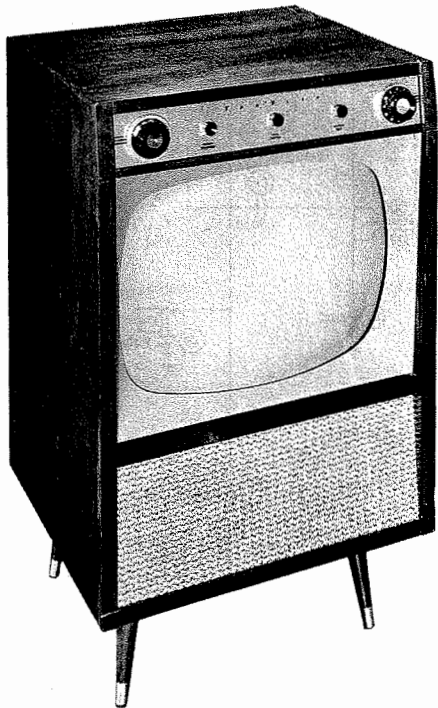




DISASSEMBLY
INSTRUCTIONS

- CHASSIS REMOVAL**
1. Remove 7 push-on type control knobs from front panel of cabinet.
 2. Remove 7 wood screws and 3 metal screws. Remove rear cover.
 3. Remove picture tube socket, HV lead yoke plug and speaker leads.
 4. Remove 3 wood screws holding chassis with mounting board. Remove chassis.
 5. Remove 8 speaker nuts. Remove 2 speakers.



MODEL	CHASSIS
621-25	412M6

SERVICING IN THE FIELD

- TUNER OSCILLATOR ADJUSTMENTS**

Touch-up adjustments of the VHF tuner oscillator circuit may be accomplished by removing the channel selector and fine tuning knobs.

PICTURE TUBE SAFETY GLASS CLEANING

For picture tube safety glass cleaning, it is necessary to remove chassis. (See disassembly instructions).

SERVICE ADJUSTMENT LOCATION

See tube placement chart on page 5.

HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

Adjustment of the horizontal oscillator can be made from the rear panel of the chassis. Adjust the horizontal hold slug until the picture synchronizes horizontally.
- SOUND IF DETECTOR BUZZ ADJUSTMENT**

To eliminate sound IF detector buzz, adjust the ratio detector secondary (A10) located on top of the chassis for maximum sound and minimum buzz.

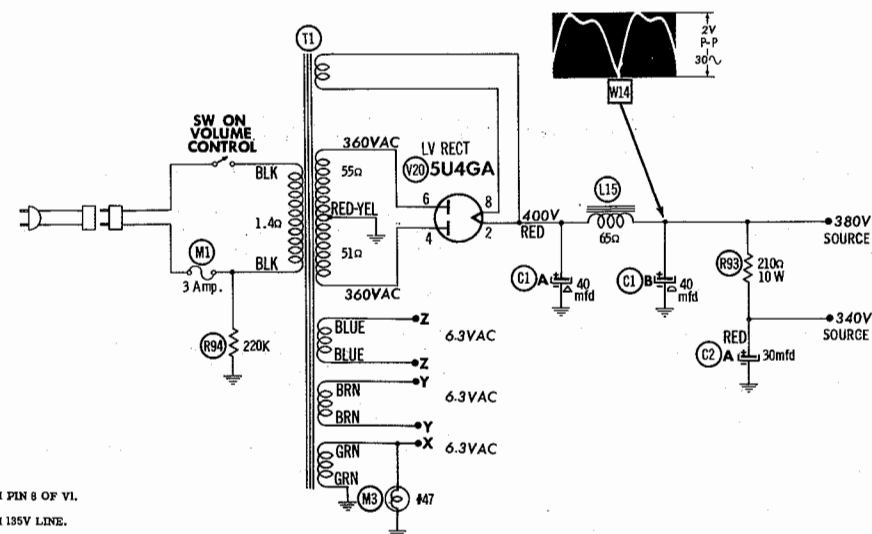
FUSES

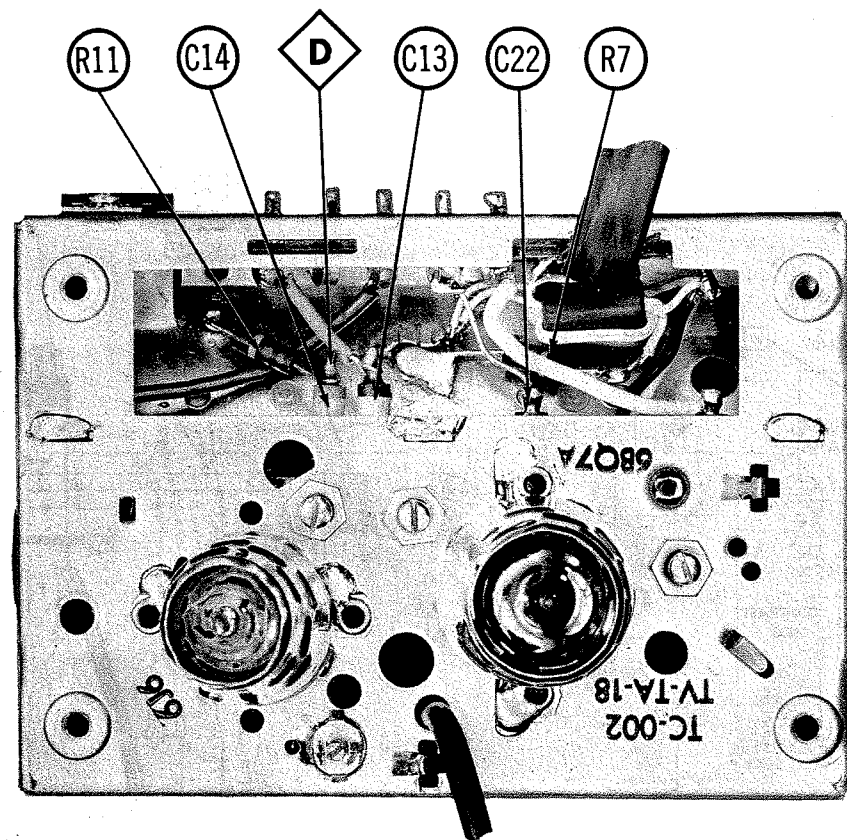
Two fuses are used. One for horizontal sweep circuit protection and one for LV power supply protection. (For location, see tube placement chart).

