

CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Turn the set on and allow it to warm up for 2 minutes. Tune in a TV station, preferably with a test pattern. Adjust the Horizontal Frequency Set control until the picture is in frequency. Remove clip lead from TP1 and chassis.

Connect a clip lead from TP1 to chassis. Adjust the Horizontal Hold to the center of its range.

DISASSEMBLY INSTRUCTIONS

- CHASSIS REMOVAL**

 1. Remove 10 wood screws holding rear cover.
 2. Remove rear cover.
 3. Remove 7 push-on type knobs at front.
 4. Disconnect antenna leads, picture tube socket, yoke plug, high voltage lead, and speaker leads.
 5. Remove plug from low voltage power chassis.
 6. Remove 2 main chassis bolts.
 7. Remove main chassis.
 8. Remove 2 bolts holding low voltage power chassis.
- PICTURE TUBE REMOVAL**

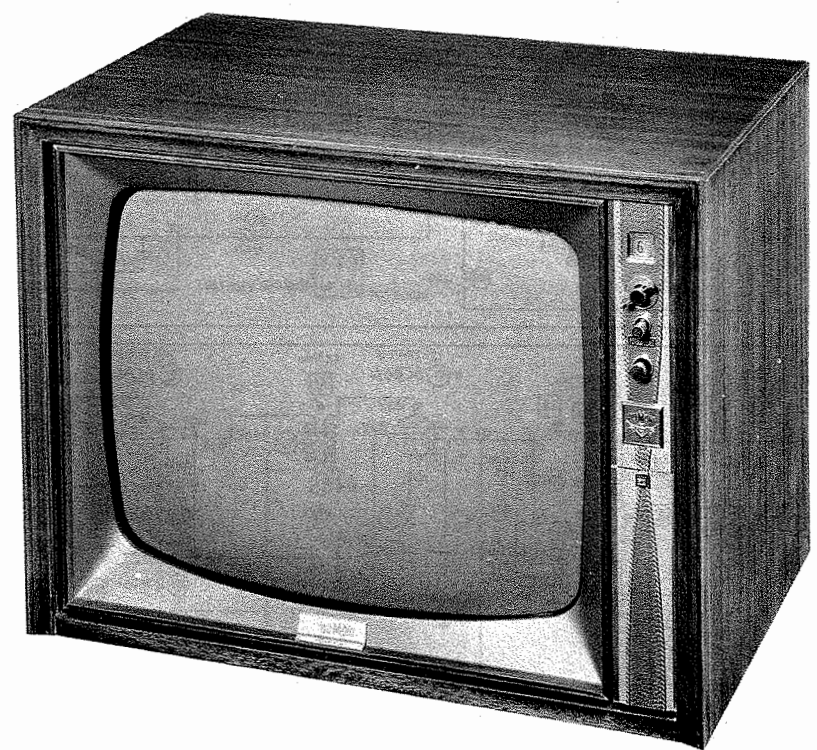
 1. Remove 2 screws at bottom front holding front mask.
 2. Remove front mask.
 3. Remove rear cover.
 4. Disconnect high voltage lead, yoke plug, and picture tube socket.
 5. Remove 4 screws (now visible after removing front mask).
 6. Remove picture tube out front.
- 9. Remove power chassis.**

FOLDER 1
SET 545

DUMONT CHASSIS 120482B, 523B, 543B, 563B, 568B, 602A, 603A, 604A, 605A




PHOTOFACT® Folder with CIRCUITRACE®

DUMONT CHASSIS 120482B, 523B, 543B, 563B, 568B, 602A, 603A, 604A, 605A



MODEL NO. RA700A-B50

TRADE NAME DUMONT
MANUFACTURER Dumont Television and Radio Corp., 14th and Coles Streets, Jersey City, N. J.
TUBES TV (VHF) Ch. 120602A, 604A - Eighteen. FM-AM Tuner - Eight Remote Control Receiver - Seven
TV (VHF) Ch. 120603A, 605A - Seventeen. Stereo Amp. - Nine
TRANSISTORS Remote Control Transmitter - Two
POWER SUPPLY 110-120 Volts AC, 60 Cycle (Remote Control Transmitter: 9 Volt Battery)
RATING TV Model No. RA700A-B50: 200 Watts, 1.8 Amp. @ 117 Volts AC
TUNING RANGE TV: Channels 2 thru 13 VHF, Video IF 45.75MC, Sound IF 41.25MC (Inter-carrier)
FM-AM Tuner: BC - 540 to 1620 KC (455KC IF)
FM - 88 to 108MC (10.7MC IF)

TV CHASSIS CODES  ,  ,  .							
Model No.	TV Ch.	Remote Control	Model No.	TV Ch.	FM-AM Tuner Ch.	Stereo Amp. Ch.	Remote Control
RA700, A, B, C-B50 ...	120602A		RA700, A, B, C-B64 ...	120602A			
RA700, A, B, C-B51 ...	120604A ...	471281	RA700, A, B, C-B65 ...	120604A			471281
RA700, A, B, C-B52 ...	120602A		RA700, A, B, C-B66 ...	120602A			
RA700, A, B, C-B53 ...	120604A ...	471281	RA700, A, B, C-B67 ...	120604A			471281
RA700, A, B, C-B54 ...	120602A		RA700, A, B, C-B68 ...	120602A			
RA700, A, B, C-B55 ...	120604A ...	471281	RA700, A, B, C-B69 ...	120604A			471281
RA700, A, B, C-B56 ...	120602A		RA704, A, B, C-B70 ...	120603A ...	120523B ...	120543B	
RA700, A, B, C-B57 ...	120604A ...	471281	RA704, A, B, C-B71 ...	120605A ...	120523B ...	120563B ...	471284
RA700, A, B, C-B58 ...	120602A		RA704, A, B, C-B72 ...	120603A ...	120523B ...	120543B	
RA700, A, B, C-B59 ...	120604A ...	471281	RA704, A, B, C-B73 ...	120605A ...	120523B ...	120563B ...	471284
RA700, A, B, C-B60 ...	120602A		RA704, A, B, C-B74 ...	120603A ...	120523B ...	120543B	
RA700, A, B, C-B61 ...	120604A ...	471281	RA704, A, B, C-B75 ...	120605A ...	120523B ...	120563B ...	471284
RA700, A, B, C-B62 ...	120602A		RA704, A, B, C-B76 ...	120603A ...	120482B ...	120568B	
RA700, A, B, C-B63 ...	120604A ...	471281	RA704, A, B, C-B77 ...	120605A ...	120482B ...	120568B ...	471284

4 SPEED AUTOMATIC RECORD CHANGER (DUMONT Pt. #819156) USED IN "RA704" SERIES.
FOR SERVICE INFORMATION - SEE SIMILAR GARRARD RC88 SERIES - PHOTOFACT SET 338 FOLDER 5

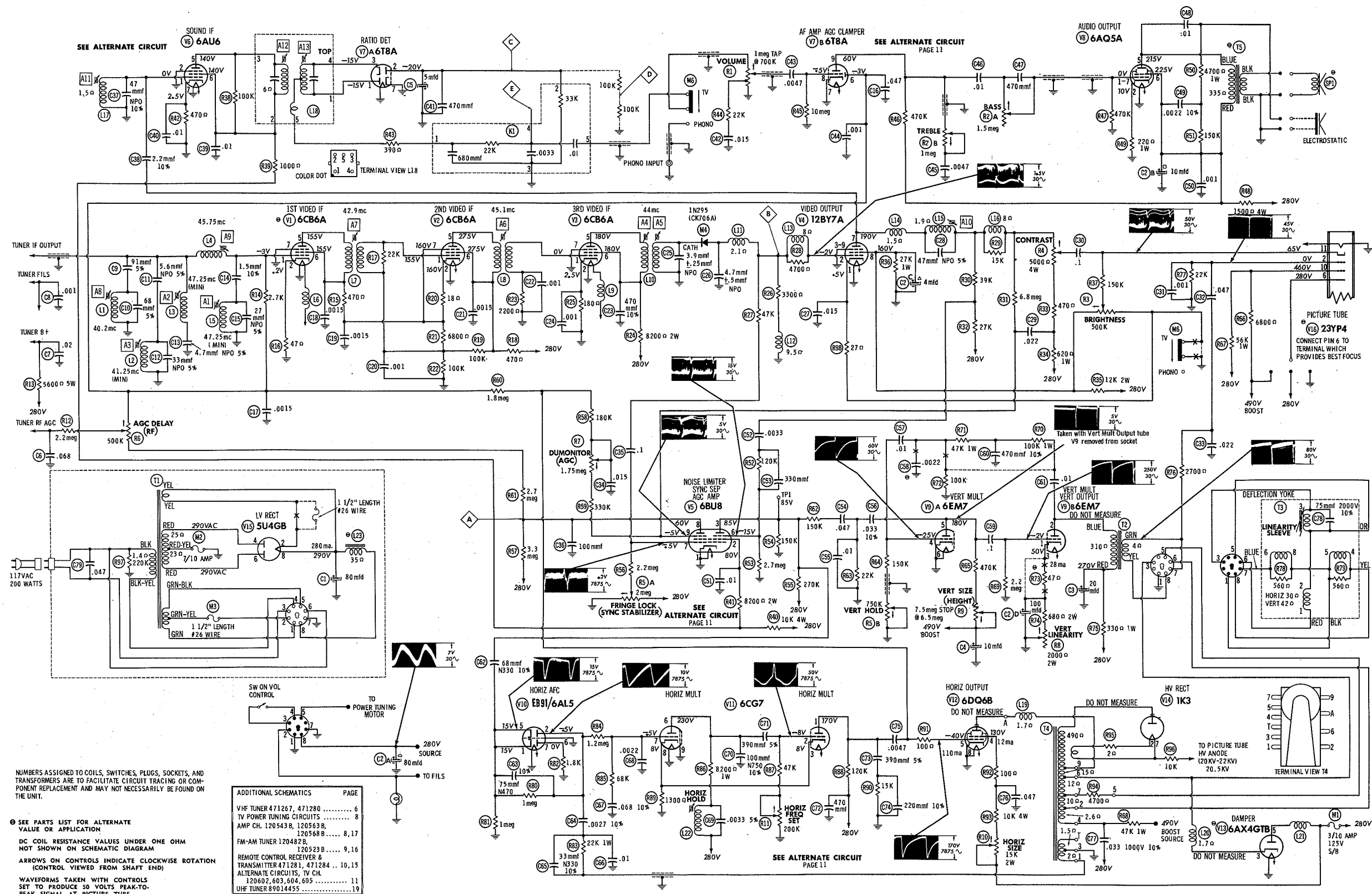
SEE PAGE 3 FOR SERVICING IN THE FIELD

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

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DUMONT CHASSIS 120482B, 523B, 543B, 563B, 568B, 602A, 603A, 604A, 605A

