

CABINET-REAR VIEW

SERVICING IN THE FIELD

CRT IMPLOSION PROTECTION AND CLEANING

Implosion protection is an integral part of the picture tube, cleaning accomplished without CRT removal.

FUSE DEVICES

A 2-amp fuse is used for AC line protection. (See photo, Cabinet-Rear View.)

VHF TUNER

The fine tuning mechanically engages oscillator slug for adjustment (one slug for each channel).

UHF TUNER

The UHF tuner employs a detent mechanism for channel selection. Fine tuning is adjusted by rotating the fine tuning knob.

HORIZONTAL OSCILLATOR

Adjustment of the horizontal hold is accomplished by the proper setting of the horiz hold coil. (See Placement Chart.)

AGC

The AGC may be varied by an RF AGC control. (See photo, Cabinet-Rear View.)

CENTERING

Centering is accomplished by proper adjustment of two magnetic rings located on the yoke rear cover. (See photo, Cabinet-Rear View.)

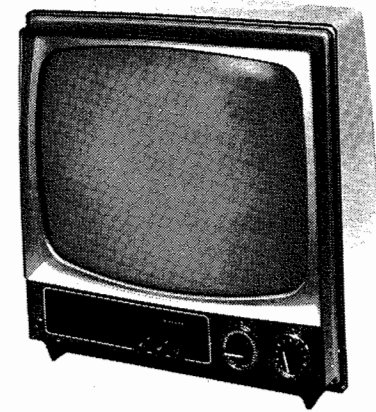
SET 1761 FOLDER 1
GENERAL ELECTRIC
CHASSIS XB-A, XB-B

PHOTOFACT® Folder with CIRCUITRACE®

For Supplier Address See PHOTOFACT Index

GENERAL ELECTRIC
CHASSIS XB-A, XB-B

MODEL	CHASSIS
XB2410SD (B01)	XB-B
XB2411SY (B01)	XB-B
XB2411TC (B01)	XB-B
XB2411VY (B01)	XB-B
XB2440VY (B01)	XB-B
XB2441BK (B01)	XB-B
XB2461SL (B01)	XB-B
XB2507TC (A03)	XB-A
XB2513MO (B01)	XB-B
XB2518WD (B01)	XB-B
XB2519WD (B01)	XB-B
XB3161BK (A01)	XB-A
XB3163VY (A01)	XB-A
XB3343WD (A01)	XB-A
XB3344CO (A01)	XB-A



Model XB3163VY (A01)

SAFETY PRECAUTIONS

Make sure line voltage does not exceed rating of set. Check high-voltage regulation and adjust to correct value. Be sure shields and rear cover are in place and secure.

Beware of shock from high voltage or AC line. Discharge high voltage to HV cage only. Use extreme care when handling picture tube. Do not bump, scratch, or exert undue strain.

CAUTION: One side of AC line connected to chassis. Use isolation transformer for servicing. Make certain isolation networks are in place and exposed metal is safe to touch before returning set to customer.

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HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206



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 the particular type of replacement part listed.

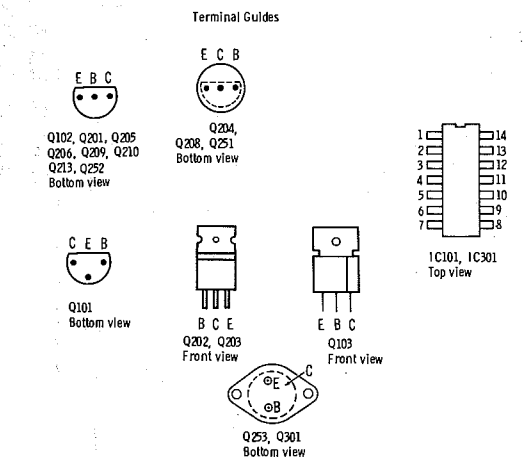
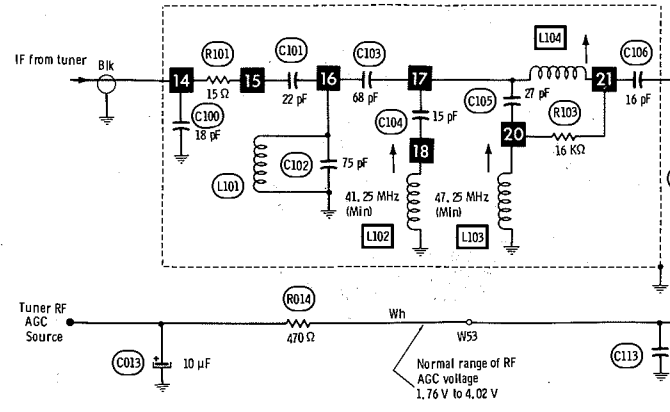
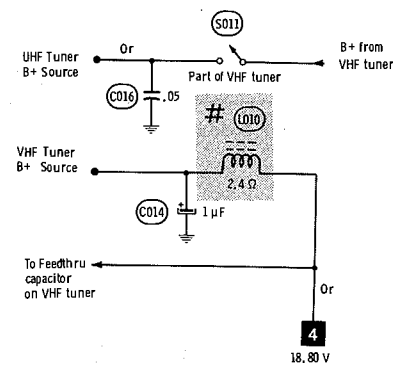
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DATE 9-78 SET 1761 FOLDER 1