CENTERING

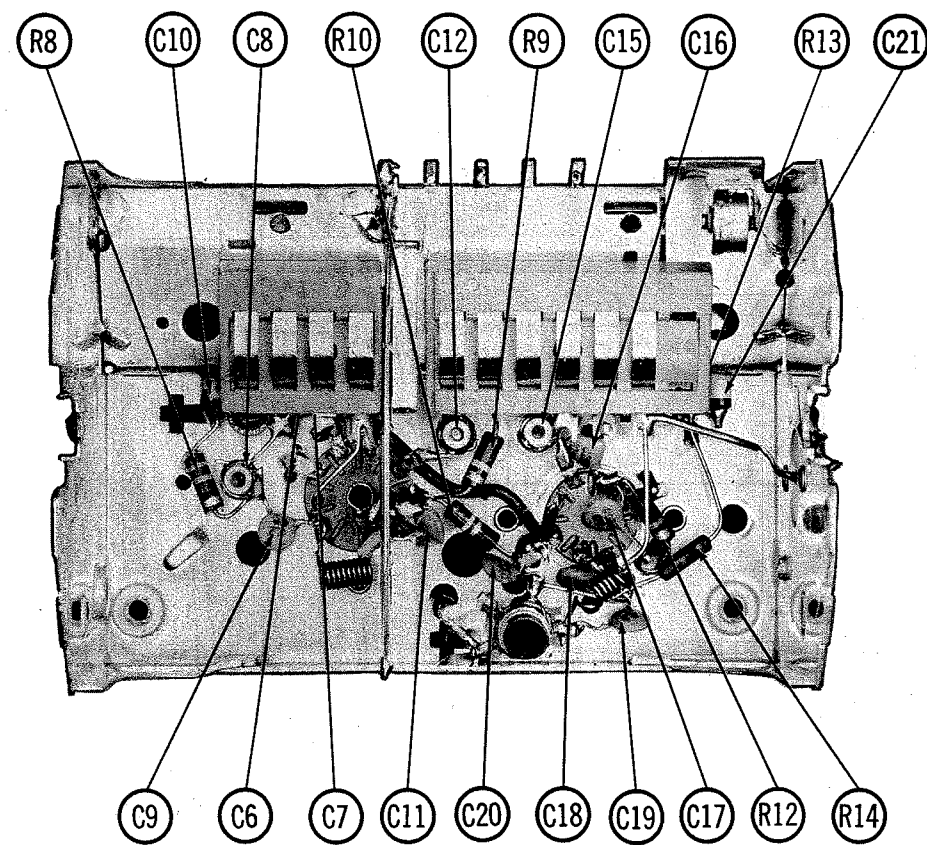
Centering is accomplished mechanically by adjusting two magnetic rings around the neck of the picture tube, located flush against the deflection yoke. Rotate the two rings around the neck of the tube until the picture is properly centered.

TRAV-LER MODELS 621-20, -21,
-22, -25, -26 (Ch. 412M6)