SET 545 FOLDER 1



A PHOTOFACIT STANDARD NOTATION SCHEMATIC
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DUMONT CHASSIS 120482B, 523B, 543B,
563B, 568B, 602A, 603A, 604A, 605A

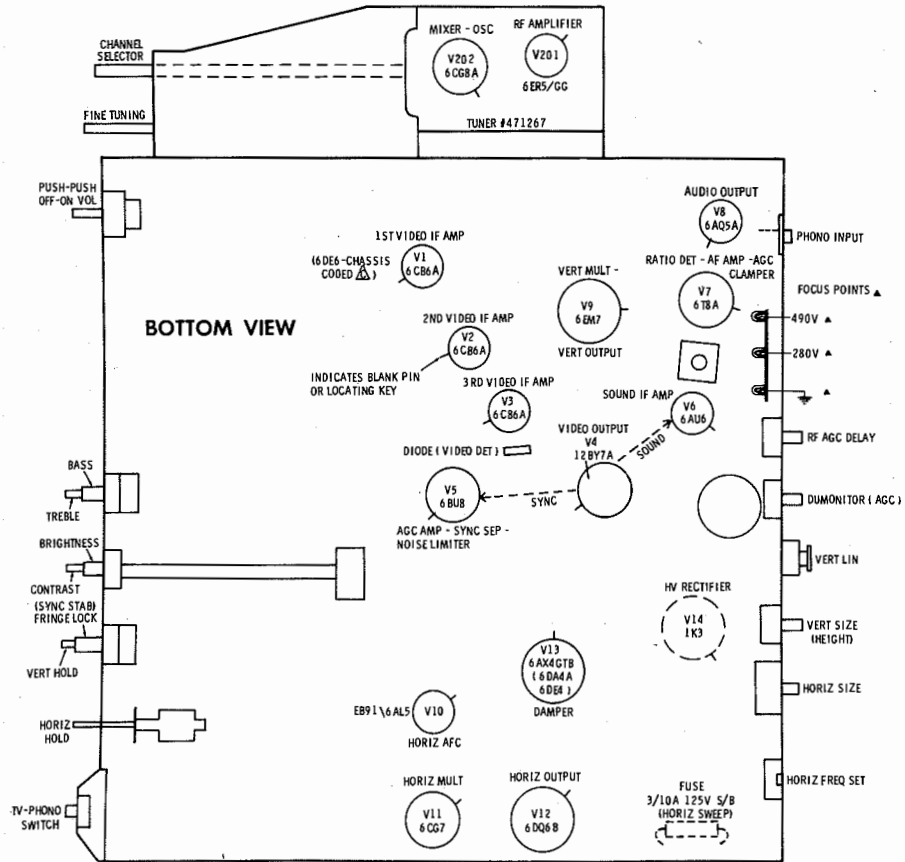
DUMONT CHASSIS 120482B, 523B, 543B,
563B, 568B, 602A, 603A, 604A, 605A

FOLDER 1

TV RESISTANCE MEASUREMENTS

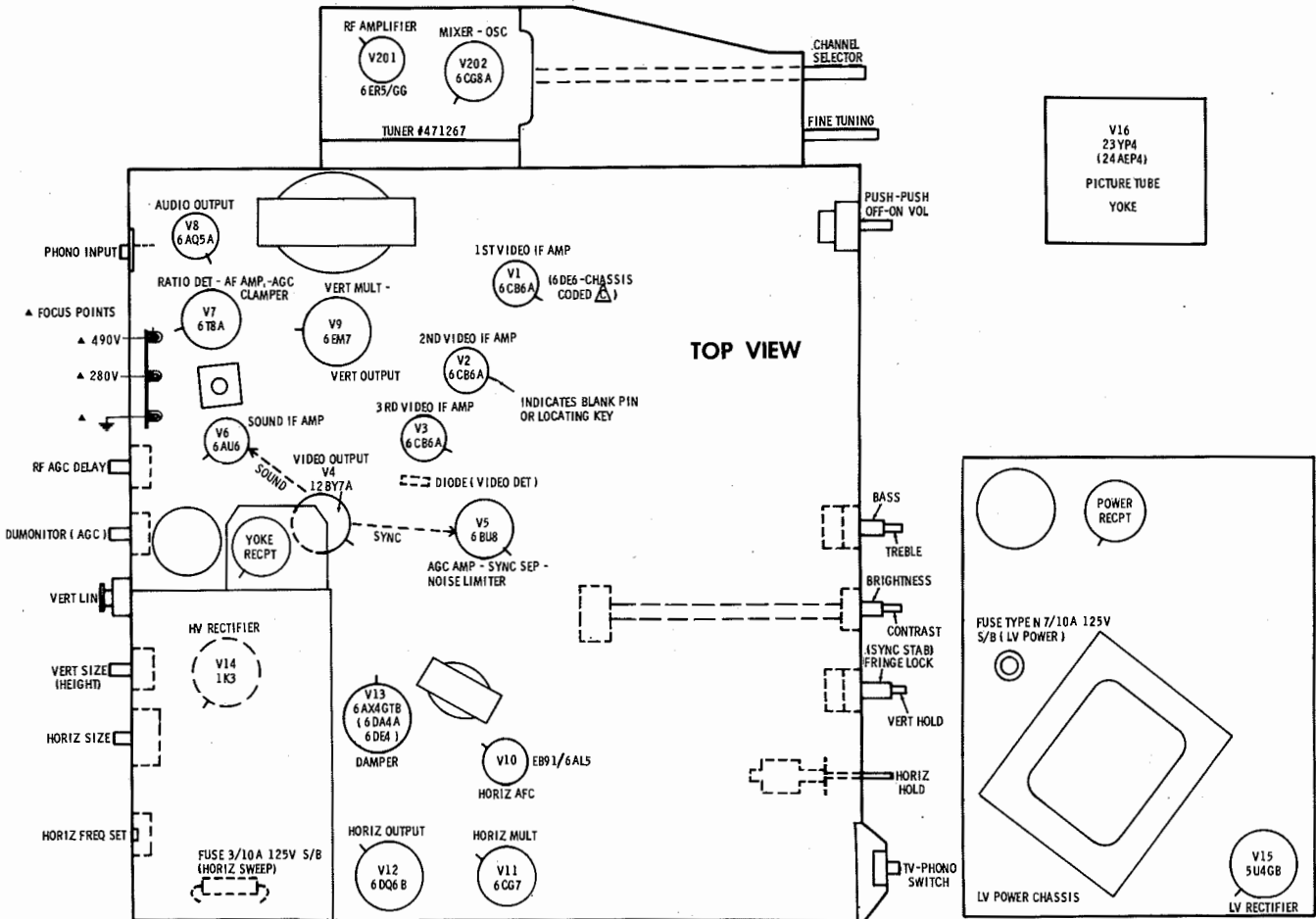
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6CB6A	3.6meg	47Ω	FIL	FIL	490Ω	490Ω	0Ω		
V2	6CB6A	60K	66K	FIL	FIL	†505Ω	†505Ω	66K		
V3	6CB6A	2200Ω	180Ω	FIL	FIL	†8200Ω	†8200Ω	0Ω		
V4	12BY7A	27Ω	3300Ω	NC	FIL	FIL	NC	†5600Ω	†12K	0Ω
V5	6BU8	0Ω	†18K	†120K	FIL	FIL	2.7meg	2.4meg	†2.5meg	4meg
V6	6AU6	1.5Ω	0Ω	FIL	FIL	†11K	†11K	470Ω		
V7	6T8A	INF	33K	INF	FIL	FIL	3.6meg	0Ω	10meg	†470K
V8	6AQ5A	470K	220Ω	FIL	FIL	†1900Ω	†1500Ω	NC		
V9	6EM7	2.2meg	†675Ω	1800Ω	480K	†1.8meg	0Ω	FIL	FIL	
V10	EB91 6AL5	1meg	2meg	FIL	FIL	1meg	0Ω	1800Ω		
V11	6CG7	†120K	100K	1300Ω	FIL	FIL	†8200Ω	3.2meg	1300Ω	0Ω
V12	6DQ6B	TP	FIL	TP	†21K	3.8meg	TP	FIL	0Ω	TOP CAP †18Ω
V13	6AX4GTB	NC	NC	150K	NC	†35Ω	NC	FIL	FIL	
V14	1K3	PINS 1 THRU 8 HAVE INFINITE RESISTANCE								TOP CAP †510Ω
V15	5U4GB	NC	†	NC	25Ω	NC	23Ω	NC	†	
V16	23YP4	FIL	22K	Pin 6 †35Ω	Pin 10 †54K	Pin 11 280K	Pin 12 FIL			
V201	6ER5/GG	0Ω	5.2meg	FIL	FIL	†6600Ω	0Ω	0Ω		
V202	6CG8A	4700Ω	†15K	0Ω	FIL	FIL	†6600Ω	†27K	0Ω	220K

† THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
• THIS READING WILL VARY. CONTROL SET FOR NORMAL OPERATION.
† MEASURED FROM PIN 8 OF V15.
† MEASURED FROM PIN 3 OF V13.
■ MEASURED FROM PIN 2 OF V2.
NC NO CONNECTION TP TIE POINT



TV TUBE PLACEMENT CHART

TV 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 Fuse (LV Power), V15, Fuse Wire (Fil.)

SWEEP FAILURE
No raster, has sound V11, V12, V13, V14, Fuse (Sweep), V16
No vertical deflection V9
Poor vert. linearity or foldover V9
Poor horiz. linearity or foldover V11, V12, V13
Narrow picture V11, V12, V13, V15
Vert. off freq. V9
Horiz. off freq. V10, V11

LOSS OF PICTURE OR SOUND
No pic, no sound, has raster V1, V2, V3, Diode (Video Det.), V4
No pic, no sound, has snow V201, V202, V1
No pic, has sound, has raster V4, V16
Has pic, no sound V6, V7, V8
Overloaded picture V5

SYNC FAILURE
No vert. sync V5
No horiz. sync V5, V10
No vert. or horiz. sync V5

SERVICING IN THE FIELD

SAFETY GLASS

The safety glass is an integral part of the picture tube.

FUSE

TV: A 7/10 Amp. (LV Supply) and a 3/10 Amp. (Horiz. Sweep) are used for receiver protection. (See "Tube Placement Chart" for location.)
A fuse wire is used for filament protection. (See M3 in photo "TV LV Power Chassis - Bottom View".)

Stereo Amp.: A 1/2 Amp. fuse is used for LV supply protection.

TUNER OSCILLATOR ADJUSTMENT

To touch up the VHF Oscillator, it is necessary to remove the chassis. (See "Disassembly Instructions".)

AGC

The AGC may be adjusted by a Dumonitor control and an RF AGC delay control. (See "Tube Placement Chart" for location.)

FOCUS

The focus may be varied by connecting the lead from Pin 6

of the picture tube to various voltage points. (For location, see "Tube Placement Chart".)