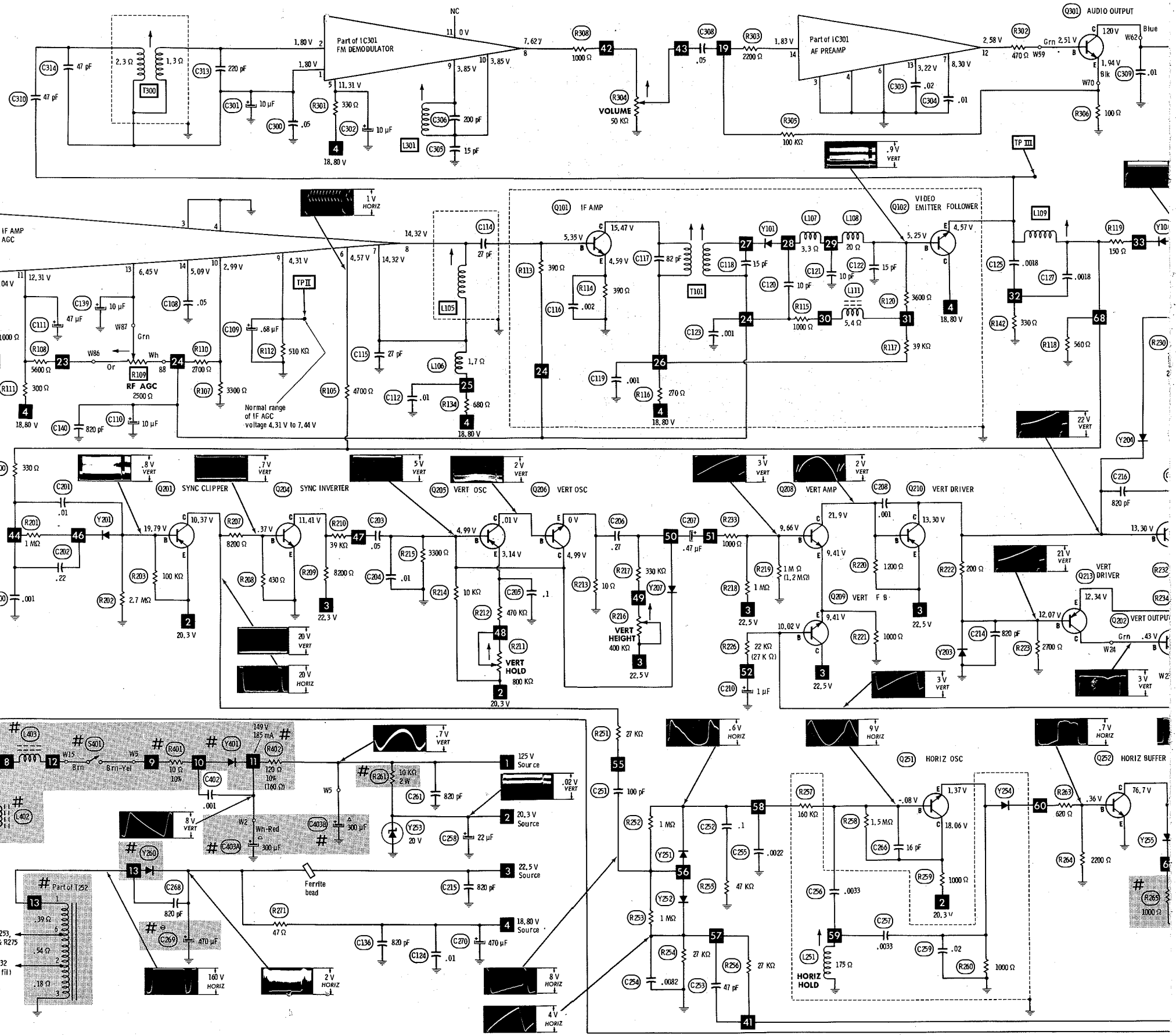
GENERAL ELECTRIC
CHASSIS XB-A, XB-B

SET 1761 FOLDER 1



For SAFETY use only equivalent replacement part.
 - Circuitry not used in some versions
 - Circuitry used in some versions
 e See parts list
 * Nominal value
 = Ground

