5% | #22-3572 | EF-0001 | DTZ-20 | C10Q2C | CNO-422 | CT280A | 10TCC-Q20 |
| C205 | .001 | | | MFT-1000 | | | | |
| C206 | 2-8 | | | 829-8 | | CCF-102 | | |
| C207 | 100 5% | | | MFT-100 | | | | |
| C208 | .5-3 | | | 829-3 | | CU-1 | CT565 | |
| C209 | 33 | #22-3112 | SI 33 | D6-330 | L10Q33 | CCD-330 | GP433 | 10TS-Q33 |
| C210 | 40 | | | | | | | |
| C211 | .5-3 | | | 829-3 | | CV-1 | CT565 | |
| C212 | .75 10% | | | | | | | |
| C213 | 15 N220 5% | | | | | | | 10TCR-Q15 |
| C214 | 2.2 N220 5% | #22-3564 | EF-001 | 829-3 | | CV-1 | CT565 | |
| C215 | .5-3 | | | MFT-1000 | | CCF-102 | CT280A | |
| C216 | .001 | | | MFT-1000 | | CCF-102 | CT280A | |
| C217 | .001 | | | | | | | |

Zenith Part Number.
* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

RESISTORS

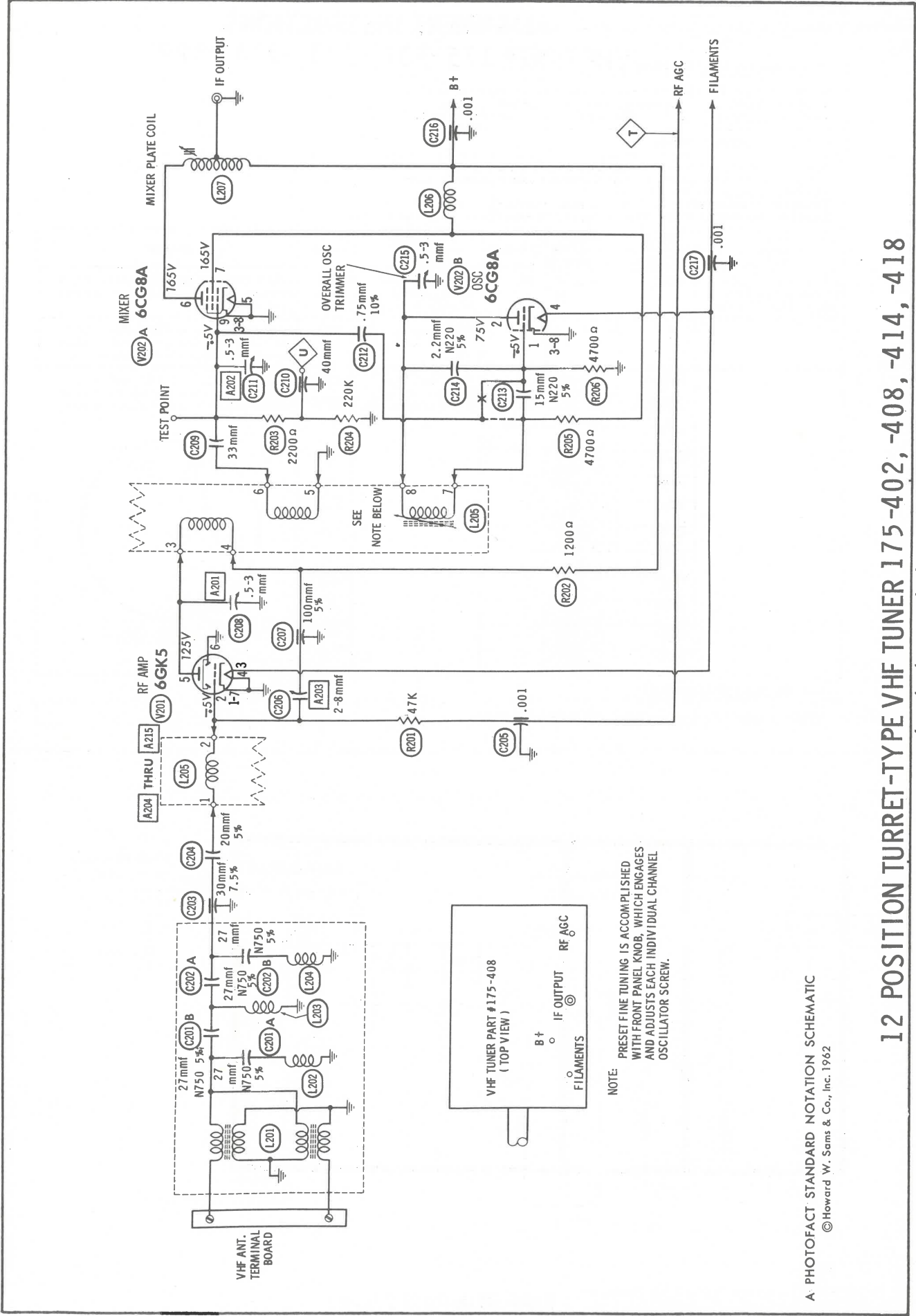
All wattages 1/2 watt, or less, unless otherwise listed.

| ITEM No. | RATING | REPLACEMENT DATA | | | ITEM No. | RATING | REPLACEMENT DATA | | |
|----------|--------|------------------|------------------|---------|----------|--------|------------------|------------------|---------|
| | | IRC PART No. | WORKMAN PART No. | REMARKS | | | IRC PART No. | WORKMAN PART No. | REMARKS |
| R201 | 47K | | | | R204 | 220K | | | |
| R202 | 1200Ω | | | | R205 | 4700Ω | | | |
| R203 | 2200Ω | | | | R206 | 4700Ω | | | |

COILS (RF-IF)

| ITEM No. | USE | PART No. | NOTES |
|----------|------------------------|----------|-----------------|
| L201 | Ant. Trans. | S-53545 | Includes Ass'y. |
| L202 | RF Choke | 20-928 | |
| L203 | RF Choke | 20-926 | |
| L204 | RF Choke | 20-880 | |
| L205A | Ant, RF, Mixer, & Osc. | 174-82 | |
| B | " | 174-83 | Channel 3 |
| C | " | 174-84 | Channel 4 |
| D | " | 174-85 | Channel 5 |
| E | " | 174-86 | Channel 6 |

| ITEM No. | USE | PART No. | NOTES |
|----------|------------------------|----------|------------|
| L205F | Ant, RF, Mixer, & Osc. | 174-87 | Channel 7 |
| G | " | 174-88 | Channel 8 |
| H | " | 174-89 | Channel 9 |
| J | " | 174-90 | Channel 10 |
| K | " | 174-91 | Channel 11 |
| L | " | 174-92 | Channel 12 |
| M | " | 174-93 | Channel 13 |
| L206 | RF Choke | 20-927 | |
| L207 | Mixer Plate | S-47370 | |