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 Frequency Slug is used for the Horizontal Hold.

WIDTH

The width may be varied by a Horizontal Size control. (See "Tube Placement Chart" for location.)

BUZZ ADJUSTMENT

To eliminate intercarrier buzz, adjust the Ratio Detector secondary (A13) located at top of chassis.

CENTERING

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

DUMONT CHASSIS 120482B, 523B, 543B, 563B, 568B, 602A, 603A, 604A, 605A

FOLDER 1

ALIGNMENT INSTRUCTIONS
TV

PRE-ALIGNMENT INSTRUCTIONS

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

VIDEO IF ALIGNMENT

Connect the negative lead of a variable bias supply to point \diamond . Positive to chassis. For steps 1 thru 5, set bias for 4.5 volts. For step 6, set bias for 3 volts.
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 generator output to provide a usable indication.
Use only enough sweep generator output to provide a usable pattern on scope.

	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1.	High side to ungrounded tube shield floating over Mixer-Osc. Low side to chassis.	Not Used	47.25MC (Unmod.)	Any non-interfering channel	USE VTVM DC probe to point \diamond . Common to chassis. (Across Video Det. load.)	A1, A2	Adjust for MINIMUM deflection.
2.	"	"	41.25MC	"	"	A3	"
3.	"	"	44.0MC	"	"	A4, A5	Adjust for maximum deflection.
4.	"	"	45.1MC	"	"	A6	"
5.	"	"	42.9MC	"	"	A7	"
6.	"	43.5MC (10MC Swp.)	40.2MC 41.25MC 42.25MC 44.0MC 45.75MC 47.25MC	"	Vert. Amp. thru detector probe to pin 5 (plate) of 1st Video IF Amp. Low side to chassis.	A8, A9 & Mixer Plate Coil	Adjust A8 for 40.2MC kickback peak as in Fig. 1. Adjust A9 and Mixer Plate Coil for response similar to Fig. 1 with markers as shown.

4.5MC TRAP ALIGNMENT

	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
7.	High side thru .001mfd to point \diamond . Low side to chassis.	Not Used	4.5MC (400% AM)	Any non-interfering channel	Vert. Amp. thru detector probe to pin 11 of picture tube. Low side to chassis.	A10	Adjust for MINIMUM 400v indication.

SOUND IF ALIGNMENT

Connect two matched 100K ($\pm 1\%$) resistors in series from point \diamond to chassis. The junction of these two resistors is alignment point \diamond as shown on the schematic.
A TV station signal may be substituted for the signal generator if a generator of crystal accuracy is not available.

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
8.	High side thru .001mfd to point \diamond . Low side to chassis.	4.5MC (Unmod.)	Any non-interfering channel	DC probe to point \diamond . Common to chassis.	A11, A12	Adjust for maximum deflection.
9.	"	"	"	DC probe to point \diamond . Common to point \diamond .	A13	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.

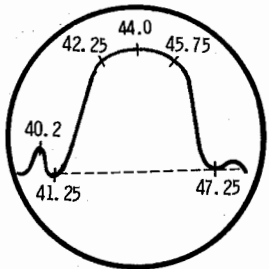
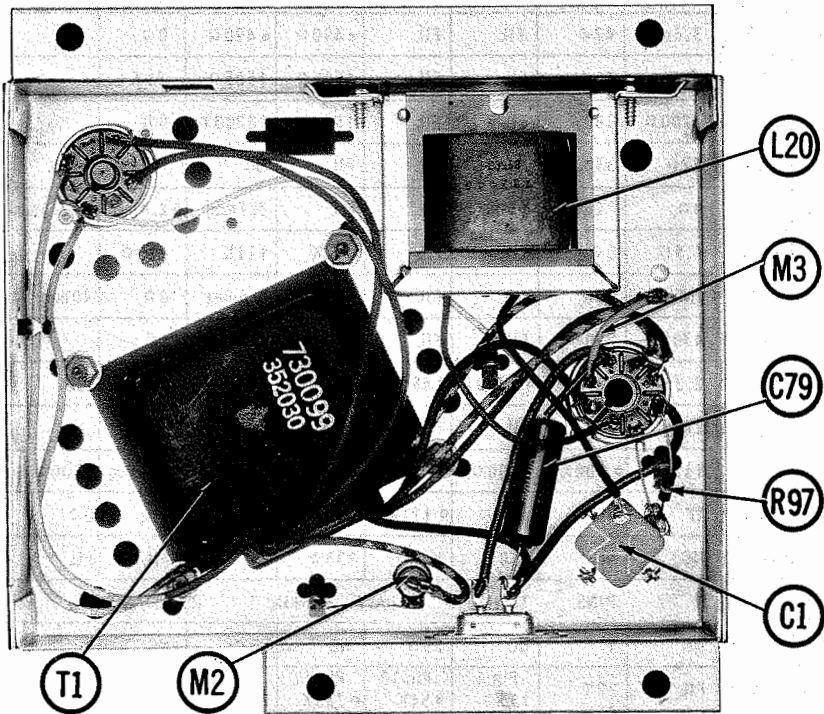
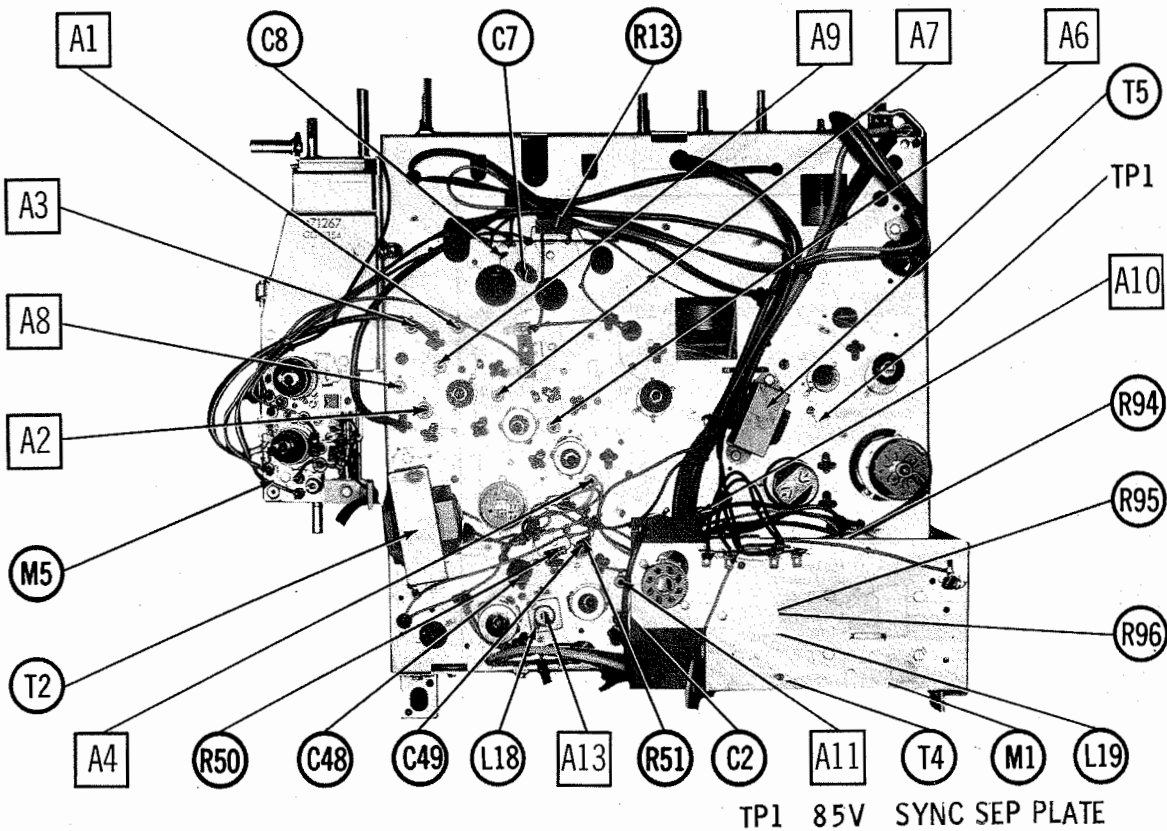