Waveforms: triggered scope, keyed rainbow generator
 Item numbers in rectangles appear in the alignment/adjustment instructions.
 Supply voltage maintained as shown at input.
 Voltages measured with digital meter, no signal.
 Controls adjusted for normal operation.
 Arrow at control indicates direction of advance.
 Terminal identification may not be found on unit.
 Resistors are 1/2W or less, 5% unless noted.
 Value in () used in some versions.



DISASSEMBLY INSTRUCTIONS

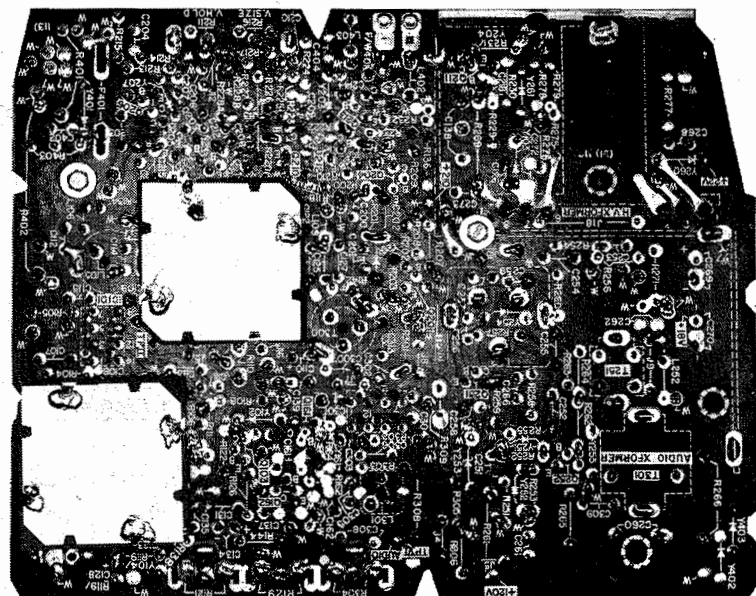
CHASSIS REMOVAL

Remove five screws holding cabinet back. Disconnect antenna lead and lift cabinet back from set. Remove all knobs from cabinet front.

Disconnect CRT socket, HV anode lead, speaker wires and ground wires. Loosen and remove deflection yoke from neck of CRT. Remove nut holding earphone jack. Remove four screws holding tuner assembly to cabinet front. Lift main board and control assemblies from cabinet.