ZENITH CHASSIS 16J22, Q,
QS, U, 16J23, Q, QS, U

12 POSITION TURRET-TYPE VHF TUNER 175-402, -408, -414, -418

FOLDER 2

ALIGNMENT INSTRUCTIONS
VHF TUNER 175-307, -313, -314, -322

PRE-ALIGNMENT INSTRUCTIONS

The High Voltage lead should be securely taped and kept away from the chassis.
Allow a 20 minute warm-up period for the receiver and test equipment.
Suggested Alignment Tools: A201, A202 GENERAL CEMENT #9211

VHF RF AND MIXER ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.
Use only enough sweep generator output to provide a usable pattern on scope.
Use 10MC sweep unless otherwise noted.
Connect the negative lead of a 2.5 volt bias supply to point \odot . Positive to chassis.
Coils not containing adjustable cores are adjusted by expanding or compressing coil turns.

| | SWEEP GENERATOR COUPLING | SWEEP GENERATOR FREQUENCY | MARKER GENERATOR FREQUENCY | CHANNEL | CONNECT SCOPE | ADJUST | REMARKS |
|----|--|---|--|--|---|--|--|
| 1. | Across VHF antenna terminals thru 300 Ω matching transformer. | 195MC | 193.25MC 197.75MC | 10 | Vert. Amp. thru 10K to point \odot . Low side to chassis. | A201, A202 | Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown. |
| 2. | " | " | " | " | Vert. Amp. across Video Detector load. | A203 | Increase bias at point \odot to -20V. Adjust position of A203 (capacitor wire) to obtain MINIMUM amplitude of response on scope. |
| 3. | " | 213MC 207MC 201MC 195MC 189MC 183MC 177MC 85MC 79MC 69MC 63MC 57MC | 211.25MC 215.75MC 205.25MC 209.75MC 199.25MC 203.75MC 193.25MC 187.25MC 191.75MC 181.25MC 185.75MC 175.25MC 179.75MC 83.25MC 87.75MC 77.25MC 81.75MC 67.25MC 71.75MC 65.75MC 55.25MC | 13 12 11 10 9 8 7 6 5 4 3 2 | Vert. Amp. thru 10K to point \odot . Low side to chassis. | A204 A205 A206 A207 A208 A209 A210 A211 A212 A213 A214 A215 | Decrease bias to -2.5 volts. Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown. |

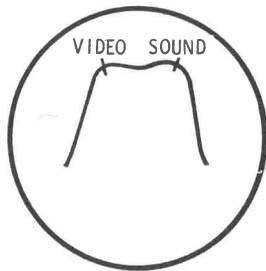
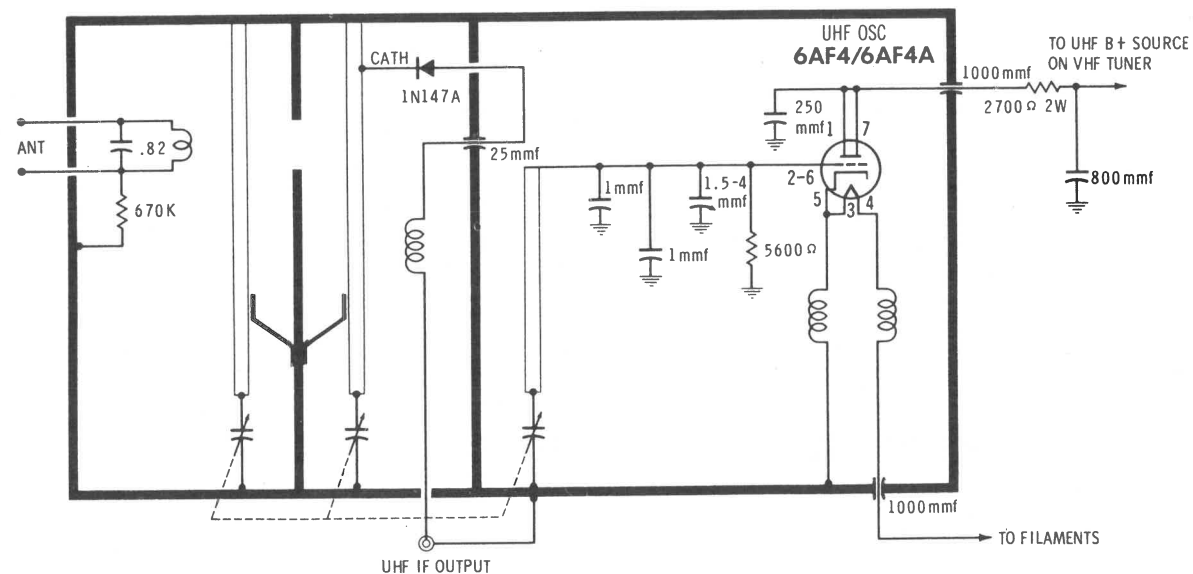


FIG. 201

VHF OSCILLATOR ALIGNMENT

Oscillator adjustment slugs are adjusted by turning Fine Tuning.



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UHF TUNER 175-8

PARTS LIST & DESCRIPTIONS
VHF TUNER 175-306, -308

TUBES

| GENERAL ELECTRIC | | | RAYTHEON | | | SYLVANIA | | |
|------------------|---------|--------|----------|--------------|------|----------|--|--|
| ITEM No. | USE | TYPE | ITEM No. | USE | TYPE | | | |
| V201 | RF Amp. | 6FY5 * | V202 | Mixer - Osc. | 6EA8 | | | |

* 6GK5 in some versions.

FIXED CAPACITORS

| ITEM No. | RATING | REMARKS | REPLACEMENT DATA | | | | | |
|----------|----------------------|----------|------------------|--------------------|---------------------------|------------------|------------------|------------------|
| | | | AEROVOX PART No. | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | ELMENCO PART No. | MALLORY PART No. | SPRAGUE PART No. |
| C201A | 27 N220 5% | #22-3553 | EF-001 | MFT-1000 | | CCF-102 | CT280A | 10TCR-Q27 |
| B | 27 N220 5% | | | | | | | 10TCR-Q27 |
| C202A | 27 N220 5% | | | | | | | 10TCR-Q27 |
| B | 27 N220 5% | #22-3553 | EF-001 | MFT-1000 829-3 | | CCF-102 CV-1 | CT280A CT565 | 10TCR-Q22 |
| C203 | 22 N220 5% | #22-3270 | | | | | | 10TCC-V27 |
| C204 | 22 N220 5% | #22-3371 | | | | | | |
| C205 | .001 | #22-3483 | EF-001 | MFT-1000 829-3 | | CCF-102 CV-1 | CT280A CT565 | 10TCR-Q22 |
| C206 | 2.6 5% | | | | | | | |
| C207 | 56 | #22-3488 | | | | | | |
| C208 | .001 | #22-3373 | EF-001 | MFT-1000 829-3 | | CCF-102 CV-1 | CT280A CT565 | 10TCR-Q22 |
| C209 | .5-3.2 | | | | | | | |
| C210 | 33 N220 5% | | | | | | | |
| C211 | .5-3.2 | #22-3369 | EF-001 | MFT-1000 829-3 | | CCF-102 CV-1 | CT280A CT565 | 10TCP-V82 |
| C212 | .001 | | | | | | | |
| C213 | .001 | | | | | | | |
| C214 | 8.2 N150 \pm .1mmf | #22-3372 | EF-001 | MFT-1000 829-3 | | CCF-102 CV-1 | CT280A CT565 | 10TCP-V82 |
| C215 | 4 N150 \pm .1mmf | | | | | | | |
| C216 | .001 | | | | | | | |
| C217 | .001 | | EF-001 | MFT-1000 | | CCF-102 | CT280A | |