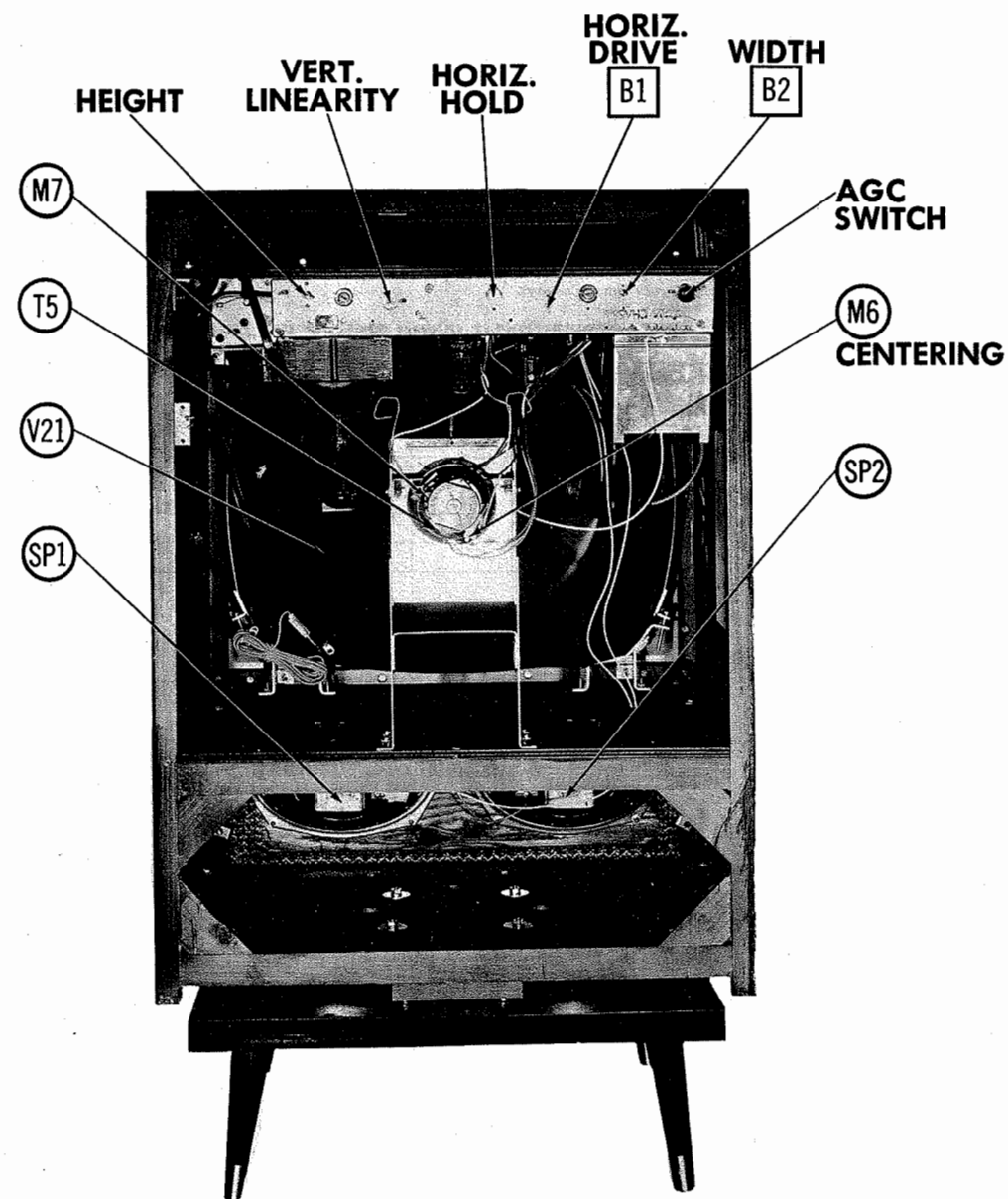




RF TUNER-TOP VIEW



RF TUNER-BOTTOM VIEW



CABINET-REAR VIEW

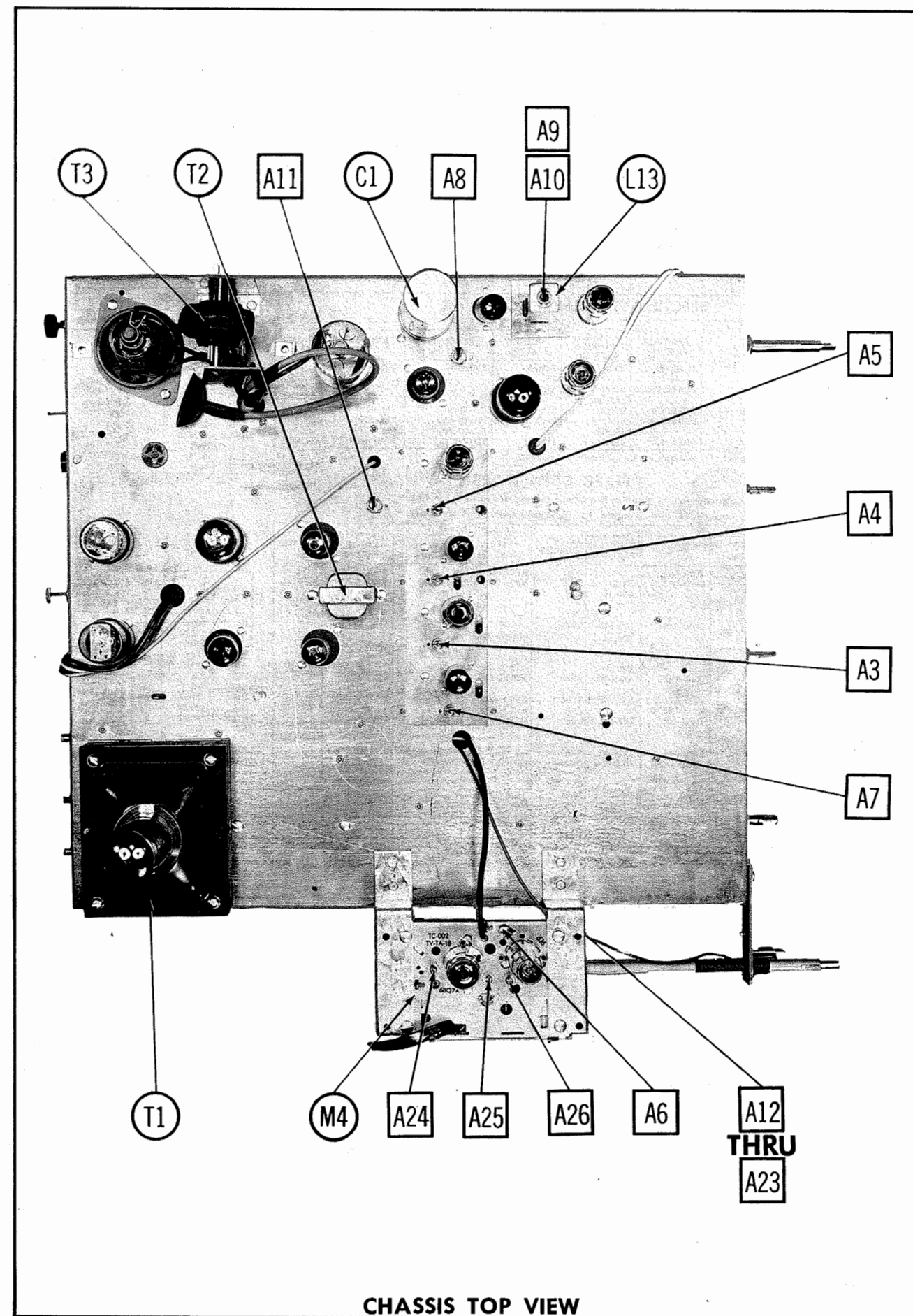
HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Turn the set on and tune in a TV station, preferably with a test pattern. Adjust the horizontal drive trimmer (B1) counter clockwise as far as possible without the presence of vertical white lines or compression near the center of the picture.

Turn the horizontal hold until the picture synchronizes horizontally. Adjust the width slug (B2) for a picture slightly wider than necessary to fill the picture mask horizontally.

Momentarily remove the signal by switching off channel and back again. If the picture does not pull into sync, slightly retouch the hold adjustment.

Repeat this procedure until proper sync action is obtained.



CHASSIS TOP VIEW

SET 334 FOLDER 10

TRAV-LER MODELS 621-20,
-21, -22, -25, -26 (Ch. 412M6)

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES	ITEM No.	USE	TYPE	NOTES
V1	RF Amp.	6BQ7A		V11	Audio Output	6Y6GT	
V2	Mixer-Osc.	6B6		V12	Sync Sep.	6C4	
V3	1st Video IF Amp.	6CB6		V13	Sync Amp.-Horiz. AFC	6SN7GT	
V4	2nd Video IF Amp.	6CB6		V14	Vert. Osc.	6C4	
V5	3rd Video IF Amp.	6AU6		V15	Vert. Output	68A	
V6	Video Det. & AGC Rect.	6AL5		V16	Horiz. Mult.	6SN7GT	
V7	Video Output	6AH6		V17	Horiz. Output	6CU6	
V8	Sound IF Amp.	6AU6		V18	Damper	6W4GT	
V9	Ratio Det.	6AL5		V19	HV Rectifier	18XGT	
V10	AF Amp.	6AV6		V20	LV Rectifier	5U4GA	

PICTURE TUBE

ITEM No.	REPLACEMENT DATA	NOTES
V21	21AUP4A ① 21AUP4A ②	① Aluminized ② Silver Screen "85"

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA	NOTES
C1A	450	TV-EC-16	
C1B	450	TV-EC-16	
C2A	30	TV-EC-25	
C2B	200	TV-EC-25	
C3A	10	TV-EC-20	
C3B	450	TV-EC-17	
C4A	50	TV-EC-17	
C4B	50	TV-EC-17	
C5	100	TV-EC-17	

Note 1: Some versions may use a 25 volt unit in this application. (part #TV-EC-27)
*Non-catalog item.