CRT REMOVAL

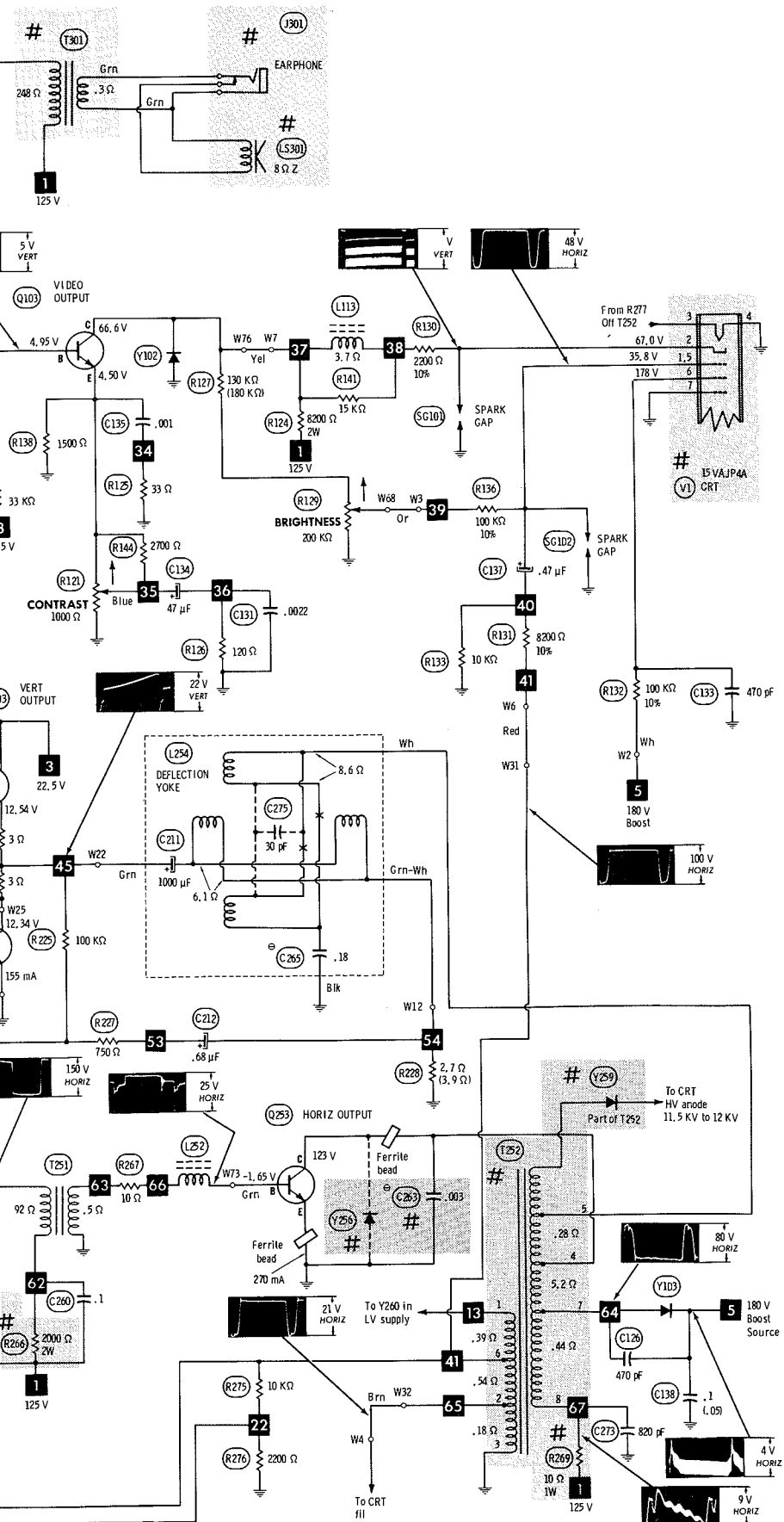
Follow "Chassis Removal" procedure and lay set face down on a soft protective surface. Remove four screws holding CRT and lift CRT from cabinet. Do not lift CRT by the neck.