Zenith Part Number

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

| ITEM No. | RATING | REPLACEMENT DATA | | | ITEM No. | RATING | REPLACEMENT DATA | | |
|----------|---------------|------------------|---------------------|---------|----------|--------|------------------|---------------------|---------|
| | | IRC PART No. | WORKMAN TV PART No. | REMARKS | | | IRC PART No. | WORKMAN TV PART No. | REMARKS |
| R201 | 100K | | | | R205 | 10K | | | |
| R202 | 1000 Ω | | | | R206 | 22K 2W | PW5-11K | 7W-SQ-11K | |
| R203 | 220K | | | | R207 | 11K 4W | | | |
| R204 | 100K | | | | | | | | |

COILS (RF-IF)

| ITEM No. | USE | ZENITH PART No. | NOTES | ITEM No. | USE | ZENITH PART No. | NOTES |
|----------|------------------------|-----------------|--|----------|-----------------------|-----------------|------------|
| L201 | Ant. Trans. | S-49189 | Complete Filter Assy. #S-54086 (S-49191 in early production) | L202G | Ant. RF, Mixer & Osc. | S-49208 | Channel 8 |
| L202A | Ant., RF, Mixer & Osc. | S-49202 | Channel 2 | H | " | S-49209 | Channel 9 |
| | | S-49203 | Channel 3 | J | " | S-49210 | Channel 10 |
| | | S-49204 | Channel 4 | K | " | S-49211 | Channel 11 |
| | | S-49205 | Channel 5 | L | " | S-49212 | Channel 12 |
| | | S-49206 | Channel 6 | M | " | S-49213 | Channel 13 |
| | | S-49207 | Channel 7 | L203 | RF Choke | S-49738 | |
| L204 | RF Choke | S-49738 | | L204 | RF Choke | 20-797 | |
| L205 | Mixer Plate | S-50720 | | L205 | Mixer Plate | S-50720 | |

MISCELLANEOUS

| ITEM No. | PART NAME | ZENITH PART No. | NOTES |
|----------|-------------------------|----------------------|----------------------|
| M201 | Antenna Filter Assembly | S-54086 S-49191 * | (* Early production) |

ALIGNMENT INSTRUCTIONS VHF TUNER 175-306, -175-308

PRE-ALIGNMENT INSTRUCTIONS

The High Voltage lead should be securely taped and kept away from the chassis.
Allow a 20 minute warm-up period for the receiver and test equipment.
Suggested Alignment Tools: A201, A202, A203 GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089
WALSCO #2512, 2525, 2528
A204 thru A215 GENERAL CEMENT #8282, 8606, 8606L, 9091
WALSCO #2526, 2541, 2542, 2543, 2544

VHF RF AND MIXER ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.
The generator output lead should be terminated with its characteristic impedance, usually 50 ohms.
Use only enough sweep generator output to provide a usable pattern on scope.
Use 10MC sweep unless otherwise noted.
Connect the negative lead of a 4.5 volt bias supply to point \diamond . Positive to chassis.

| | SWEEP GENERATOR COUPLING | SWEEP GENERATOR FREQUENCY | MARKER GENERATOR FREQUENCY | CHANNEL | CONNECT SCOPE | ADJUST | REMARKS |
|----|--|---|--|--|--|--|---|
| 1. | Across antenna terminals with 120Ω in each lead. | 195MC | 193.25MC 197.75MC | 10 | Vert. Amp. thru 10K to point \diamond . Low side to chassis. | A201, A202, A203 | Adjust A201 and A202 for maximum amplitude and symmetry with markers as shown in Fig. 201. Increase bias for MINIMUM amplitude of response curve. Without changing the bias, adjust A203 to obtain MINIMUM response on the scope. |
| 2. | " | 213MC 207MC 201MC 195MC 189MC 183MC 177MC 85MC 79MC 69MC 63MC 57MC | 211.25MC 215.75MC 205.25MC 209.75MC 199.25MC 203.75MC 193.25MC 197.75MC 187.25MC 191.75MC 181.25MC 185.75MC 175.25MC 179.75MC 83.25MC 87.75MC 77.25MC 81.75MC 67.25MC 71.75MC 61.25MC 65.75MC 55.25MC 59.75MC | 13 12 11 10 9 8 7 6 5 4 3 2 | | A204 A205 A206 A207 A208 A209 A210 A211 A212 A213 A214 A215 | Adjust for maximum amplitude of response similar to Fig. 201. Adjust by expanding or compressing coil turns. |

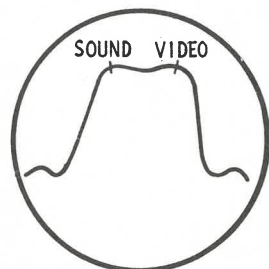
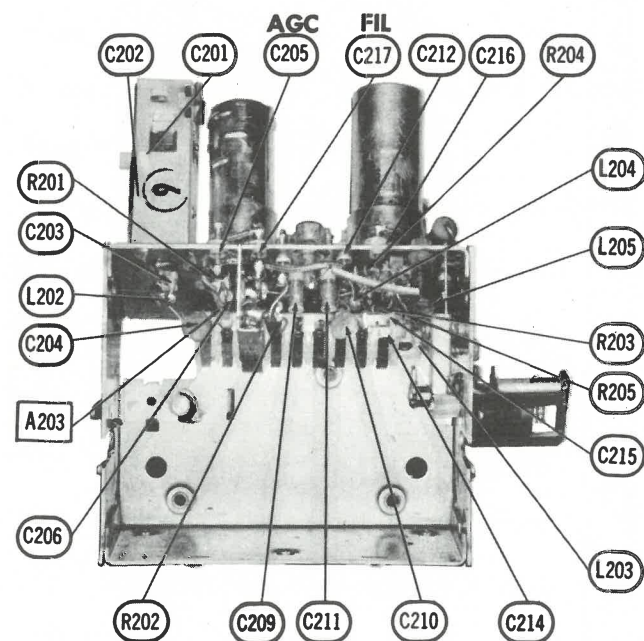