FIXED CAPACITORS

Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING	REPLACEMENT DATA	NOTES
C6	6.8	NP0-D16.8	
C7	6.8	NP0-D16.8	
C8	2-10	TCZ-6R8	
C9	2.2	TCZ-6R8	
C10	1000	TCZ-6R8	
C11	1000	TCZ-6R8	
C12	5-3	TCZ-6R8	
C13	1000	TCZ-6R8	
C14	60	TCZ-6R8	
C15	1.5-3	TCZ-6R8	
C16	20	TCZ-6R8	
C17	10	TCZ-6R8	
C18	2.2	TCZ-6R8	
C19	8.2	TCZ-6R8	
C20	1000	TCZ-6R8	
C21	1000	TCZ-6R8	
C22	1000	TCZ-6R8	
C23	1000	TCZ-6R8	
C24A	1000	TCZ-6R8	
C25	1.25	TCZ-6R8	
C26	100	TCZ-6R8	
C27	1000	TCZ-6R8	
C28A	1000	TCZ-6R8	
C29	100	TCZ-6R8	
C30	47	TCZ-6R8	
C31A	1000	TCZ-6R8	
C32	5000	TCZ-6R8	
C33	47	TCZ-6R8	
C34	100	TCZ-6R8	
C35	100	TCZ-6R8	
C36	1.1	TCZ-6R8	
C37	4.7	TCZ-6R8	
C38A	1000	TCZ-6R8	
C39	5000	TCZ-6R8	
C40	.25	TCZ-6R8	
C41	.1	TCZ-6R8	
C42	10	TCZ-6R8	
C43	.1	TCZ-6R8	
C44	1	TCZ-6R8	
C45	33	TCZ-6R8	
C46	5000	TCZ-6R8	
C47	5000	TCZ-6R8	
C48	5000	TCZ-6R8	
C49	47	TCZ-6R8	
C50	1000	TCZ-6R8	
C51	2200	TCZ-6R8	
C52	.05	TCZ-6R8	
C53	.01	TCZ-6R8	
C54	100	TCZ-6R8	
C55	.005	TCZ-6R8	
C56	.02	TCZ-6R8	
C57	.005	TCZ-6R8	
C58	.02	TCZ-6R8	
C59	220	TCZ-6R8	
C60	4700	TCZ-6R8	
C61	.01	TCZ-6R8	
C62A	2000	TCZ-6R8	
C63	4700	TCZ-6R8	
C64	.25	TCZ-6R8	
C65	2200	TCZ-6R8	
C66	10000	TCZ-6R8	
C67	680	TCZ-6R8	
C68	.25	TCZ-6R8	
C69	.005	TCZ-6R8	

PARTS LIST AND DESCRIPTIONS

CAPACITORS (cont)

ITEM No.	RATING	REPLACEMENT DATA	NOTES
C70	390	TV-MC-12	
C71	3900	TV-MC-12	
C72	470	TV-MC-12	
C73	470	TV-MC-12	
C74	.1	TV-MC-12	
C75	.05	TV-MC-12	
C76	10000	TV-MC-12	
C77	5000	TV-MC-12	
C78	.25	TV-MC-12	
C79	.1	TV-MC-12	
C80	220	TV-MC-12	
C81	47	TV-MC-12	
C82	47	TV-MC-12	

† Items C62A, C62B, C62C, R66A, R66B and R66C are combined in one unit.
Note 2: Some versions may use an individual unit (part #TV-CC-2) in this application.

CONTROLS

ITEM No.	RATING	REPLACEMENT DATA	INSTALLATION NOTES
R1A	1000Ω	VC-60	Contrast (Panel)
R1B	1MΩ	VC-60	Volume (Rear)
R2A	100K	VC-62	Brightness
R2B	100K	VC-62	Brightness
R3A	250K	VC-78	Attach to R2A
R3B	250K	VC-78	Attach to R2A
R4A	1.5MΩ	VC-63	Attach to R3A
R4B	1.5MΩ	VC-63	Attach to R3A
R5A	2.5MΩ	VC-59	Attach to R4A
R5B	2.5MΩ	VC-59	Attach to R4A
R6A	5000Ω	VC-29	Attach to R5A
R6B	5000Ω	VC-29	Attach to R5A

* Concentric Equivalent: K-2 Kit, Base Elements & Shafts: B11-108 & P1-204 (Panel), B13-137 & R2-216 (Rear), 76-1 Switch

RESISTORS

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

ITEM No.	RATING	REPLACEMENT DATA	NOTES
R7	680K	BTS-680K	
R8	4700Ω	BTS-4700	
R9	560K	BTS-560K	
R10	820K	BTS-820K	
R11	220K	BTS-220K	
R12	10K	BTS-10K	
R13	10K	BTS-10K	
R14	1000Ω	BTS-1000	
R15	4700Ω	BTS-4700	
R16	4700Ω	BTS-4700	
R17	100Ω	BTS-100	
R18	100K	BTS-100K	
R19	470K	BTS-470K	
R20	100K	BTS-100K	
R21	8200Ω	BTS-8200	
R22	100Ω	BTS-100	
R23	47Ω	BTS-47	
R24	100K	BTS-100K	
R25	22K	BTS-22K	
R26	100Ω	BTS-100	
R27	47Ω	BTS-47	
R28	22K	BTS-22K	
R29	47K	BTS-47K	
R30	1000Ω	BTS-1000	
R31	220Ω	BTS-220	
R32	6800Ω	BTS-6800	
R33	680K	BTS-680K	
R34	1MΩ	BTS-1MΩ	
R35	4700Ω	BTS-4700	
R36	15K	BTS-15K	
R37	470K	BTS-470K	
R38	56K	BTS-56K	
R39	4700Ω	BTS-4700	
R40	68K	BTS-68K	
R41	220K	BTS-220K	
R42	4700Ω	BTS-4700	
R43	2200Ω	BTS-2200	
R44	100K	BTS-100K	
R45	470K	BTS-470K	
R46	68K	BTS-68K	
R47	12K	BTS-12K	
R48	68K	BTS-68K	
R49	33K	BTS-33K	
R50	470Ω	BTS-470	
R51	6800Ω	BTS-6800	

† Items R66A, R66B, R66C, C62A, C62B and C62C are combined in one unit.

TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA	NOTES
T1	117VAC ① 1.6A	TV-TR-13	

① Drill one new mounting hole.

TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA	NOTES
T2	Vert. Osc. Trans.	TV-TR-10	
T3	Horiz. Output Trans.	TV-TR-15	
T4	Vert. Output Trans.	TV-TR-8	
T5A	Yoke-Horiz. (10MH)	TV-L-52	
T5B	Vert. (30MH)	TV-L-52	
T6	Width Coil (45-4.4MH)	TV-L-52	

① Drill new mounting hole(s).
② Use original mounting bracket.
③ Use original term board.
④ Requires new centering device.
⑤ Connect horiz. damping network across terms #3 and #7. Use original if necessary.
⑥ Use original yoke damping network.
⑦ Do not use tap.