MAIN BOARD-SHIELD LOCATION

GENERAL ELECTRIC
CHASSIS XB-A, XB-B

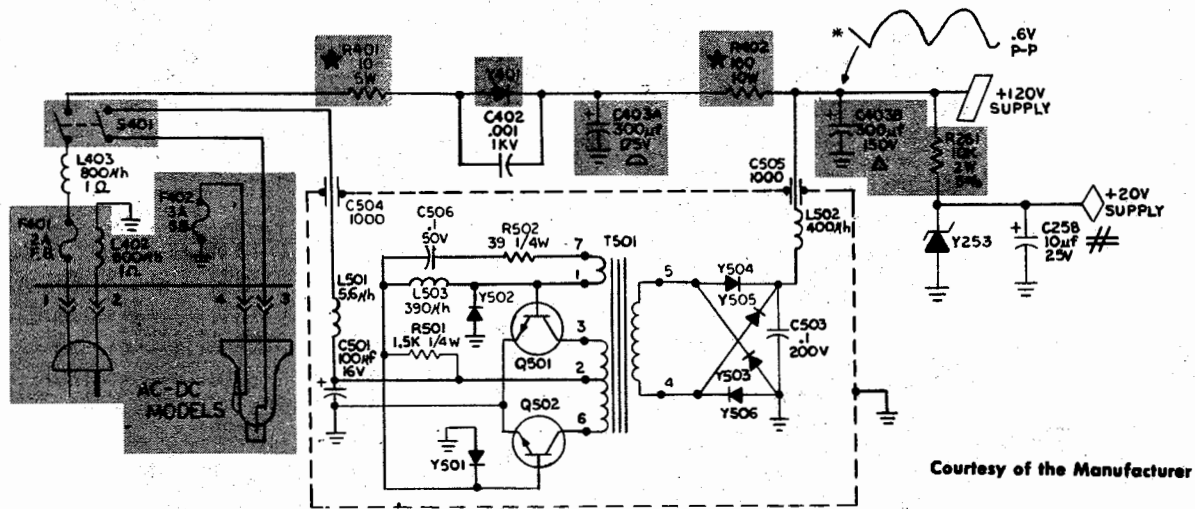
FOLDER 1



RESISTANCE MEASUREMENTS

MEASUREMENTS BELOW TAKEN WITH METER HAVING .08V MAX BETWEEN PROBE TIPS													
ITEM	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8	PIN 9	PIN 10	PIN 11	PIN 12	PIN 13
V1	200K	28K(1)	FIL	FIL	200K	570K	0						
IC101	6500	6500	0	0	2600	5400	4200	4200	510K	2600	4300	8000	4600
IC301	INF	INF	0	0	4300	0	12K	9000	6000	6000	INF	11K	9500
ITEM	E	B	C		ITEM	E	B	C		ITEM	E	B	C
Q101	390	4600	4200		Q204	0	430	12K		Q213	INF(2)	2000	INF(2)
Q102	560	8000	3600		Q205	750K	3000	INF(2)		Q251	1000	900K	13K(1)
Q103	620	40K	27K(1)		Q206	10	INF(2)	3000		Q252	0	2200	24K(1)
Q201	12K(1)	110K	8600		Q208	1000	520K	5000		Q253	0	10	22K(1)
Q202	0	INF(2)	INF(2)		Q209	1000	INF(2)	4000		Q301	100	11K	22K(1)
Q203	INF(2)	2200	4000		Q210	4000	5000	2200					

(1) This reading will vary depending upon the condition of the electrolytic in the circuit.
(2) Reading depends upon polarity of meter connections.



TROUBLESHOOTING CHECK CHART

The following chart lists component failures most likely to produce the indicated symptoms.

SWEEP

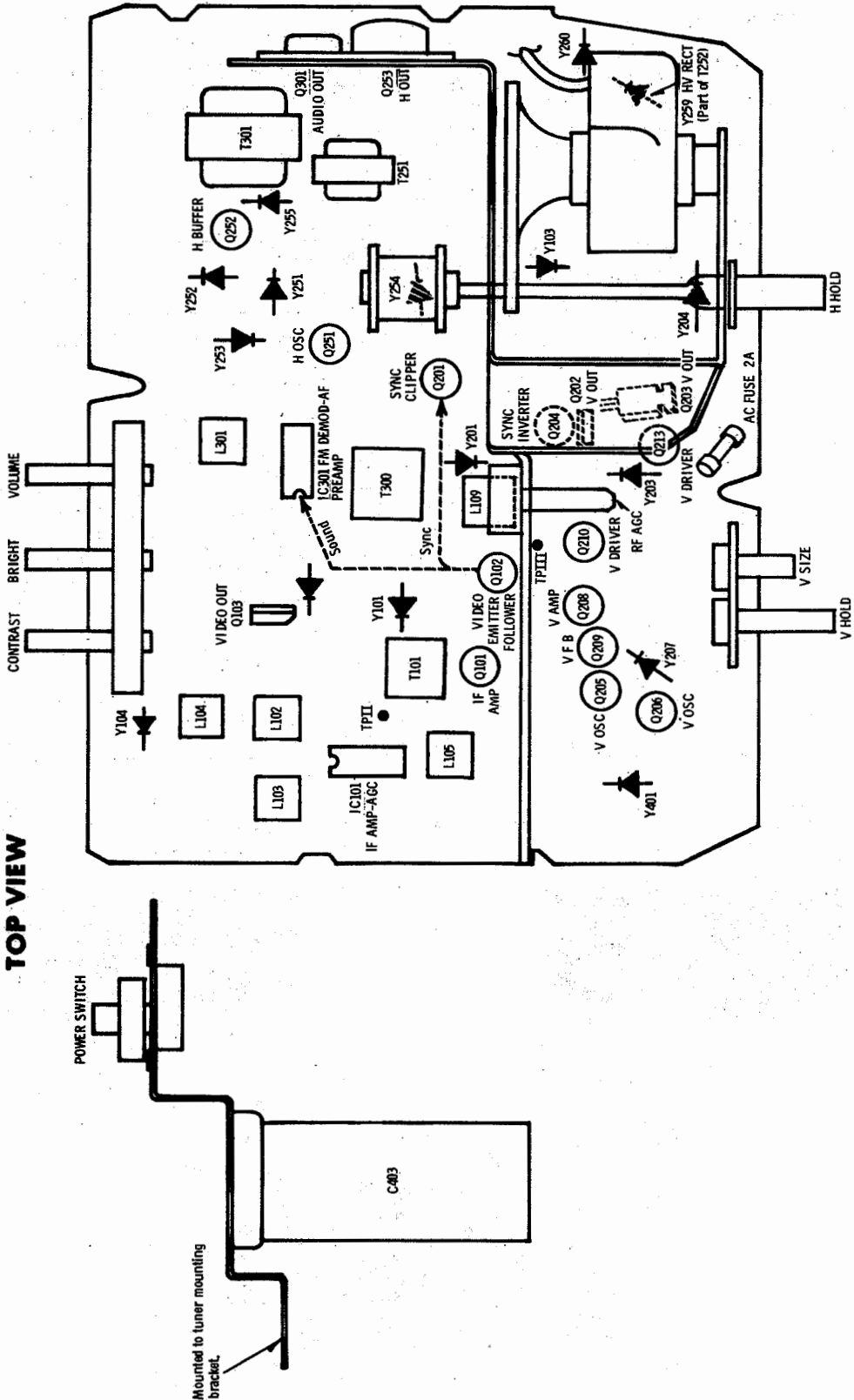
NO RASTER, HAS SOUND: Y259,CRT.
NO RASTER, NO SOUND: Horiz Osc/Buffer/Output, Y254,Y255,Y256,Y260.
NO VERT DEFLECTION: Vert Osc/Amp/F.B./Driver/Output
POOR VERT LIN OR FOLDOVER: Vert Osc/Amp/F.B./Driver/Output,Y203.
POOR HORIZ LIN OR FOLDOVER: Horiz Buffer/Output, Y255.
NARROW PICTURE: Horiz Buffer/Output,Y254,Y255 Y256.
VERT OFF FREQ: Sync Inverter,Vert Osc,Y207.
HORIZ OFF FREQ: Horiz,Osc,Y251,Y252.