FIG. 1



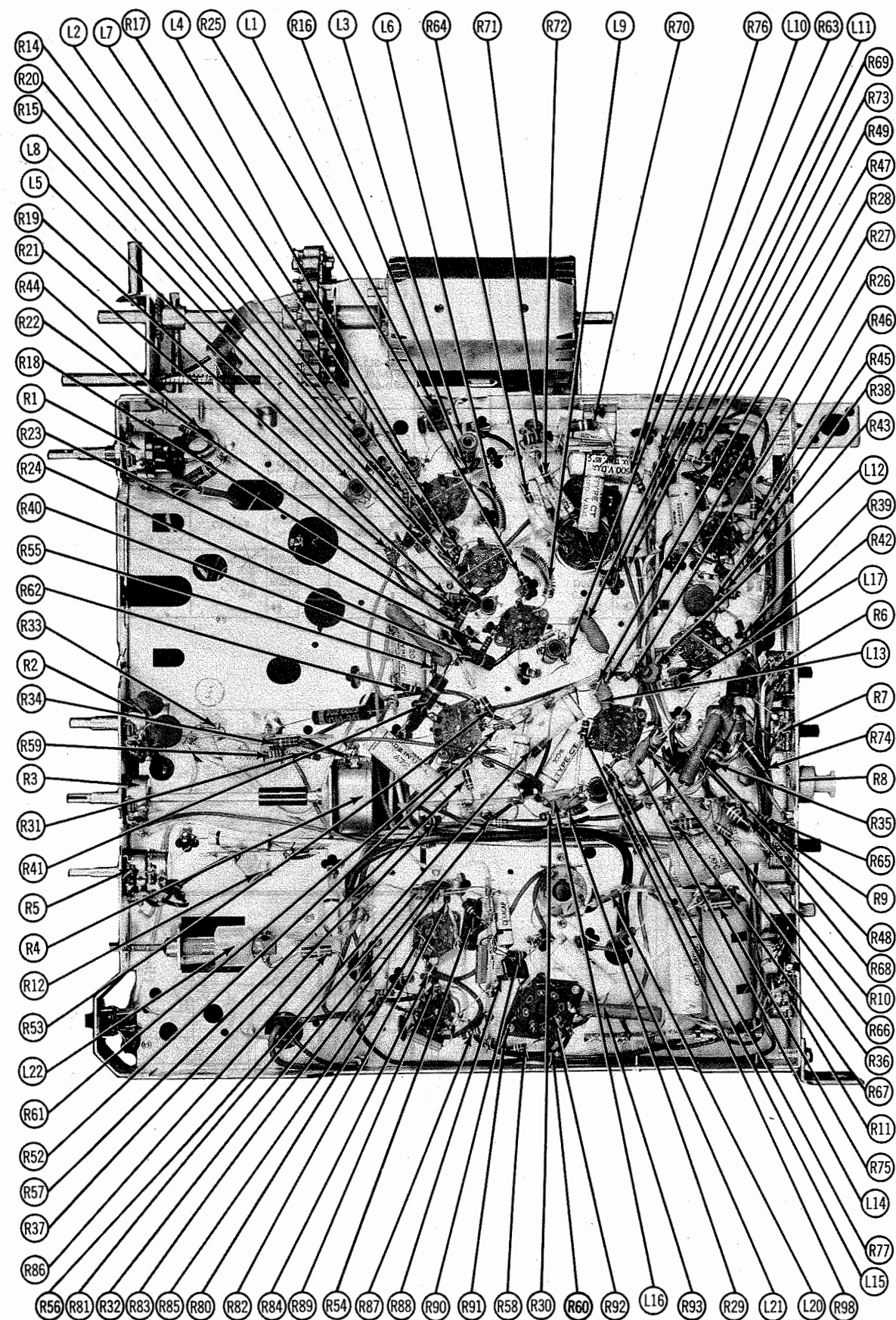
TV POWER CHASSIS - BOTTOM VIEW



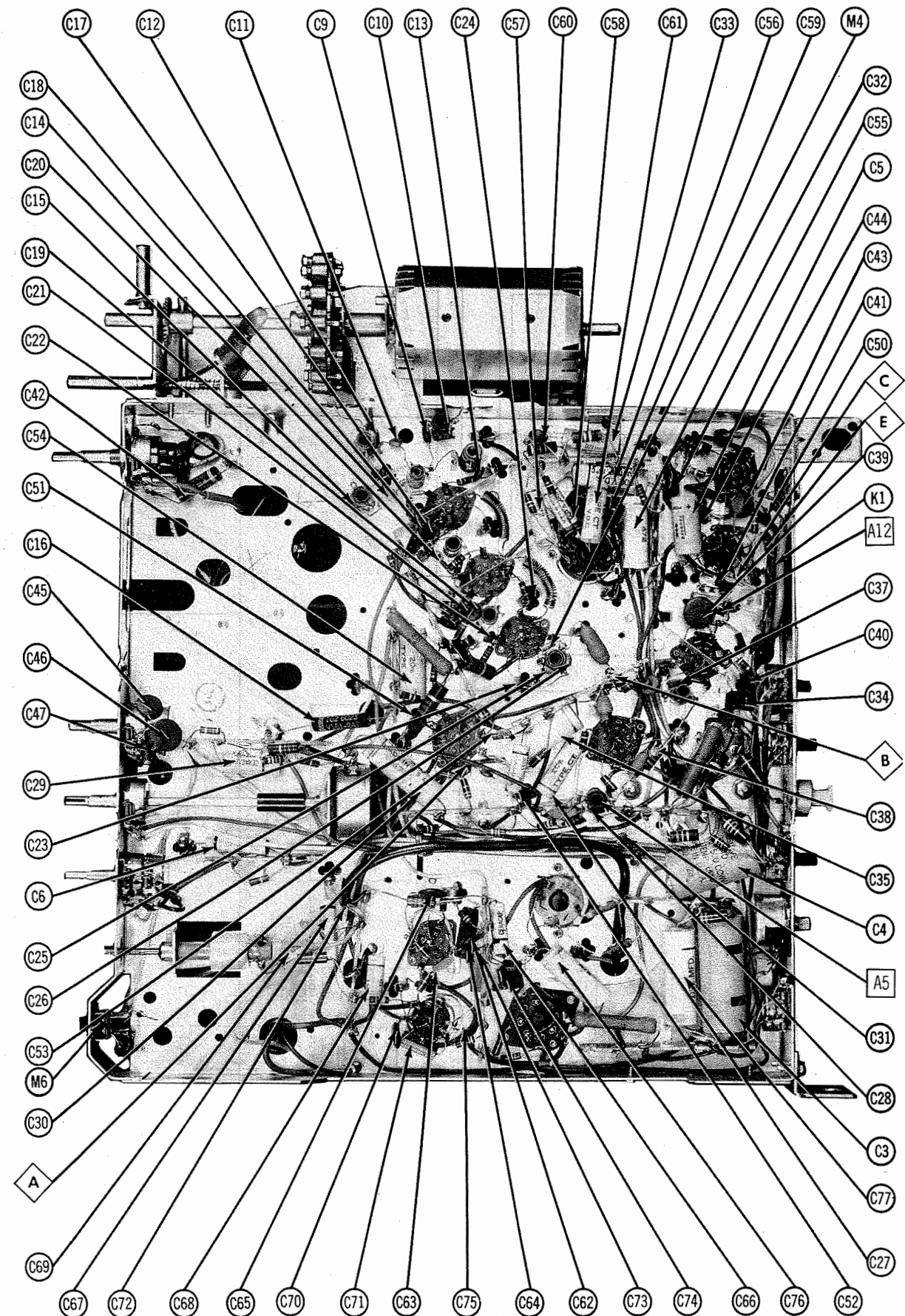
TV CHASSIS - TOP VIEW

DUMONT CHASSIS 120482B, 523B, 543B, 563B, 568B, 602A, 603A, 604A, 605A

FOLDER 1



TV CHASSIS BOTTOM VIEW - RESISTOR, INDUCTOR IDENT.



TV CHASSIS BOTTOM VIEW - ALIGN., CAPACITOR, MISC. IDENT.

DUMONT CHASSIS 120482B, 523B, 543B,
563B, 568B, 602A, 603A, 604A, 605A

FOLDER 1

A PHOTOFAC STANDARD NOTATION SCHEMATIC

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UHF TUNER 89014455

VHF TUNER 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: A201 thru A212 GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989
WALSCO #2515, 2531, 2532
A213, A214, A215 GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089
WALSCO #2512, 2525, 2528

OSCILLATOR 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.
Set the Fine Tuning to the center of its range.
Use only enough sweep generator output to provide a usable pattern on scope.
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 terminals with 120Ω in each lead.	213MC	211.25MC 215.75MC	13	Vert. Amp. thru 47K across Video Det. load	A201	Adjust to place sound marker in trap notch as in Fig. 201. Video marker should fall at 50%.
	207MC	205.25MC 209.75MC	12		A202	
	201MC	199.25MC 203.75MC	11		A203	
	195MC	193.25MC 197.75MC	10		A204	
	189MC	187.25MC 191.75MC	9		A205	
	183MC	181.25MC 185.75MC	8		A206	
	177MC	175.25MC 179.75MC	7		A207	
	85MC	83.25MC 87.75MC	6		A208	
	79MC	77.25MC 81.75MC	5		A209	
	69MC	67.25MC 71.75MC	4		A210	
	63MC	61.25MC 65.75MC	3		A211	
	57MC	55.25MC 59.75MC	2		A212	

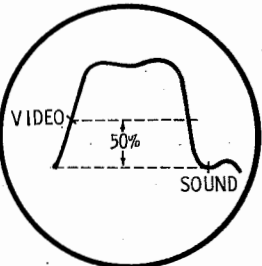


FIG. 201

RF AND MIXER ALIGNMENT

Connect the negative lead of a variable bias supply to point ④. Positive to chassis. Set bias for 2.5 volts.
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.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
2. Across antenna terminals with 120Ω in each lead.	195MC	193.25MC 197.75MC	10	Vert. Amp. thru 10K to point ④. Common to chassis.	A213, A214, A215	Adjust A213 and A214 for maximum amplitude and symmetry with markers as shown in Fig. 202. Increase bias for MINIMUM amplitude of response curve. Without changing the bias adjust A215 to obtain MINIMUM response on the scope.
3. "	213MC	211.25MC 215.75MC	13	"	A216	Adjust for maximum amplitude of response similar to Fig. 202. Adjust by expanding or compressing coil turns.
	207MC	205.25MC 209.75MC	12		A217	
	201MC	199.25MC 203.75MC	11		A218	
	195MC	193.25MC 197.75MC	10		A219	
	189MC	187.25MC 191.75MC	9		A220	
	183MC	181.25MC 185.75MC	8		A221	
	177MC	175.25MC 179.75MC	7		A222	
	85MC	83.25MC 87.75MC	6		A223	
	79MC	77.25MC 81.75MC	5		A224	
	69MC	67.25MC 71.75MC	4		A225	
	63MC	61.25MC 65.75MC	3		A226	
	57MC	55.25MC 59.75MC	2		A227	

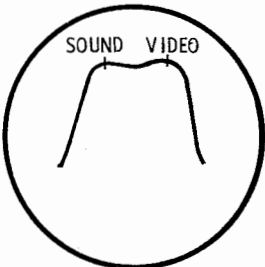


FIG. 202

FM-AM ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Use only enough generator output to provide a usable indication.

AM ALIGNMENT

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1. High side thru .1mfd to pin 7 (grid) of AM Converter. Low side to chassis.	455KC (400%) 30% AM	AM Tuning gang fully open	AC probe across Audio Output Jack.	A14, A15, A18, A17	Adjust for maximum deflection.
2. Loop	1800KC	1800KC	"	A18, A19	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3. "	600KC	600KC	"	A20	Adjust for maximum deflection. Repeat steps 2 and 3.

FM IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
4. High side thru .01mfd to pin 7 (grid) of FM Mixer. Low side to chassis.	10.7MC (Unmod.)	FM Point of non-interference	DC probe thru lmeq to point ⑤. Common to chassis.	A21, A22, A23, A24, A25, A26, A27	Adjust for maximum deflection.
5. "	"	"	DC probe to point ⑥. Common to chassis.	A28	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.

FM IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE

AFC off.
Use frequency modulated signal with 60% modulation and 450KC sweep. Use 120% sawtooth voltage in scope for horizontal deflection.

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT SCOPE	ADJUST	REMARKS
4. High side thru .01mfd to pin 7 (grid) of FM Mixer. Low side to chassis.	10.7MC (450KC Swp.)	FM Point of non-interference	Vert. Amp. thru 47K to point ⑤. Low side to chassis.	A21, A22, A23, A24, A25, A26, A27	Adjust for maximum gain and symmetry of response similar to Fig. 2 with markers as shown.
5. "	"	"	Vert. Amp. to point ⑥. Low side to chassis.	A28	Adjust to place marker at center of crossover lines similar to Fig. 3. SLIGHTLY retouch A21 for maximum amplitude and straightness of crossover lines.

FM RF ALIGNMENT

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
6. High side thru 270Ω to FM antenna terminal. Low side to chassis.	108MC (Unmod.)	FM 108MC	DC probe thru lmeq to point ⑤. Common to chassis.	A29, A30, A31	Adjust for maximum deflection.
7. "	88MC	88MC	"	A32, A33, A34	Adjust for maximum deflection. Coils not containing adjustable cores are adjusted by expanding or compressing coil turns.