*HORIZONTAL OUTPUT TRANSFORMER CONNECTION DATA

ORIGINAL TERMINAL CONNECTIONS	REPLACEMENT CONNECTIONS	REPLACEMENT CONNECTIONS	REPLACEMENT CONNECTIONS	REPLACEMENT CONNECTIONS	REPLACEMENT CONNECTIONS	REPLACEMENT CONNECTIONS	REPLACEMENT CONNECTIONS
9	9	9	9	9	9	9	9
8	8	8	8	8	8	8	8
7	7	7	7	7	7	7	7
6	6	6	6	6	6	6	6
5	5	5	5	5	5	5	5
4	4	4	4	4	4	4	4

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA	NOTES
T7	5.7K 3-4Ω	TV-AT-17	

SPEAKER

ITEM No.	RATINGS	REPLACEMENT DATA	NOTES
SP1	6"X 9" PM	TV-SPK-45	
SP2	6"X 9" PM	TV-SPK-45	

COILS (RF-IF)

ITEM No.	USE	DC RES.	REPLACEMENT DATA	NOTES
L1	1st Video IF	.1Ω	TV-L-38	
L2	2nd Video IF	.1Ω	TV-L-22	
L3	3rd Video IF	.1Ω	TV-L-13A	
L4	4th Video IF	.1Ω	TV-L-22	
L5	5th Video IF	.1Ω	TV-L-42B	
L6	6th Video IF	.1Ω	TV-L-42C	
L7	RF Choke	3.2Ω	TV-L-20	
L8	Series Peaking Coil	5Ω	TV-L-14	
L9	Series Peaking Coil	7.3Ω	TV-L-31	
L10	Shunt Peaking Coil	17Ω	TV-L-32A	
L11	4.5MC Trap	1.7Ω	TV-L-16B	
L12	Sound IF	1.7Ω	TV-L-16A	
L13	Ratio Det.	3.6Ω	TV-L-17	

* Drill new mounting hole.
* Parallel with 10K, 1W resistor

TRANSFORMER (HORIZ. OSC.)

ITEM No.	DC RES.	REPLACEMENT DATA	NOTES
L14	155Ω	TV-L-18	

* Drill new mounting hole.

FILTER CHOKE

ITEM No.	RATINGS	REPLACEMENT DATA	NOTES
L15	TOTAL DIRECT CURRENT 2.00A	TV-FC-1	

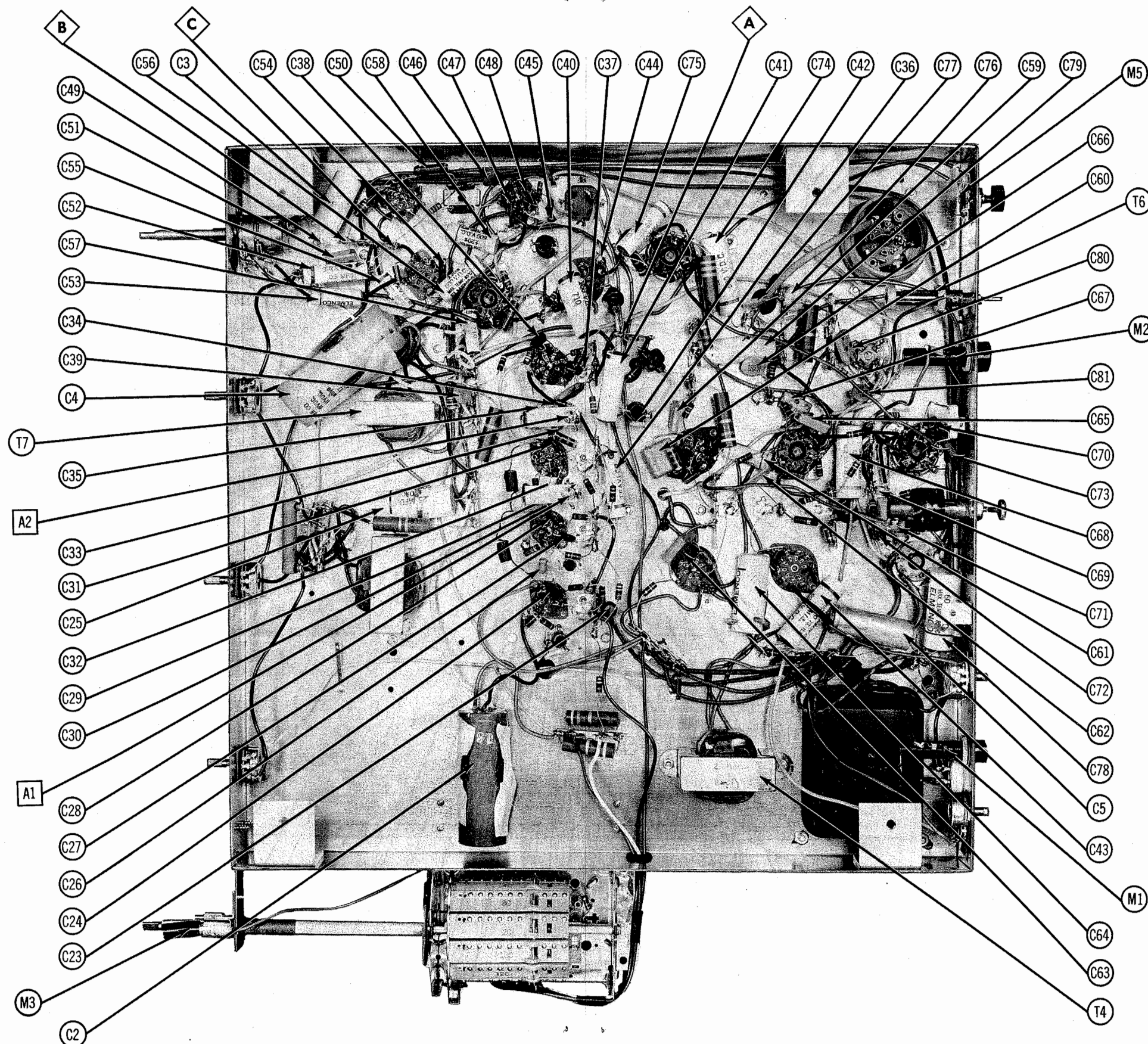
FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA	NOTES
M1	3AG	3A	TV-FC-1	
M2	3AG	3A	TV-FC-1	