SYNC

NO VERT SYNC: Sync Inverter,Vert Osc.
NO HORIZ SYNC: Horiz Osc,Y251,Y252.
NO VERT/HORIZ SYNC: Sync Clipper,Y201.

PICTURE or SOUND

NO PIC, NO SOUND, NO RASTER: Fuse,Y401,Y253.
NO PIC, NO SOUND, HAS RASTER: Tuner, IF Amp-AGC, IF Amp,Video Emitter Follower,Y101.
NO PIC, NO SOUND, HAS SNOW: Tuner,IF Amp-AGC.
NO PIC, HAS SOUND, NO RASTER: Video Output,Y102, Y104,Y204,CRT.
NO PIC, HAS SOUND, HAS RASTER: Video Emitter Follower/Output,Y102,Y104.
HAS PIC, NO SOUND: FM Demodulator,AF Preamp, Audio Output.
OVERLOADED PICTURE: IF Amp-AGC,Y101.



GENERAL ELECTRIC
CHASSIS XB-A,XB-B

FOLDER 1

PLACEMENT CHART

TV ALIGNMENT INSTRUCTIONS

Use an isolation transformer, or observe polarity, and maintain line voltage at 120VAC. Allow a 20-minute warm-up period for receiver and test equipment.

Suggested Alignment Tools: GC ELECTRONICS
VHF Tuner IF Output Coil, L301, T101 9296, 9297, 9300
L102, L103, L104, L105, L109, T300 8606, 8606L, 8869

PRELIMINARY INSTRUCTIONS

Set the channel selector to the highest unused channel. Set scope sweep to external. Connect scope vertical input to scope vertical input on sweep/marker generator. Connect scope external horizontal input to scope horizontal input on sweep/marker generator. Ground test equipment to TV chassis unless specified otherwise. Use only enough generator output to provide a usable indication. Note: Response may vary slightly from that shown. Connect a +7-volt bias to TP11.