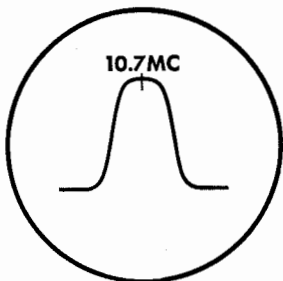


FIG. 2

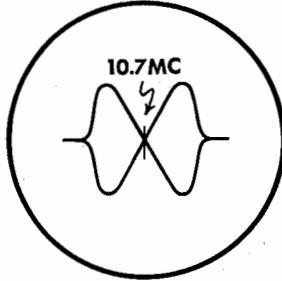
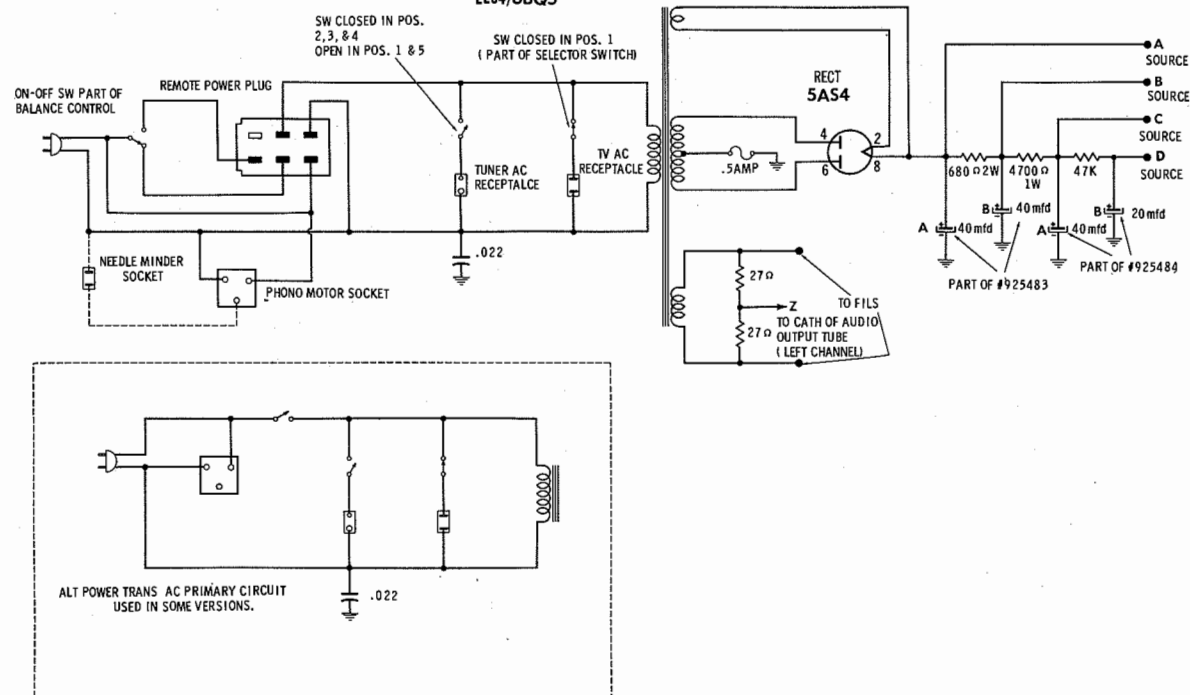
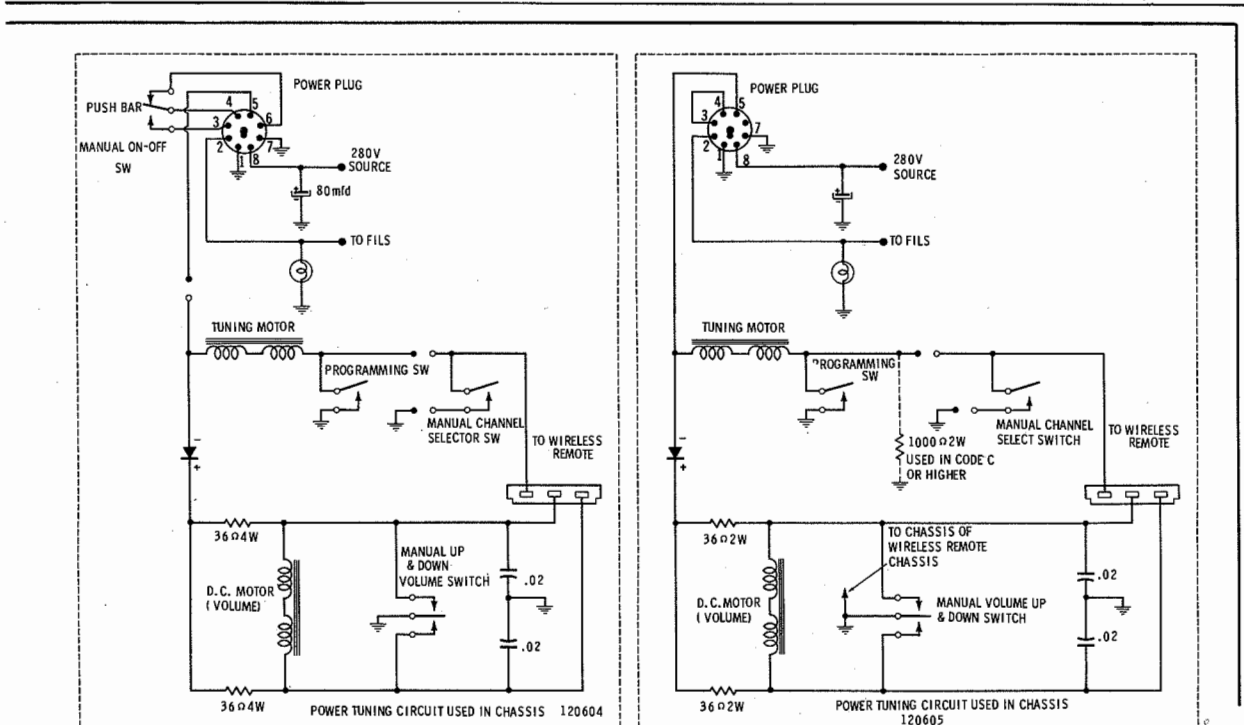
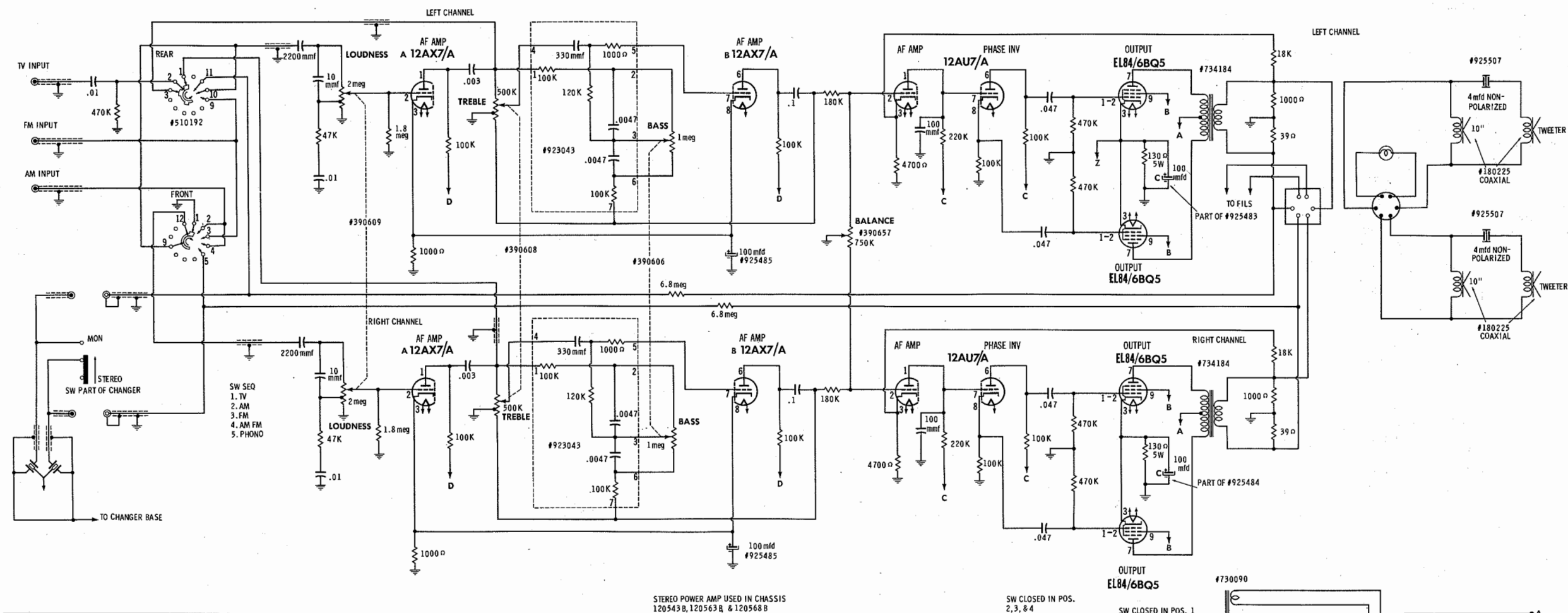