MISCELLANEOUS

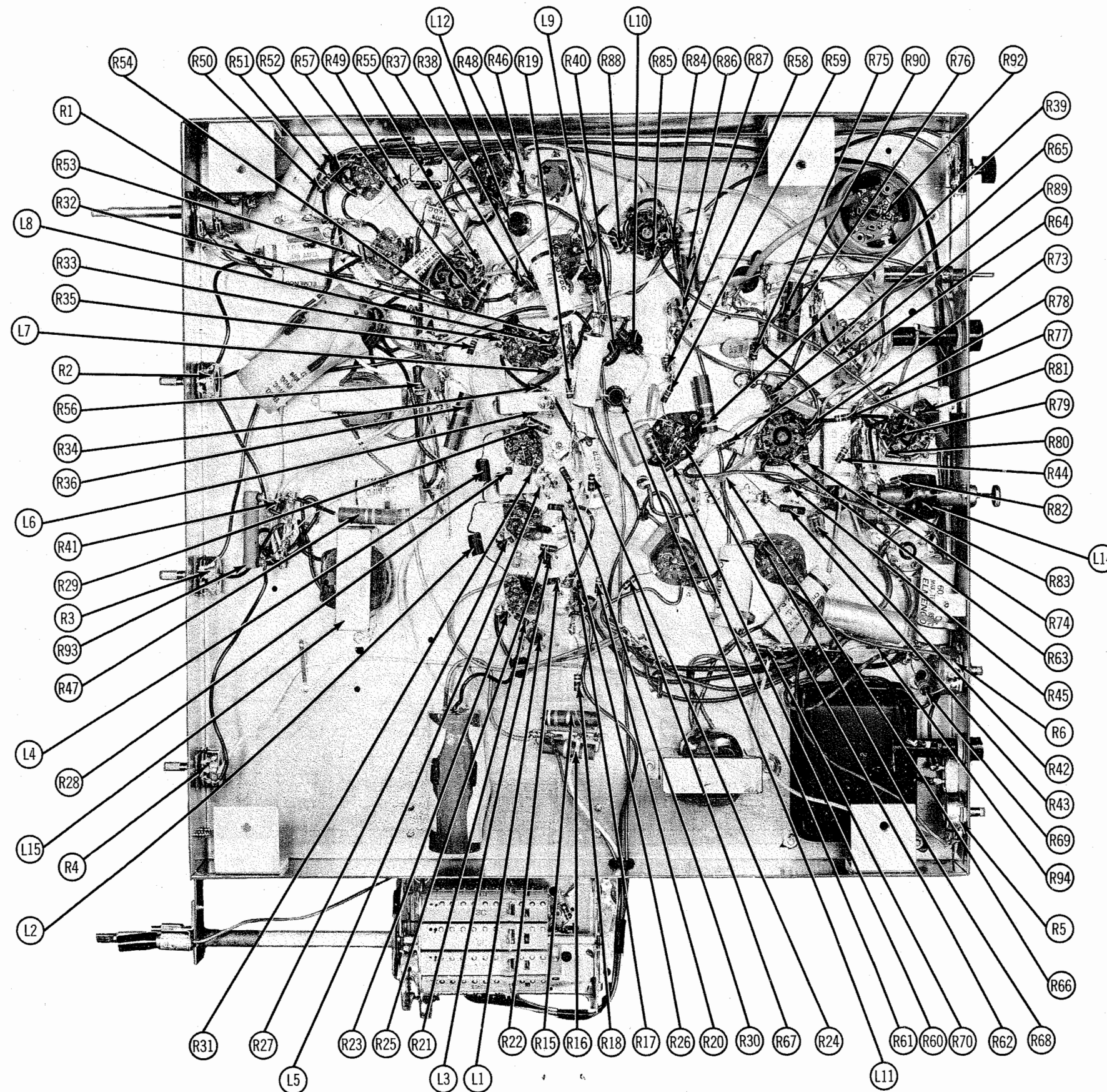
ITEM No.	PART NAME	REPLACEMENT DATA	NOTES
M3	Dial Light	TA-18	
M4	Tuner	TA-18	
M5	Switch	TA-18	
M6	Centering Device	TA-18	
M7	Ion Trap	TA-18	
B1	Trimmer Cap.	TC-11	

TRAV-LER MODELS 621-20,
-21, -22, -25, -26 (Ch. 412M6)



CHASSIS BOTTOM VIEW-CAPACITOR AND ALIGNMENT IDENTIFICATION

TRAV-LER MODELS 621-20,
-21, -22, -25, -26 (Ch. 412M6)



CHASSIS BOTTOM VIEW-RESISTOR AND INDUCTOR IDENTIFICATION

TRAV-LER MODELS 621-20,
-21, -22, -25, -26 (Ch. 412M6)

RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6BQ7A	INF	2Meg	0Ω	0Ω	.1Ω	†9500Ω	350K	INF	0Ω
V2	6J6	■10K	■1000Ω	0Ω	.1Ω	220K	10K	0Ω		
V3	6CB6	2Meg	47Ω	0Ω	.1Ω	■100Ω	■100Ω	0Ω		
V4	6CB6	2Meg	47Ω	0Ω	.1Ω	■100Ω	■100Ω	0Ω		
V5	6AU6	22K	0Ω	0Ω	.1Ω	■1000Ω	■1000Ω	220Ω		
V6	6AL5	3.2Ω	680K	.1Ω	0Ω	4700Ω	0Ω			
V7	6AH6	470K	0Ω	0Ω	.1Ω	†5000Ω	15K	●160Ω		
V8	6AU6	68K	15K	15K	15K	†12K	†12K	■68Ω		
V9	6AL5	INF	INF	0Ω	.1Ω	6800Ω	0Ω	7300Ω		
V10	6AV6	2.2Meg	0Ω	.1Ω	0Ω	NC	NC	■470K		
V11	6V6GT	NC	15K	†1000Ω	†650Ω	470K	TP	15K	■220Ω	
V12	6C4	†150K	TP	0Ω	.1Ω	†150K	2.2Meg	0Ω		
V13	6SN7GT	1Meg	†5800Ω	2700Ω	200K	33K	100K	0Ω	.1Ω	
V14	6C4	●†900K	NC	0Ω	.1Ω	●†900K	●1.5Meg	0Ω		
V15	6S4	NC	●1200Ω	1Meg	0Ω	.1Ω	1Meg	NC	NC	†1200Ω
V16	6SN7GT	300K	†5800Ω	1500Ω	100K	†160K	1500Ω	0Ω	.1Ω	Top Cap ■7Ω
V17	6CU6	†NC	.1Ω	NC	†40K	470K	TP	0Ω	47Ω	
V18	6W4GT	NC	NC	INF	NC	†275Ω	NC	INF	INF	
V19	1B3GT	PINS 1 - 8 HAVE INFINITE RESISTANCE								Top Cap ■270Ω
V20	5U4GA	INF	90K	INF	51Ω	INF	55Ω	INF	90K	
V21	21AUP4A	0Ω	2200Ω	Pin 6 †65Ω	Pin 10 †70K	Pin 11 †180K	Pin 12 .1Ω			