VIDEO IF ALIGNMENT

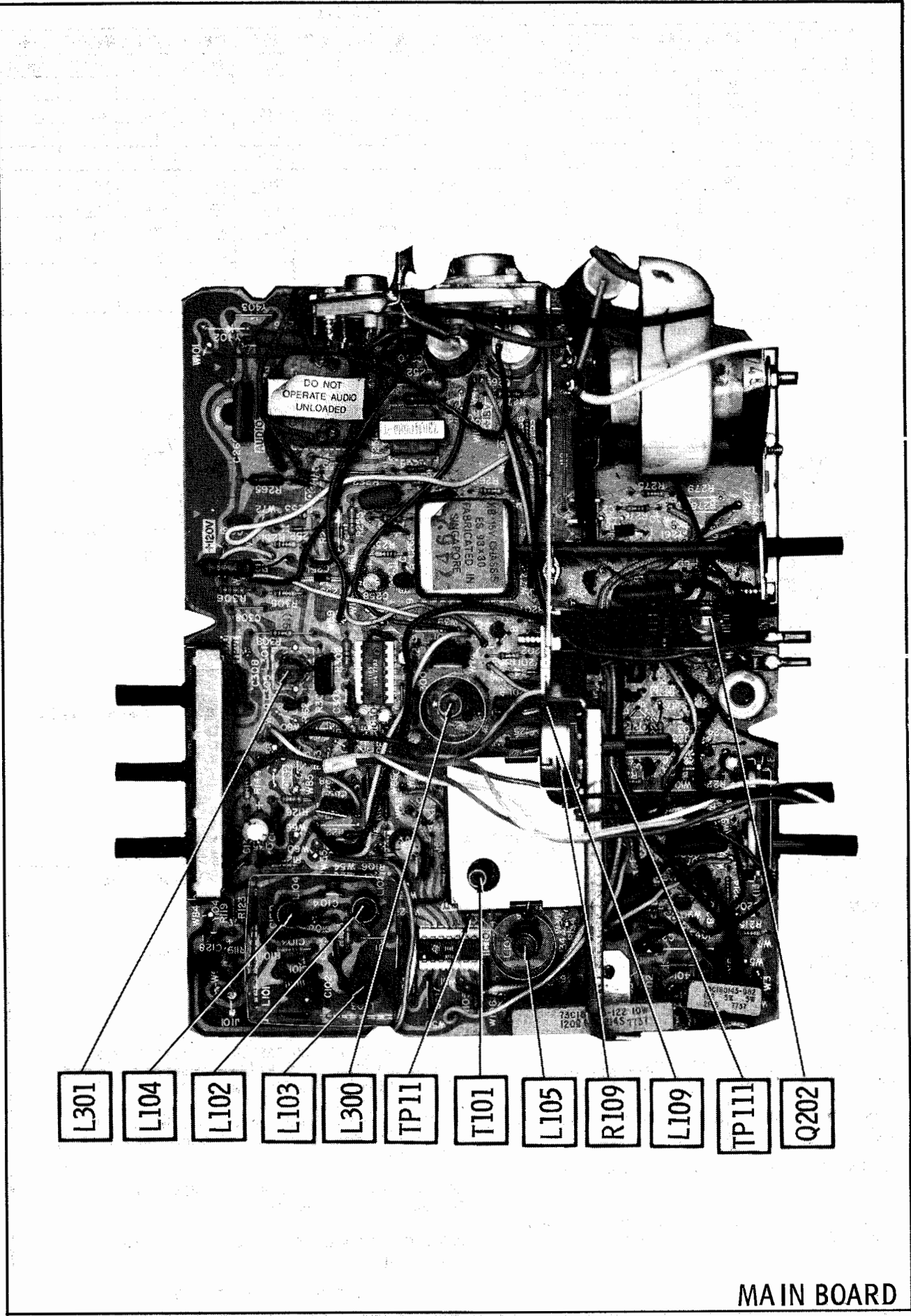
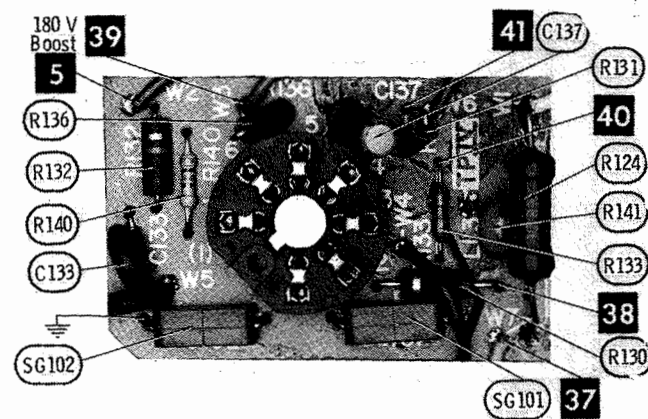
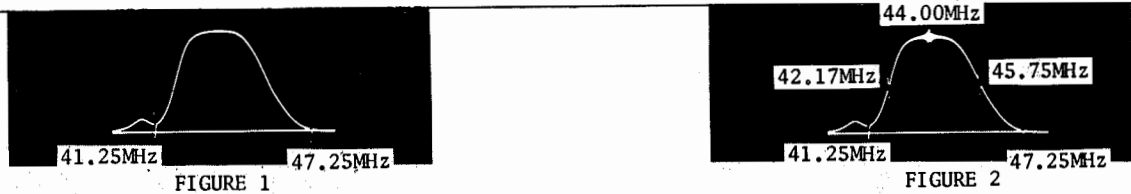
DIRECT PROBE FROM SWEEP/MARKER GENERATOR	SWEEP GENERATOR OUTPUT	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
To TP111.	To TP (mixer base) on VHF tuner.	44MHz (10MHz Sweep)	41.25MHz	Adjust L102 for MINIMUM.
			47.25MHz	Adjust L103 for MINIMUM.
				See Figure 1.
"	"	"	41.25MHz	Adjust VHF Tuner IF Output Coil, L104,
			42.17MHz	L105, T101 (Top & Bottom) for maximum gain
			44.00MHz	and symmetry of response.
			45.75MHz	L104 affects 45.75MHz.
			47.25MHz	L105 and T101 (Bottom) affect 42.17MHz.
				T101 (Top) affects 42.17MHz and 45.75MHz.
				VHF Tuner IF Output Coil affects overall
				response.
				See Figure 2.