FIG. 3

DUMONT CHASSIS 120482B, 523B, 543B, 563B, 568B, 602A, 603A, 604A, 605A

FOLDER 1



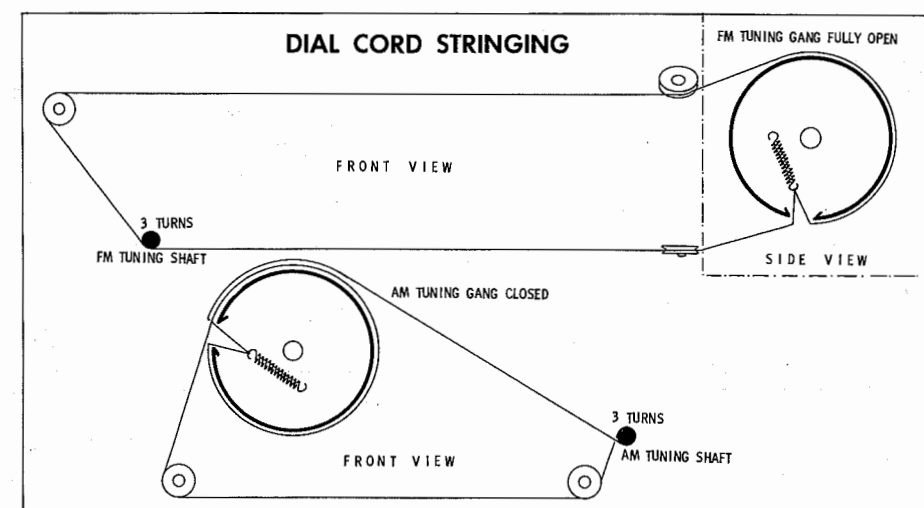
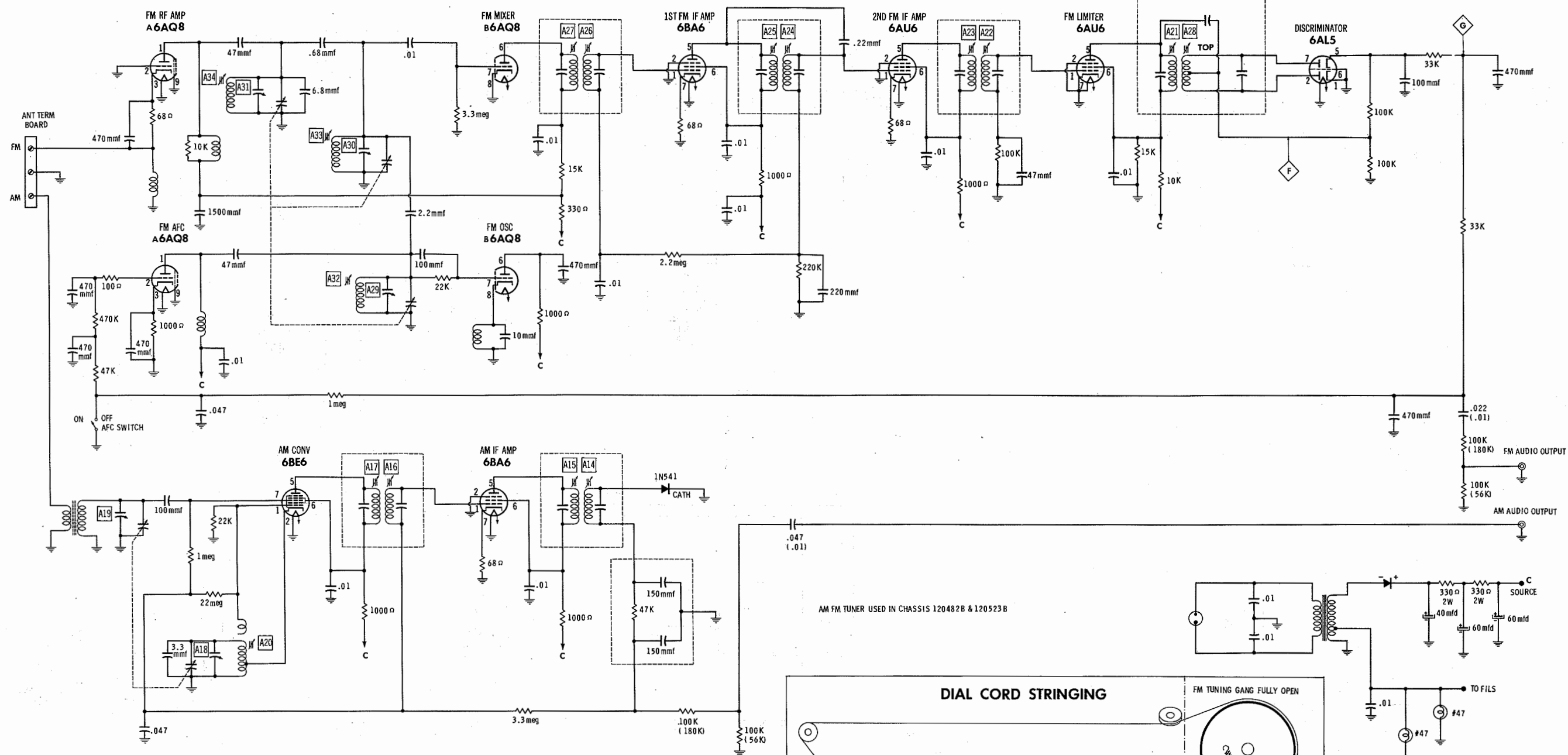
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TV POWER TUNING CIRCUITS

AMP. CHASSIS 120543B, 563B, 568B

DUMONT CHASSIS 120482B, 523B, 543B, 563B, 568B, 602A, 603A, 604A, 605A

FOLDER 1

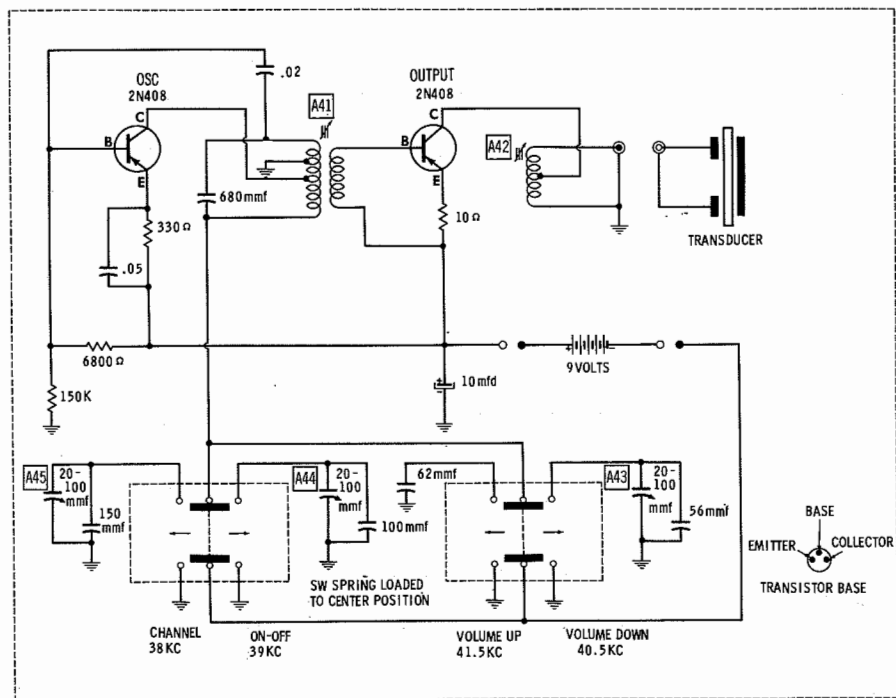
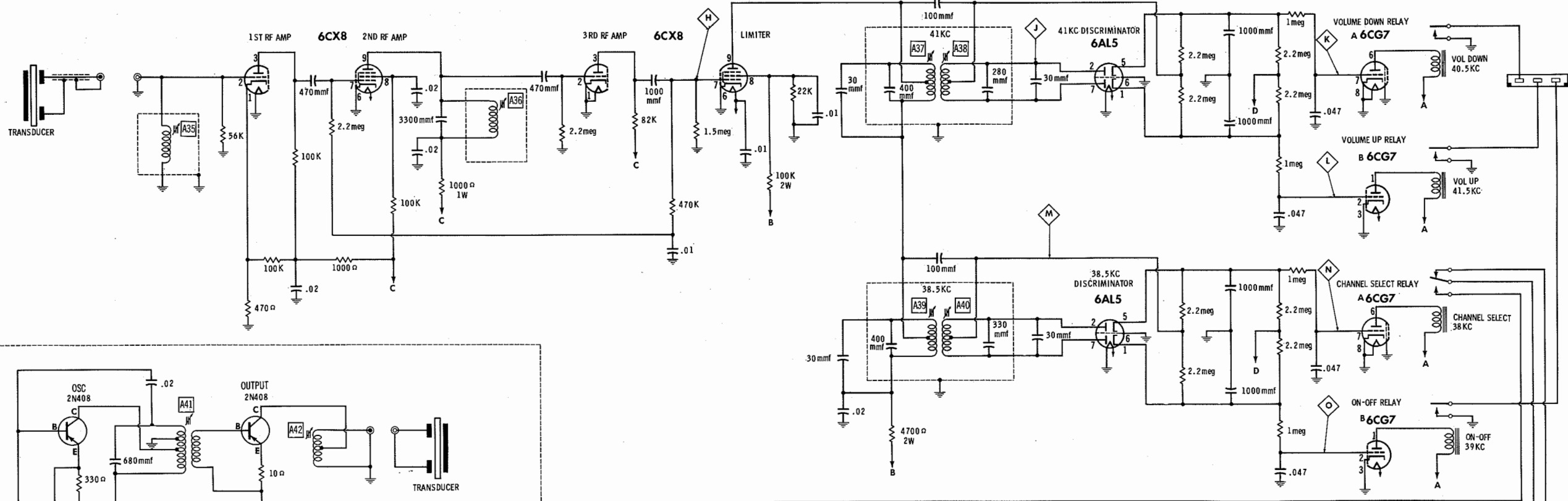


A PHOTOFAC STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1961

FM-AM TUNER 120482B, 120523B

DUMONT CHASSIS 120482B, 523B, 543B,
563B, 568B, 602A, 603A, 604A, 605A

FOLDER 1

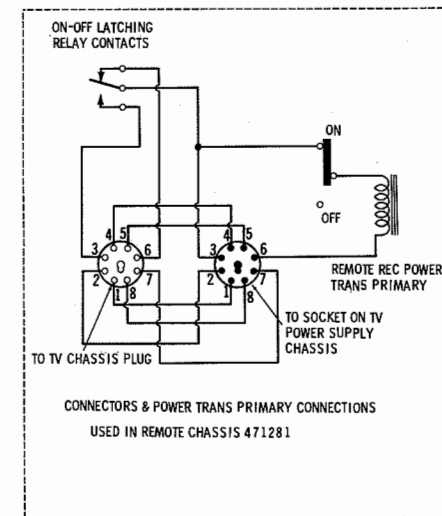
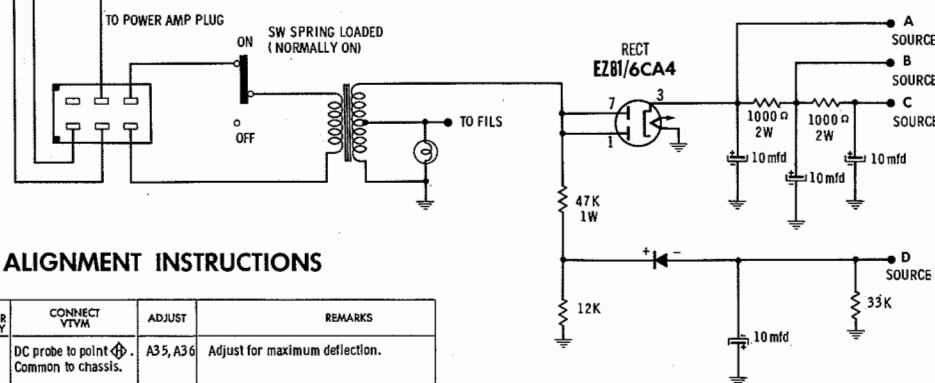


ALIGNMENT INSTRUCTIONS

REMOTE CONTROL TRANSMITTER				
SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CONNECT VTVM	ADJUST	REMARKS
1. Across horizontal input terminals of scope.	41.5 KC (Unmod.)	Vert. Amp. thru 1 meg to transmitter socket. Low side to common.	A41	Depress Volume Up button. Set signal generator output to same level as transmitter. Adjust A41 for zero beat on scope.
2. "	40.5 KC	"	A42, A43	Depress Volume Down button and adjust A42 and A43 for zero beat.
3. "	39.0 KC	"	A44	Depress On-Off button and adjust A44 for zero beat.
4. "	38.0 KC	"	A45	Depress Channel Selector button and adjust A45 for zero beat.