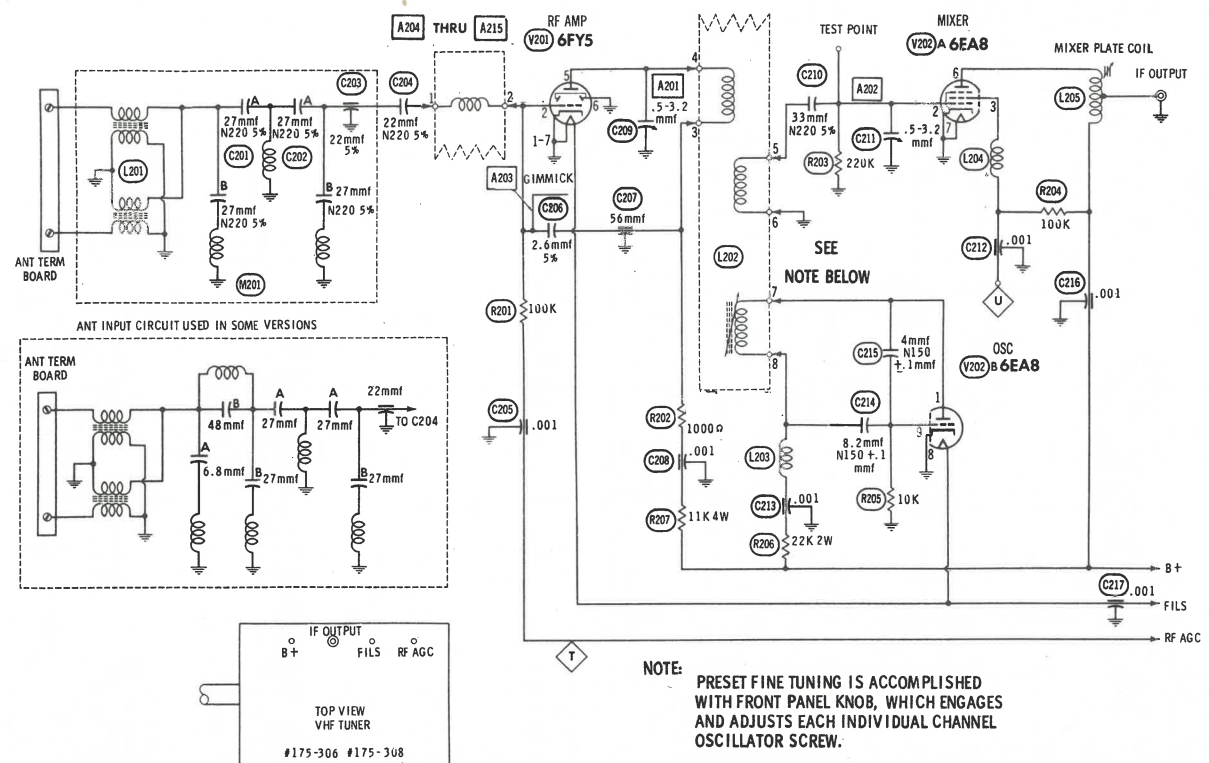
FIG. 201

VHF OSCILLATOR ADJUSTMENT

The Fine Tuning mechanically engages oscillator slug for adjustment on channel used (one for each channel).

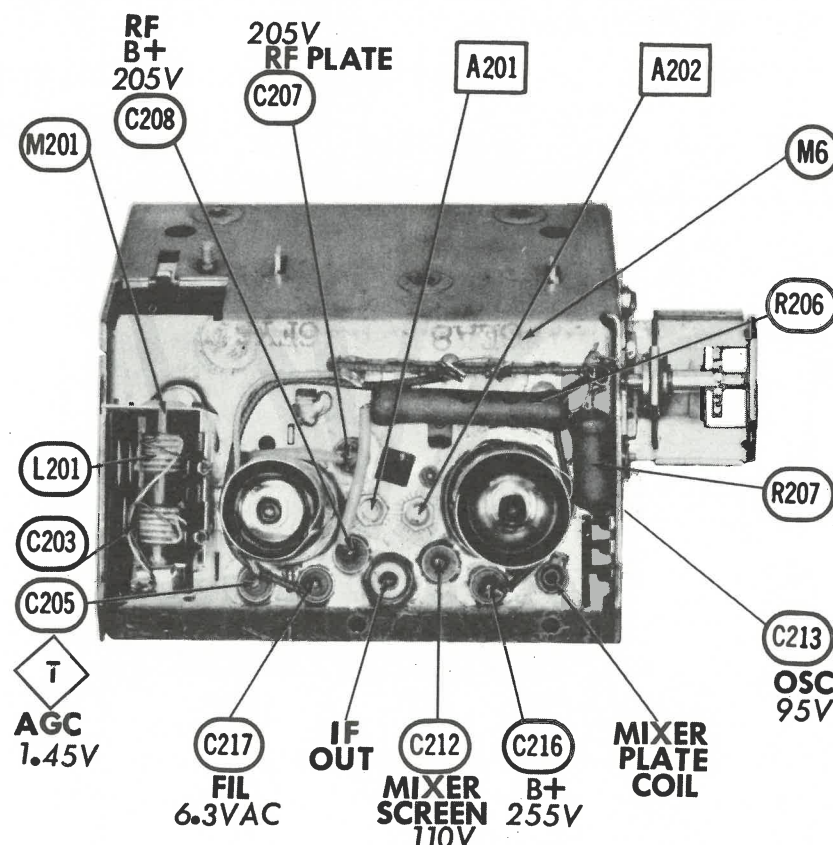


VHF TUNER 175-306 - SIDE VIEW



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12 POSITION TURRET-TYPE VHF TUNER 175-306, -308