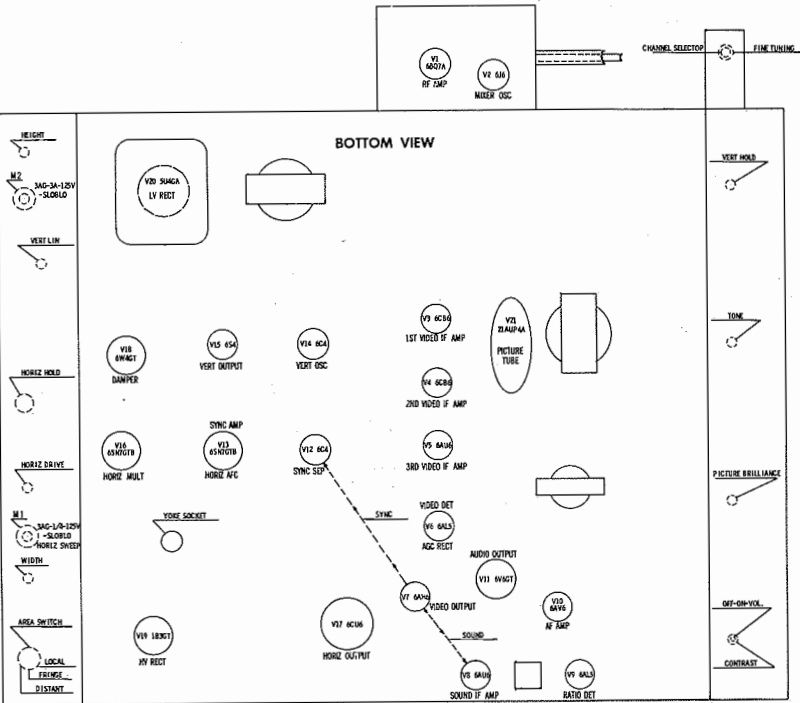
- † MEASURED FROM PIN 2 OF V20.

■ MEASURED FROM 135 VOLT LINE.

▲ MEASURED FROM PIN 3 OF V18.
- THIS READING WILL VARY.
CONTROL SET FOR NORMAL OPERATION.

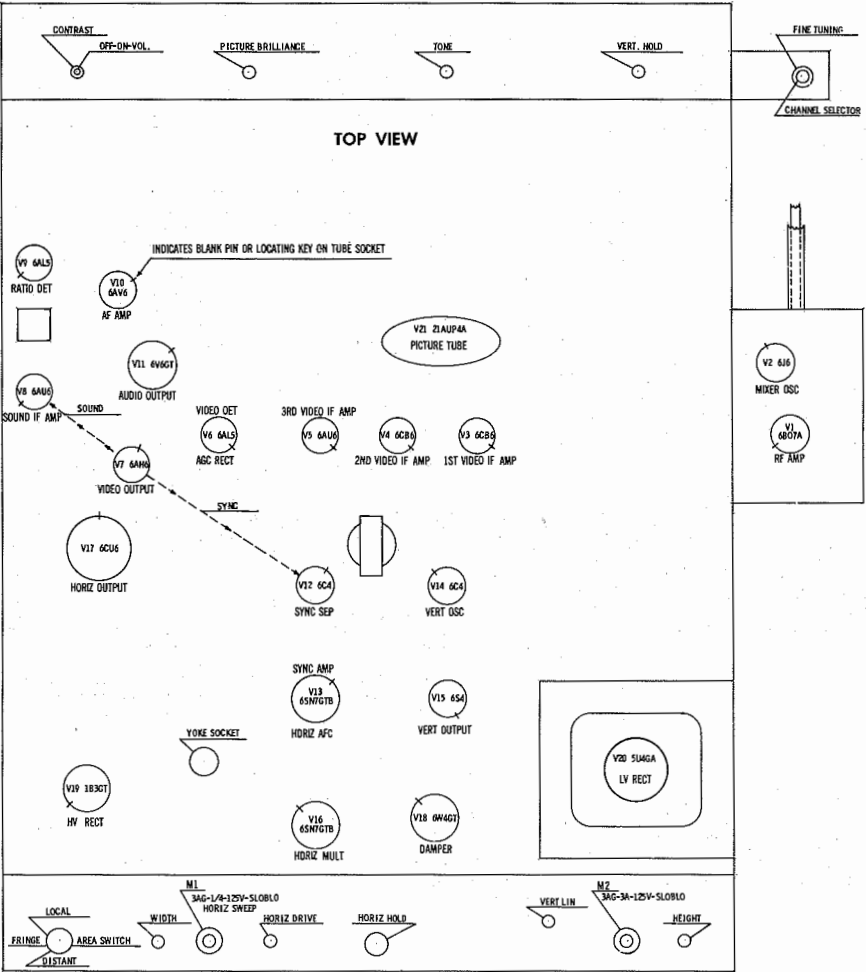
TP TIE POINT

NC NO CONNECTION



TUBE PLACEMENT CHART

TUBE PLACEMENT CHART



TUBE FAILURE CHECK CHART

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

- POWER SUPPLY FAILURE**
No raster, no sound - V20, Fuse (M1)
- LOSS OF PICTURE OR SOUND**
No pic, no sound, has raster - V2, V3, V4, V5, V6, V7, V11
No pic, no sound, has snow - V1, V2, V3
No pic, has raster, has raster - V7, V21
Has pic, no sound - V6, V9, V10, V11
- SYNC FAILURE**
No vert. sync - V13, V14
No horiz. sync - V13, V16
No vert. or horiz. sync - V12, V13
- SWEEP FAILURE**
No raster, has sound - V16, V17, V18, V19, V21, Fuse (M2)
No vertical deflection - V14, V15
Poor vert. linearity or foldover - V14, V15
Poor horiz. linearity or foldover - V16, V17, V18
Narrow picture - V16, V17, V18, V19, V20
Vert. off freq. - V13, V14
Horiz. off freq. - V13, V16

TRAV-LER MODELS 621-20,
-21, -22, -25, -26 (Ch. 412M6)