ALIGNMENT INSTRUCTIONS

REMOTE CONTROL RECEIVER				
SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CONNECT VTVM	ADJUST	REMARKS
1. High side thru 100K to transducer input socket. Low side to chassis.	39.75 KC (Unmod.)	DC probe to point Φ . Common to chassis.	A35, A36	Adjust for maximum deflection.
2. "	41.0 KC	DC probe thru 1 meg to point Φ . Common to chassis.	A37	"
3. "	"	DC probe to point Φ . Common to point Φ .	A38	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
4. "	38.5 KC	DC probe to point Φ . Common to chassis.	A39	Adjust for maximum deflection.
5. "	"	DC probe to point Φ . Common to point Φ .	A40	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.



SIGNAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA				NOTES
		DUMONT PART No.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M4	1N295 or CK708A	28001891		1N295 1N295		Video Detector (Pigtall)

MISCELLANEOUS

ITEM No.	PART NAME	DUMONT PART No.	NOTES
M5	Tuner	471287	VHF, Chassis 120802A, 803A STANDARD COIL REPLACEMENT #GG-4220A *
	Tuner	471280	VHF, Chassis 120804A, 805A
	Tuner	89014455	UHF
M6	Switch	510085	TV-Phono (DPDT Slide Type)

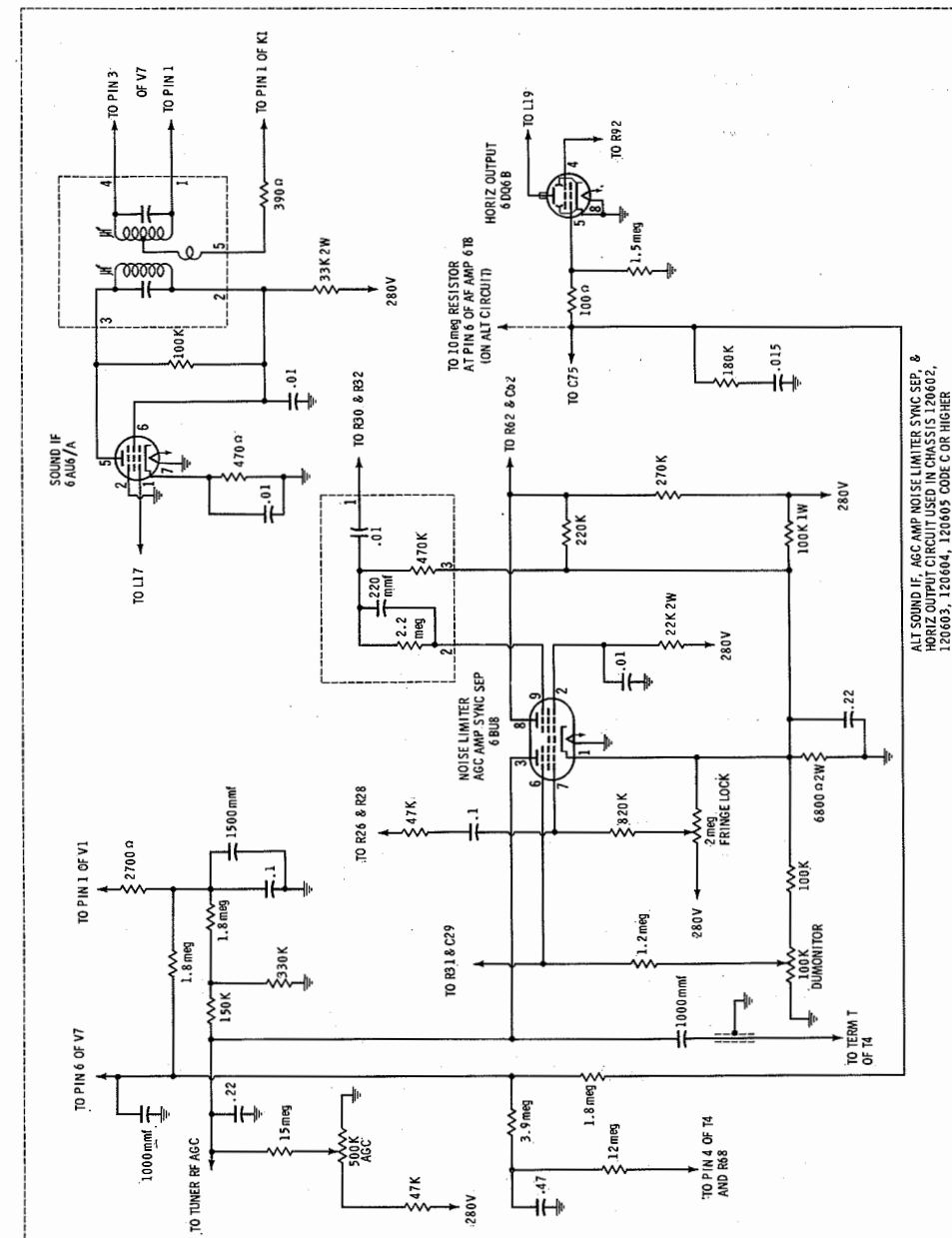
WIRING DATA

High Voltage Lead	Use BELDEN No. 8899
Shielded Hook-up Wire	Use BELDEN No. 8885 (Single Conductor) 8738 (Two Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in Ten Colors 8524 (Stranded) Available in Ten Colors
Power Cord (Interlock Type)	Use BELDEN No. 8874
300Ω Tuner Input Lead	Use BELDEN No. 8225
300Ω Antenna Lead-in	Use BELDEN No. 8230 or 8275
Antenna Rotor Cable	Use BELDEN No. 8464 (Flat) or 8484 (Round) - 4 Conductor 8485 (Round) - 5 Conductor 8488 (Round) - 8 Conductor

CABINETS & CABINET PARTS

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

DESCRIPTION	PART NO.	MODEL NO.	RA700, A, B, C-B50	RA700, A, B, C-B51	RA700, A, B, C-B52	RA700, A, B, C-B53	RA700, A, B, C-B54	RA700, A, B, C-B55	RA700, A, B, C-B56	RA700, A, B, C-B57	RA700, A, B, C-B58	RA700, A, B, C-B59	RA700, A, B, C-B60	RA700, A, B, C-B61	RA700, A, B, C-B62	RA700, A, B, C-B63	RA700, A, B, C-B64	RA700, A, B, C-B65	RA700, A, B, C-B66	RA700, A, B, C-B67	RA700, A, B, C-B68	RA700, A, B, C-B69	RA704, A, B, C-B70	RA704, A, B, C-B71	RA704, A, B, C-B72	RA704, A, B, C-B73	RA704, A, B, C-B74	RA704, A, B, C-B75	RA704, A, B, C-B76	RA704, A, B, C-B77	
Dial Glass-Radio	520305																						X	X	X	X	X	X			
Dial Glass-Radio	520287																													X	X
Mask-Gold	461393		X	X			X	X	X	X	X	X	X	X	X	X			X	X	X	X				X	X	X	X	X	X
Mask-Silver	461393A		X	X	X	X			X		X		X				X	X					X	X							
Knob- VHF Channel Selector Gold	400056			X				X		X		X		X		X				X		X					X	X	X	X	
Knob- "	400062		X				X		X		X		X		X				X		X				X		X				
Knob- VHF Channel Selector Silver	400056A			X		X												X						X							
Knob- "	400062A		X		X												X							X							
Knob- "Parma-Tune" Gold Fine Tuning	400060		X	X			X	X	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X	X	X	X
Knob- "Parma-Tune" Silver Fine Tuning	400060A		X	X	X	X											X	X					X	X							
Knob- Bass, Brightness, Fringe Lock	45009321		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Knob- Treble, Contrast, Vertical Hold	461090A		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Knob-Horizontal Hold	45009341		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Knob-AM FM Tuning(Radio)	461302																						X	X							
Knob- "	461408																								X	X	X	X			
Knob- "	461211																													X	X
Loudness, Bass, Treble, Balance, Function-Preamplifier	461413																						X	X							
Knob- "	461409																								X	X	X	X			
Knob- "	461210																								X	X	X	X			
Pushbutton-On-Off, Volume Gold	400061		X	X			X	X	X	X	X	X	X	X	X	X			X	X	X	X			X	X	X	X	X	X	X
Pushbutton-On-Off, Volume Silver	400061A		X	X	X	X											X	X					X	X						X	X
Knob- UHF Channel Selector Gold	400063																														
Knob- UHF Channel Selector Silver	400063A																														



ALTERNATE CIRCUITS

A PHOTOFACT STANDARD NOTATION SCHEMATIC
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DUMONT CHASSIS 120482B, 523B, 543B, 563B, 568B, 602A, 603A, 604A, 605A

FOLDER 1

TUBES					
GENERAL ELECTRIC			RAYTHEON		SYLVANIA
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	1st Video IF Amp.	6CB6A (6DE6) *	V8	Audio Output	6AQ5A
V2	2nd Video IF Amp.	6CB6A	V9	Vert. Mult. - Vert. Output	6EM47
V3	3rd Video IF Amp.	6CB6A	V10	Horiz. AFC	6B91/8A15
V4	Video Output	12BY7A	V11	Horiz. Mult.	8C7
V5	AGC Amp. - Sync Sep. - Noise Limiter	8BU8	V12	Horiz. Output	6DQ6B
V6	Sound IF Amp.	6AU6	V13	Damper	6AX4GTB
V7	Ratio Det. - AF Amp. - AGC Clamper	6T8A	V14	HV Rectifier	(8DA4A, 6DE4) *
			V15	LV Rectifier	1K3
					5U4GB

* Used in Chassis coded Δ or higher.