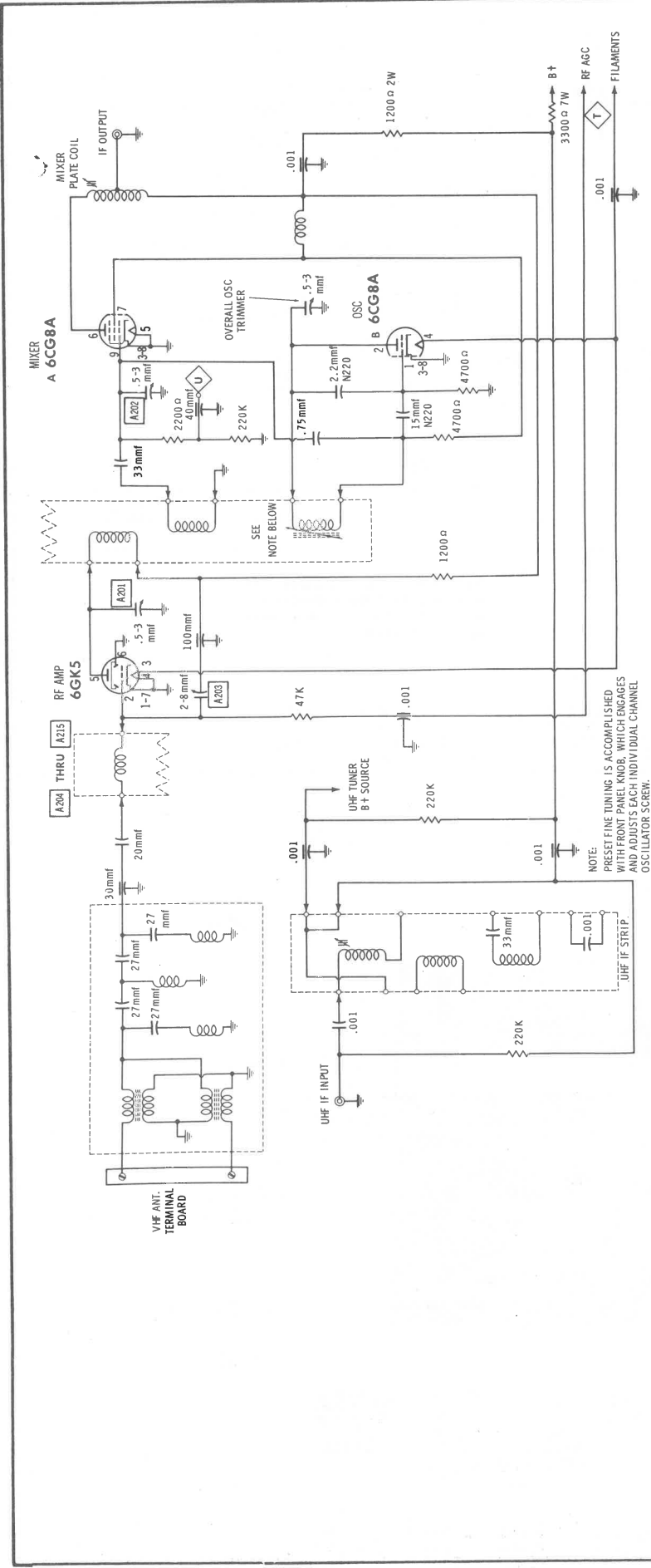


VHF TUNER 175-306 - TOP VIEW

SET 607 FOLDER 2

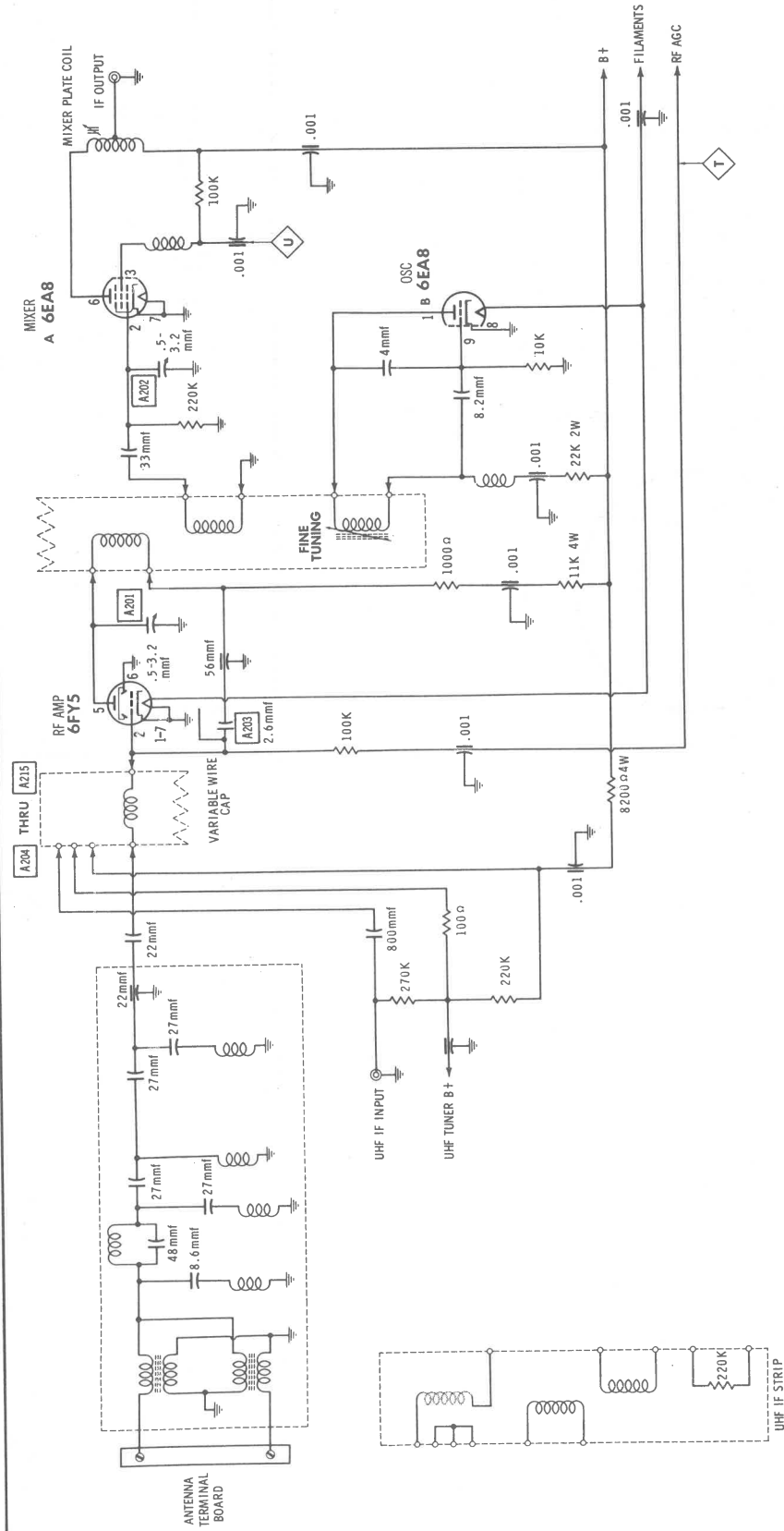
ZENITH CHASSIS 16J22, Q,
Q5, U, 16J23, Q, Q5, U