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT						
The high voltage should be securely taped and kept away from the chassis. Do not remove the horizontal oscillator tube (V16) to disable the high voltage.						
VIDEO IF ALIGNMENT						
Connect the negative lead of a 3 volt bias supply to the ungrounded side of C36. Positive to chassis. Remove the converter tube V2 from its socket and replace with a 6J6 which has pin 1 removed. This will disable the local oscillator and reduce the possibility of erroneous indications. Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.						
DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	REMARKS
1. Direct	High side to pin 1 (grid) of 6CB6 (V3). Low side to chassis.	Not used	20.6MC (Unmod)	12	USE VTVM. DC probe to point \diamond . Common to chassis.	A1, A2 Adjust for MINIMUM deflection.
2. "	High side to an ungrounded tube shield floating over dummy converter tube. Low side to chassis.	24MC (10MC Swp)	20.6MC 21.75MC 22.75MC 26.25MC	Any	Vert. Amp. thru 10K to point \diamond . Low side to chassis. A7	If necessary, reduce bias to 1.5 volts to obtain usable pattern on scope. Adjust A3 thru A7 to obtain response similar to Fig. 1. A3 affects the video side of the response curve and A4 affects the audio side. A5 affects the intermediate range of response curve. Adjust A6 and A7 for proper symmetry flatness and band width.
SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM						
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
3. Direct	High side to point \diamond . Low side to chassis.	4.5MC (Unmod)	Any	DC probe to point \diamond . Common to chassis.	A8, A9	Adjust for maximum deflection.
4. "	"	"	"	DC probe to point \diamond . Common to chassis.	A10	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
SOUND IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE						
Use frequency modulated signal with 60% modulation and 450KC sweep. Use 120v sawtooth voltage in scope for horizontal deflection.						
DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	REMARKS
3. Direct	High side to point \diamond . Low side to chassis.	4.5MC (450KC Swp)	4.5MC	Any	Vert. Amp. to point \diamond . Low side to chassis.	Disconnect stabilizing capacitor (C3). Adjust for curve of maximum amplitude and symmetry similar to Fig. 2.
4. "	"	"	"	"	Vert. Amp. to point \diamond . Low side to chassis.	Reconnect C3. Adjust so that 4.5MC occurs at center of crossover lines as in Fig. 3. SLIGHTLY retouch A9 for maximum amplitude and straightness of crossover lines.
4.5MC TRAP ALIGNMENT						
Set contrast control for maximum.						
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
5. Direct	High side to point \diamond . Low side to chassis.	4.5MC (Unmod)	Any	DC probe thru detector (Fig. 4) to pin 11 (cathode) of picture tube. Common to chassis.	All	Adjust for MINIMUM deflection.

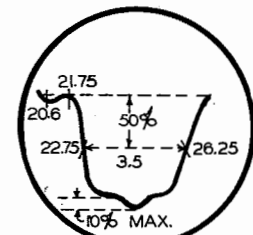


FIG. 1

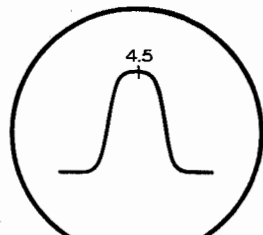


FIG. 2

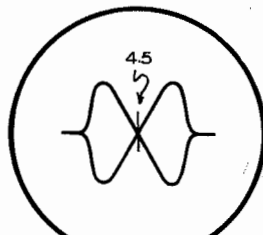


FIG. 3

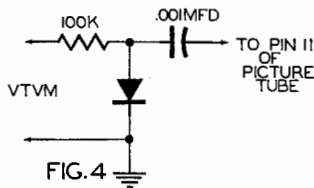


FIG. 4

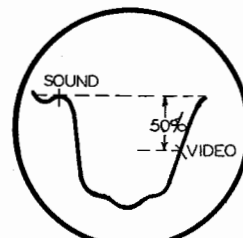


FIG. 5

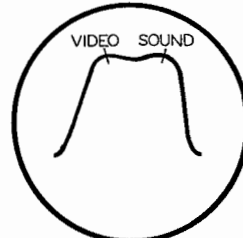


FIG. 6

ALIGNMENT INSTRUCTIONS (cont)

OSCILLATOR ALIGNMENT						
Remove the dummy converter tube and replace the original 6J6 in its socket. The channel oscillator screws are reached through a hole just below and to the right of the channel switch shaft. The correct adjustment screw is accessible through this hole as the channel switch is turned to each channel. Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms. Set the fine tuning control to the mid-position of its range.						
DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	REMARKS
6. Two 120Ω Carbon Resistors	Across antenna terminals with 120Ω in each lead.	213MC (10MC Swp) 207MC (10MC Swp) 201MC (10MC Swp) 195MC (10MC Swp) 189MC (10MC Swp) 183MC (10MC Swp) 177MC (10MC Swp) 85MC (10MC Swp) 79MC (10MC Swp) 69MC (10MC Swp) 63MC (10MC Swp) 57MC (10MC Swp)	211.25MC 215.75MC 205.25MC 209.75MC 199.25MC 193.75MC 187.25MC 181.75MC 175.25MC 179.75MC 83.25MC 77.25MC 67.25MC 61.75MC 55.25MC 59.75MC	13 12 11 10 9 8 7 6 5 4 3 2	Vert. Amp. thru 47K to point \diamond . Low side to chassis.	Adjust to place sound marker in trap notch as in Fig. 5. Video marker should fall at 50%.
RF AND MIXER ALIGNMENT						
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.						
DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	REMARKS
7. Two 120Ω Carbon Resistors	Across antenna terminals with 120Ω in each lead.	207MC (10MC Swp)	205.25MC 209.75MC	12	Vert. Amp. thru 10K to point \diamond . Low side to chassis.	Adjust for response curve similar to Fig. 6 with markers above 90%.
8. "	"	213MC (10MC Swp) 201MC (10MC Swp) 195MC (10MC Swp) 189MC (10MC Swp) 183MC (10MC Swp) 177MC (10MC Swp) 85MC (10MC Swp) 79MC (10MC Swp) 69MC (10MC Swp) 63MC (10MC Swp) 57MC (10MC Swp)	211.25MC 215.75MC 203.75MC 193.75MC 187.25MC 181.75MC 175.25MC 179.75MC 83.25MC 77.25MC 67.25MC 61.75MC 55.25MC 59.75MC	13 11 10 9 8 7 6 5 4 3 2	"	Check for response similar to Fig. 6. If markers fall below 70% on any channel, make compromise adjustments of A24, A25 and A26 with channel switch set to that channel. Check all other channels to see that they have not been seriously affected.

TRAVLER MODELS 621-20, -21,
-22, -25, -26 (Ch. 412M6)