* Alternate

PICTURE TUBE					
REPLACEMENT DATA					
ITEM No.	DUMONT PART No.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	SYLVANIA PART No.	NOTES
V16	28YP4 24AEP4	24AEP4 ①	23YP4 ① 24AEP4 ①	23YP4 ② 24AEP4 ②	① Aluminized ② Silver Screen "85"

ELECTROLYTIC CAPACITORS									
REPLACEMENT DATA									
ITEM No.	RATING	DUMONT PART No.	AEROVOX PART No.	CORNELL-DUBIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	NOTES	
C1	80 400	03100602	AFH1-47	A0420	FPI49	TMB-1710	TVL-1735	* * *	
C2A	40 400	03100546	AFH4-57-85	D0477.5	FP431.7	TMT-3501	TVL8-4670.9		
B	40 400				TC897	TD-100-50			
C	40 400								
D	100 50								
C3	20 400	925538	PR81735	BR2045	TC75	TD-20-460	TVA-1709		
C4	10 500	925540	PR81810	BRI250	TC82	TD-10-500	TVA-1903		
C5	5 100	03138387	PR81405	BBR4-150	TC40	TD-4-150	TVA-1403		

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

FIXED CAPACITORS									
REPLACEMENT DATA									
ITEM No.	RATING	REMARKS	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBIER PART No.	ELMENCOPART No.	MALLORY PART No.	SPRAGUE PART No.	
C6	.068 200V		P488N-068	D0-203	CUB4888	4DP-3-693	GEM-4168	4TM-568	
C7	.02		BPD-02	DD-203	BYB652	CCD-203	B-120	5HK-D10	
C8	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C9	91 5%		1469-000091	TCZ-91	22R5Q91	CM-18B-910J	MS-491		
C10	68 5%		1469-000068	TCZ-68	22R5Q68	CM-18B-680J	MS-468		
C11	5.6 NPO 5%							10TCC-V56	
C12	33 NPO 5%							10TCC-Q33	
C13	4.7 NPO 5%							10TCC-V47	
C14	1.5 10%							10TCC-V15	
C15	27 NPO 5%							10TCC-Q27	
C16	.047 200V		P288N-047	DD-503	CUB4847	4DP-3-473	GEM-4147	4TM-547	
C17	.0015		BPD-0015	DD-152	BYA10D15	CCD-152	B-215	5HK-D15	
C18	.0015		BPD-0015	DD-152	BYA10D15	CCD-152	B-215	5HK-D15	
C19	.0015		BPD-0015	DD-152	BYA10D15	CCD-152	B-215	5HK-D15	
C20	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C21	.0015		BPD-0015	DD-152	BYA10D15	CCD-152	B-215	5HK-D15	
C22	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C23	470 10%		DI-470	DD-471	5R5T47	CCD-471	GP347	10TS-T47	
C24	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C25	3.9 NPO ± 25 mmf							10TCC-V39	
C26	4.7 NPO ± 5 mmf							10TCC-V47	
C27	.015 400V		NPO-DI 4.7	DTZ-4R7	C10Q47C	CCTO-4R7	CNO-547	4TM-547	
C28	47 NPO 5%		P488N-015	DD-153	CUB4P15	4DP-1-153	GEM-4115	4TM-S15	
C29	.022 400V							10TCC-Q47	
C30	.1 400V		P488N-022	DD-203	CUB4S22	4DP-2-223	GEM-4122	4TM-S22	
C31	.001		P488N-01	DD-104	BYA10D1	CCD-102	B-210	5HK-D10	
C32	.047 400V		P488N-047	DD-503	CUB4S47	4DP-3-473	GEM-4147	4TM-S47	
C33	.022 400V		P488N-022	DD-203	CUB4S22	4DP-2-223	GEM-4122	4TM-S22	
C34	.015 600V		P488N-015	DD-153	CUB4S15	4DP-2-153	GEM-4115	4TM-S15	
C35	.1 400V		P488N-01	DD-104	CUB4P1	4DP-3-104	GEM-401	4TM-P10	
C36	100 10%							10TS-T10	
C37	47 NPO 10%		NPO-DI 47	DTZ-47	C10Q47C	CCTO-470	CNO-447	10TCC-Q47	
C38	2.2 10%		NPO-SI 2.2	TCZ-2R2	C10V22C	CCTO-2R2	CNO-522	10TCC-V22	
C39	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C40	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C41	470		SI 470	DD-471	BYA10T47	CCD-471	GP347	10TS-T47	
C42	.015 200V		P288N-015	DD-153	CUB4S15	4DP-1-153	GEM-4115	4TM-S15	
C43	.0047		BPD-0047	DD-472	BYA10D47M	CCD-472	B-247	5HK-D47	
C44	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C45	.0047		BPD-0047	DD-472	BYA10D47M	CCD-472	B-247	5HK-D47	
C46	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C47	470		SI 470	DD-471	BYA10T47	CCD-471	GP347	10TS-T47	
C48	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C49	.0022 10%		DI-2200	DD-103	PM8D22	CCD-222	GP-222	10TS-D22	
C50	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10	
C51	.01		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10	
C52	.0033 600V		P688N-0033	DD-332	CUB4S33	4DP-1-332	GEM-4233	6TM-D33	
C53	330		DI-330	DD-331	LIOT33	CCD-331	B-333	10TS-T33	
C54	.047 400V		P488N-047	DD-503	CUB4S47	4DP-3-473	GEM-4147	4TM-S47	
C55	.01 400V		P488N-01	DD-103	CUB4S1	4DP-1-103	GEM-411	4TM-S10	
C56	.033 600V 10%		V84C6S33-10%	DD-103	PM6S33	6DP-3-333	GEM-1613	6TM-S33	
C57	.01 600V		P688N-01	DD-103	CUB6S1	6DP-2-103	GEM-611	6TM-S10	
C58	.0022 400V		P488N-0022	DD-222	CUB6D22	6DP-1-222	GEM-6222	6TM-D22	
C59	.1 600V		P688N-01	DD-103	CUB6P1	6DP-4-104	GEM-601	6TM-P10	
C60	470 10%		DI-470	DD-471	5R5T47	CCD-471	GP347	10TS-T47	
C61	.01 600V		P688N-01	DD-103	CUB6S1	6DP-2-103	GEM-611	6TM-S10	
C62	88 N330 10%							10TCS-Q68	
C63	75 N470 10%								
C64	.0027 800V 10%								
C65	33 N330 10%								
C66	.01 200V								
C67	.068 200V 10%								
C68	.0022 400V								
C69	.0033 400V 5%								
C70	100 N750 10%								
C71	390 5%								
C72	470								
C73	390 5%								
C74	220 10%								
C75	.0047								

Note 1

TV PARTS LIST AND DESCRIPTIONS

FIXED CAPACITORS (cont)

ITEM No.		RATING	REMARKS	REPLACEMENT DATA					
				AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBIER PART No.	ELMENCOPART No.	MALLORY PART No.	SPRAGUE PART No.
C76		.047 400V		P488N-047	DD-503	CUB4S47	4DP-3-473	GEM-4147	4TM-S47
C77		.033 1000V 10%		P1084CM-033		DPMS18S33	18DP-5-333	GEM-1813	10TM-S33
C78		75 2000V 10%				HVA20Q75	VCM-20-750K	2DY-482	
C79		.047 600V		P688N-047	DD-503	CUB6S47	6DP-3-473	GEM-6147	6TM-S47

Note 1. May not be used in some versions.

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

CONTROLS

ITEM No.		RATING	REMARKS	REPLACEMENT DATA						INSTALLATION NOTES
		RESISTANCE	WATTS	DUMONT PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.		
R1A		1meg		01072161 ①	BPL-74					Volume
B		700K Tap								
R2A		1.5meg		01072152 ②	Not Req.					Push-Push Off-On
B		1.5meg			FI-53					Base
R3A		500K		01077432	R2-52					Treble
B		500K			FI-40					Brightness
R4A		5000 Ω	4(WW)	01026092	Not Req.					Contrast
B		5000 Ω			WW-502					
R5A		2meg		01072151	Not Req.					Fringe Lock (Sync Stab.)
B		750K			FI-87					Vert. Hold
R6A		500K		01056042	R2-51					AGC Delay (RF)
B		500K			TT-59					
R7A		1.75meg		01071743	Not Req.					Dumonitor (AGC)
B		1.75meg			TT-75					
R8		2000 Ω	2(WW)	390656	Not Req.					Vert. Linearity
R9		7.5meg		01071091	Not Req.					Vert. Size (Height)
		5.5meg Stop			TT-90					
R10A		15K	2(WW)	01070521	WN-153					Horiz. Size
B		15K			FKS-1/2					
R11A		200K		01071041	Not Req.					Horiz. Frequency Set
B		200K			TT-46					
					Not Req.					

① Chassis 120803A uses Part #390655. Chassis 120604A, 605A uses Part #390614.

② Used in Chassis 120602A, 604A only.

† "CONCENTRIKIT" Equivalent: K-8 Kit with Base Elements and Shafts: B17-139, P17-024 (Panel)

(Not available as a factory assembled unit).

†† "CONCENTRIKIT" Equivalent: K-2 Kit with Base Elements and Shafts: B11-133, P1-024 (Panel).

(Not available as a factory assembled unit).

‡ "STA-LOC" Equivalent: FA155R, RU16A, OS687, IS125.

▲ "STA-LOC" Equivalent: FB261, RU754L, OS687, IS125.

* Use 1meg Resistor in series with right hand terminal, viewed shaft end terminals down.

RESISTORS

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

REPLACEMENT DATA					REPLACEMENT DATA				
ITEM No.	RATING	IRC PART No.	WORKMAN TV PART No.	REMARKS	ITEM No.	RATING	IRC PART No.	WORKMAN TV PART No.	REMARKS
R12	2.2meg	PW5-5600	5W-SQ-5600		R56	2.2meg			Note 1
R13	5600Ω 5W				R57	3.3meg			
R14	2700Ω				R58	180K			
R15	470Ω				R59	330K			
R16	47Ω				R60	1.8meg			
R17	22K				R61	2.7meg			
R18	470Ω				R62	150K			
R19	100K				R63	22K			
R20	18Ω				R64	150K			
R21	6800Ω				R65	470K			
R22	100K				R66	6800Ω			
R23	2200Ω				R67	56K 1W			
R24	8200Ω 2W				R68	47K 1W			
R25	180Ω				R69	2.2meg			
R26	3300Ω				R70	100K 1W			
R27	47K				R71	47K 1W			
R28	4700Ω				R72	100K			
R29	15K				R73	47Ω			
R30	39K				R74	680Ω 2W			
R31	6.8meg				R75	330Ω 1W			
R32	27K	R76	2700Ω						
R33	470Ω	R77	22K						
R34	620Ω 1W	R78	560Ω						
R35	12K 2W	R79	560Ω						
R36	27K 1W	R80	1meg						
R37	150K	R81	1meg						
R38	100K	R82	1800Ω						
R39	1000Ω	R83	22K 1W						
R40	10K 4W	R84	1.2meg						
R41	8200Ω 2W	R85	68K						
R42	470Ω	R86	8200Ω 1W						
R43	390Ω	R87	47K						
R44	22K	R88	120K						
R45	10meg	R89	1300Ω						
R46	470K	R90	15K						
R47	470K	R91	100Ω						
R48	1500Ω 4W	R92	100Ω						
R49	220Ω 1W	R93	10K 4W						
R50	4700Ω 1W	R94	4700Ω						
R51	150K	R95	2Ω						
R52	120K	R96	10K						
R53	2.7meg	R97	220K						
R54	150K	R98	27Ω						
R55	270K								
		PW4-1500	4G-10K						
		PW4-1500	4W-SQ-1500				PW4-10K	4G-10K	