FOLDER 2



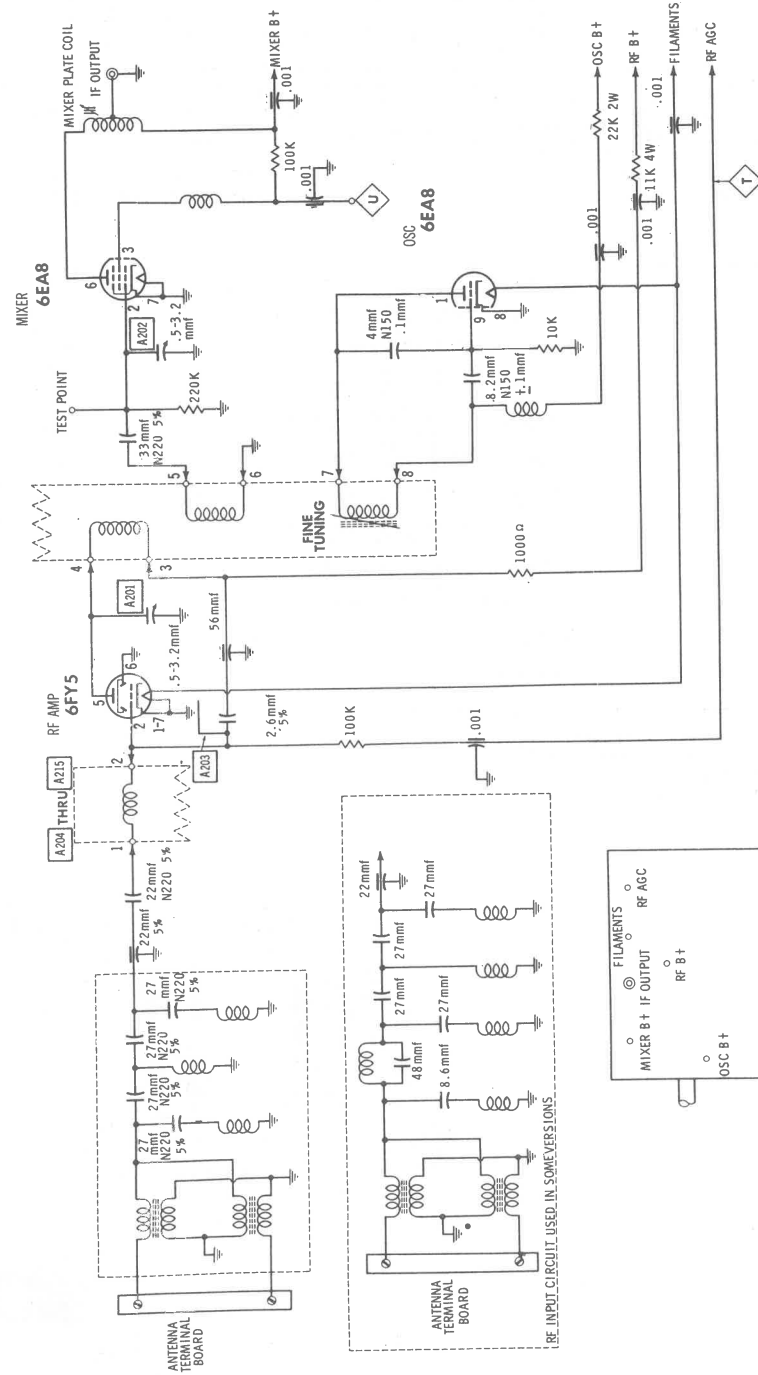
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13 POSITION TURRET-TYPE VHF TUNER 175-401, -417



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13 POSITION TURRET-TYPE VHF TUNER 175-307, -313



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12 POSITION TURRET-TYPE VHF TUNER 175-314, -322

CABINETS & CABINET PARTS
(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

| DESCRIPTION | PART NO. | CABINET NO. | | | | | | | | | | | | | | | | | | | |
|-----------------------|------------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | | MODEL NO. | 14-1199 | 14-1200 | 14-1201 | 14-1202 | 14-1203 | 14-1204 | 14-1205 | 14-1206 | 14-1207 | 14-1208 | 14-1209 | 14-1210 | 14-1211 | 14-1212 | 14-1213 | 14-1214 | 14-1215 | 14-1216 | 14-1217 |
| Safety Glass | 192-306 | J2707R, RU | | | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3583 | J2707Y, YU | X | X | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3582 | J2717R, RU | | | X | X | | | | | | | | | | | | | | | |
| Escutcheon | 57-3581 | J2717W, WU | | | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3572 | J2735E, EU | | | X | X | X | X | | | | | | | | | | | | | |
| Escutcheon | 57-3572 | J2735L, LU | | | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3702 | J2735R, RU | | | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3587 | J2735W, WU | | | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3385 | J2736E, EU | | | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3683 | J2736W, WU | | | | | | | | | | | | | | | | | | | |
| Channel Selector Knob | 46-2977 | J2736R, RU | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Channel Selector Knob | 46-2351, S-53116 | J2736W, WU | | | | | | | | | | | | | | | | | | | |
| Channel Selector Knob | S-53116 | J2737R, RU | | | | | | | | | | | | | | | | | | | |
| Channel Selector Knob | 46-2704 | J2737W, WU | | | | | | | | | | | | | | | | | | | |
| Channel Selector Knob | 46-2976 | J2738E, EU | | | | | | | | | | | | | | | | | | | |
| Fine Tuning Knob | S-54652 | J2738W, WU | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Fine Tuning Knob | S-53118 | J2739R, RU | | | | | | | | | | | | | | | | | | | |
| Fine Tuning Knob | S-53118 | J2739W, WU | | | | | | | | | | | | | | | | | | | |
| Fine Tuning Knob | S-52904 | J2740R, RU | | | | | | | | | | | | | | | | | | | |
| UHF Dial Knob | S-48228 | J2740W, WU | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| UHF Tuning Knob | S-48229 | J2741E, EU | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| UHF Tuning Knob | S-54489 | J2741W, WU | | | | | | | | | | | | | | | | | | | |
| Volume Knob | S-54961 | J2741R, RU | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Volume Knob | S-45716 | J2741W, WU | | | | | | | | | | | | | | | | | | | |
| Brightness Knob | S-55019 | J2741R, RU | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Brightness Knob | S-50939 | J2741W, WU | | | | | | | | | | | | | | | | | | | |
| Contrast Knob | S-55379 | J2741R, RU | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Contrast Knob | S-51728 | J2741W, WU | | | | | | | | | | | | | | | | | | | |
| Horiz. Hold Knob | 46-2998 | J2741R, RU | | | | | | | | | | | | | | | | | | | |
| Horiz. Hold Knob | 46-2509 | J2741W, WU | | | | | | | | | | | | | | | | | | | |
| Vert. Hold Knob | S-55019 | J2741R, RU | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Vert. Hold Knob | S-50939 | J2741W, WU | | | | | | | | | | | | | | | | | | | |
| Tone Knob | S-55019 | J2741R, RU | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Tone Knob | S-50939 | J2741W, WU | | | | | | | | | | | | | | | | | | | |

| DESCRIPTION | PART NO. | CABINET NO. | | | | | | | | | | | | | | | | | | | |
|-----------------------|----------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | | MODEL NO. | 14-1178 | 14-1179 | 14-1180 | 14-1181 | 14-1182 | 14-1183 | 14-1184 | 14-1185 | 14-1186 | 14-1187 | 14-1188 | 14-1189 | 14-1190 | 14-1191 | 14-1192 | 14-1193 | 14-1194 | 14-1195 | 14-1196 |
| Safety Glass | 192-306 | J340E | | | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3581 | J340W | | | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3572 | J341E | | | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3585 | J341W | | | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3154 | J341R | | | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3684 | J341W | | | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3216 | J342E | | | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3703 | J342R | | | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3586 | J342W | | | | | | | | | | | | | | | | | | | |
| Escutcheon | 57-3685 | J343E | | | | | | | | | | | | | | | | | | | |
| Channel Selector Knob | 46-2977 | J343W | | | | | | | | | | | | | | | | | | | |
| Channel Selector Knob | S-53116 | J343R | | | | | | | | | | | | | | | | | | | |
| Channel Selector Knob | 46-2976 | J343W | | | | | | | | | | | | | | | | | | | |
| Channel Selector Knob | 46-2510 | J343R | | | | | | | | | | | | | | | | | | | |
| Channel Selector Knob | 46-2530 | J343W | | | | | | | | | | | | | | | | | | | |
| Fine Tuning Knob | S-54652 | J343R | | | | | | | | | | | | | | | | | | | |
| Fine Tuning Knob | S-53118 | J343W | | | | | | | | | | | | | | | | | | | |
| Fine Tuning Knob | S-53118 | J343R | | | | | | | | | | | | | | | | | | | |
| Fine Tuning Knob | S-53133 | J343W | | | | | | | | | | | | | | | | | | | |
| Fine Tuning Knob | S-53366 | J343R | | | | | | | | | | | | | | | | | | | |
| Fine Tuning Knob | S-51170 | J343W | | | | | | | | | | | | | | | | | | | |
| Fine Tuning Knob | S-50096 | J343R | | | | | | | | | | | | | | | | | | | |
| Fine Tuning Knob | S-56267 | J343W | | | | | | | | | | | | | | | | | | | |
| UHF Dial Knob | S-48228 | J343R | | | | | | | | | | | | | | | | | | | |
| UHF Tuning Knob | S-48229 | J343W | | | | | | | | | | | | | | | | | | | |
| UHF Tuning Knob | S-54489 | J343R | | | | | | | | | | | | | | | | | | | |
| Volume Knob | S-54961 | J343W | | | | | | | | | | | | | | | | | | | |
| Volume Knob | S-45716 | J343R | | | | | | | | | | | | | | | | | | | |
| Volume Knob | S-46726 | J343W | | | | | | | | | | | | | | | | | | | |
| Brightness Knob | S-55019 | J343R | | | | | | | | | | | | | | | | | | | |
| Contrast Knob | S-55379 | J343W | | | | | | | | | | | | | | | | | | | |
| Contrast Knob | S-50934 | J343R | | | | | | | | | | | | | | | | | | | |
| Horiz. Hold Knob | 46-2998 | J343W | | | | | | | | | | | | | | | | | | | |
| Horiz. Hold Knob | S-55019 | J343R | | | | | | | | | | | | | | | | | | | |
| Vert. Hold Knob | S-55019 | J343W | | | | | | | | | | | | | | | | | | | |
| Vert. Hold Knob | 46-2998 | J343R | | | | | | | | | | | | | | | | | | | |
| Tone Knob | S-55019 | J343W | | | | | | | | | | | | | | | | | | | |
| Tone Knob | S-55092 | J343R | | | | | | | | | | | | | | | | | | | |

PARTS LIST AND DESCRIPTIONS

TUBES

| ITEM No. | USE | TYPE | ITEM No. | USE | TYPE |
|----------|------------------------|------------|----------|----------------------------|---------------------|
| | | | | | |
| V1 | 1st Video IF Amp. | 6EH7/EF183 | V7 | Audio Output | 6BQ5/EL84 |
| V2 | 2nd Video IF Amp. | 6EH7/EF183 | V8 | Vert. Mult. - Vert. Output | 6EM7 |
| V3 | 3rd Video IF Amp. | EF184/6EJ7 | V9 | Horiz. AFC - Horiz. Osc. | 6GH8 |
| V4 | Video Output - | | V10 | Horiz. Output | 6DQ6B |
| V5 | Sound IF Amp. | 6GN8 | V11 | Damper | 6DE4 (6DM4, 6DQ4) * |
| V6 | AGC Keying - | | V12 | HV Rectifier | 1J3 |
| | Sync Sep. - Noise Lim. | 6HS8 | V13 | LV Rectifier | 3DG4 |
| | Audio Detector | 6BN6 | | | |

* Alternate

PICTURE TUBE

| ITEM No. | REPLACEMENT DATA | | | | | NOTES |
|----------|------------------|---------------------------|--------------|-------------------|-------------------|--------------------------------------|
| | ZENITH PART No. | GENERAL ELECTRIC PART No. | RCA PART No. | RAYTHEON PART No. | SYLVANIA PART No. | |
| V14 | 23ANP4 23BJP4 * | 23ANP4 ① | 23ANP4 ① | | 23ANP4 ② | ① Aluminized ② Silver Screen "85" |

* Used in Models T2025, W, WU; T2026H, HU, R, RU; T2027M, MU; T3025W; T3026H, R; T3027M; T3074L, W; J2705R, RU, Y, YU; J3308R, Y.

POWER RECTIFIERS & SIGNAL DIODES

| ITEM No. | CURRENT RATING (Measured) | ORIGINAL Part or Type No. | RECTIFIERS | | DIODES | NOTES |
|----------|---------------------------|---------------------------|--------------|-------------------------|--------|--|
| | | | RCA PART No. | SARKES TARZIAN PART No. | | |
| X1 | | 103-32 | | | | |
| X2 | | 103-23 | | | | Horizontal AFC Diode Video Detector Diode |

ELECTROLYTIC CAPACITORS

| ITEM No. | RATING | CAP. | VOLT. | REPLACEMENT DATA | | | | | |
|----------|--------|------|-------|------------------|------------------|---------------------------|---------------------------|------------------|------------------|
| | | | | ZENITH PART No. | AEROVOX PART No. | CORNELL-DUBILIER PART No. | GENERAL ELECTRIC PART No. | MALLORY PART No. | SPRAGUE PART No. |
| C1A | 40 | 400 | | 22-3137 | AFH84-57-93 | C0890 | XC3-41 | FP332.2 | TMT-3480 |
| C1B | 80 | 400 | | | | | | | |
| C1C | 100 | 50 | | | | | | | |
| C2A | 10 | 400 | | 22-3674 | | | | | |
| C2B | 4 | 150 | | | | | | | |
| C2C | 4 | 350 | | | | | | | |
| C3 | 1 | 350 | | 22-3495 | PRSL700 | BRI-450 | | | TVA-1700 |

FIXED CAPACITORS

| ITEM No. | RATING | REMARKS | REPLACEMENT DATA | | | | | | |
|----------|----------|-----------|------------------|--------------------|---------------------------|------------------|------------------|------------------|-----------|
| | | | AEROVOX PART No. | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | ELMENCO PART No. | MALLORY PART No. | SPRAGUE PART No. | |
| C4 | 470 | #22-2381 | BPD-00047 | DD-471 | BYA10T47 | CCD-471 | B-347 | 10TS-T47 | |
| C5 | .15 | | P288N-15 | | CUB2P15 | 2DP-3-154 | GEM-2015 | 2PS-P10 | |
| C6 | 6 | | | | C10V6C | | | 10TCN-T56 | |
| C7 | .01 | | 10% | DI-10000 | | PM681 | CCD-103 | GP110 | 10TS-S10 |
| C8A | 17 | | NPO 5% | | TCZ-18 | C10Q18C | | CNO-418 | 10TCC-Q18 |
| C8B | 17 | | NPO 5% | | TCZ-18 | C10Q18C | | CNO-418 | 10TCC-Q18 |
| C9 | .15 | | 200V | P288N-15 | | CUB2P15 | 2DP-3-154 | GEM-2015 | 2PS-210 |
| C10 | .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B-110 | 5HK-S10 |
| C11 | 8.5 | | ±.5mmf | NPO-DI 8.2 | | C10V82C | | | 10TCC-V82 |
| C12 | 1.2 | | | NPO-SI 1.5 | TCZ-IR5 | C10V15C | | CNO-515 | 10TCC-V12 |
| C13A | .001 | 10% | DI-1000 | DD-102 | PM6D1 | CCD-102 | GP210 | 10TS-D10 | |
| B | .001 | 10% | DI-1000 | DD-102 | PM6D1 | CCD-102 | GP210 | 10TS-D10 | |
| C14A | .001 | | BPD-001 | DD-102 | BYA10D1 | CCD-102 | B-210 | 5HK-D10 | |
| B | .001 | | BPD-001 | DD-102 | BYA10D1 | CCD-102 | B-210 | 5HK-D10 | |
| C15 | 100 | 5% | | DTZ-100 | C10T1C | CM-19B-101J | CNO-310 | 10TCP-T10 | |
| C16 | .0022 | 10% | DI-2200 | | PM6D22 | CP22-222 | CP22-222 | 10TS-D22 | |
| C17 | .001 | 10% | DI-1000 | DD-102 | | CCD-102 | GP210 | 10TS-D10 | |
| C18 | 5.5 N470 | ±.5mmf | #22-3221 | | | * | | | |
| C19 | 4.7 | | | NPO-SI 4.7 | DTZ-4R7 | C10V47C | CCTO-4R7 | CNO-547 | 10TCC-V47 |
| C20 | 4.7 | | | NPO-SI 4.7 | DTZ-4R7 | C10V47C | CCTO-4R7 | CNO-547 | 10TCC-V47 |
| C21 | .033 | 10% | | BE4S33 | | PM4S33 | 4DP-2-333 | GEM-1613 | 4PS-S33 |
| C22 | .47 | 5% | | | DTN-47 | C10Q47C | CM-19B-470J | CNO-447 | 10TCC-Q47 |
| C23 | 3.3 | | | NPO-SI 3.3 | DTZ-3R3 | C10V33C | CCTO-3R3 | CNO-447 | 10TCC-V33 |
| C24 | 50 | | | DI-50 | DD-500 | L10Q5 | CCD-500 | GP450 | 10TS-Q50 |
| C25 | 50 | | | DI-50 | DD-500 | L10Q5 | CCD-500 | GP450 | 10TS-Q50 |
| C26 | 27 | 10% | | DI-27 | DD-270 | L10Q27 | CCD-270 | GP427 | 10TS-Q27 |
| C27 | 10 | | | DI-10 | DD-100 | L10Q1 | CCD-100 | GP410 | 10TS-Q10 |
| C28 | .1 | 400V | P488N-1 | DF-104 | CUB4P1 | 4DP-3-104 | GEM-401 | 4TM-P10 | |
| C28 | .1 | 400V | P488N-1 | DF-104 | CUB4P1 | 4DP-3-104 | GEM-401 | 4TM-P10 | |
| C30 | .001 | 10% | DI-1000 | DD-102 | | CCD-102 | GP210 | 10TS-D10 | |
| C31 | .01 | 10% | DI-10000 | | | CCD-103 | GP110 | 10TS-S10 | |
| C32 | 4.3 | 5% | NPO-SI 4.7 | DTZ-4R7 | C10V47C | CCTO-4R7 | CNO-547 | 10TCC-V47 | |
| C33A | .001 | 10% | DI-1000 | DD-102 | | CCD-102 | GP210 | 10TS-D10 | |
| B | .001 | 10% | DI-1000 | DD-102 | | CCD-102 | GP210 | 10TS-D10 | |
| C34 | 7.5 | #22-2742 | | | | | | | |
| C35 | 20 | | 10% | DI-000022 | DD-200 | L10Q2 | CCD-200 | GP420 | 10TS-Q20 |
| C36 | 470 | | | DI-470 | DD-471 | BYA10T47 | CCD-471 | B-347 | 10TS-T47 |
| C37 | .01 | | | BPD-01 | DD-103 | BYA10S1 | CCD-103 | B-110 | 5HK-S10 |
| C38 | .0022 | | | BPD-0022 | DD-222 | BYA10D22 | CCD-222 | B-222 | 5HK-S22 |
| C39 | .1 | | 400V | P488N-1 | DF-104 | CUB4P1 | 4DP-3-104 | GEM-401 | 4PS-P10 |
| C40 | .0033 | | | BPD-0033 | DD-332 | BYA10D33 | CCD-332 | B-233 | 10TS-D33 |
| C41 | .220 | | 10% | DI-220 | DD-221 | L10T22 | CCS-221 | GP322 | 10TS-T22 |
| C42 | .0033 | | | BPD-0033 | DD-332 | BYA10D33 | CCD-332 | B-233 | 10TS-D33 |
| C43 | .1 | | 400V | P488N-1 | DF-104 | CUB4P1 | 4DP-3-104 | GEM-401 | 4PS-P10 |
| C44 | .0088 | 200V 10% | BE4868 | | PM6D88 | BDP-1-682 | GEM-16288 | 6PS-D88 | |
| C45 | .0022 | 400V 10% | BE4222 | | PM6B22 | BDP-1-222 | GEM-16222 | 6PS-D22 | |
| C46 | .1 | 400V | P488N-1 | DF-104 | P488N-1 | 4DP-3-104 | GEM-401 | 4PS-P10 | |
| C47 | .47 | 800V | P688N-1 | DF-104 | CUB6P1 | 6DP-4-104 | GEM-601 | 6TM-P10 | |
| C48 | .001 | 1000V 10% | DI-1000 | DD-102 | | CCD-102 | GP210 | 10TS-T10 | |
| C49 | .015 | 1000V 10% | BE10D15 | | DPMS10S15 | 16DP-4-153 | GEM-10115 | 10TM-S15 | |
| C50A | 51 | | BPD-00005 | DD-510 | C10Q51C | CCD-510 | GP450 | 10TCC-Q50 | |
| B | .001 | | BPD-00005 | DD-510 | C10Q51C | CCD-510 | GP450 | 10TCC-Q50 | |
| C51A | .001 | | BPD-2X.001 | DD3-102 | BYD6DD1 | CCD-102 | B-210 | 5HK-2D10 | |
| B | .001 | | | | | CCD-102 | B-210 | | |
| C52 | 470 | 1000V | DI-470 | DD-471 | BYA10T47 | CCD-471 | B-347 | 10TS-T47 | |