4.5MHz TRAP ALIGNMENT

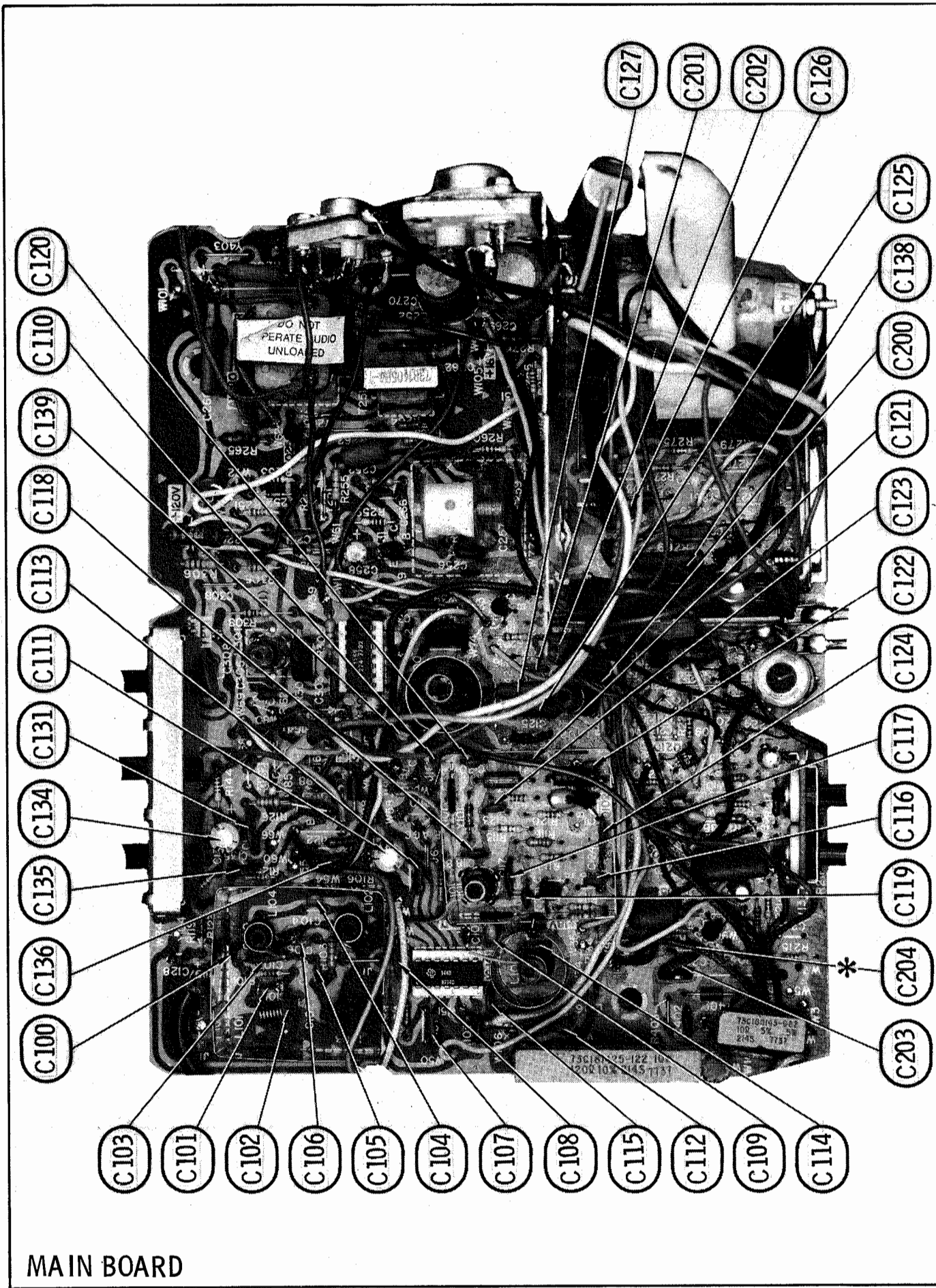
Tune in a strong TV signal and set the contrast at maximum. Adjust the fine tuning until a beat pattern is visible on the screen. Adjust L109 for MINIMUM beat interference.

SOUND IF ALIGNMENT

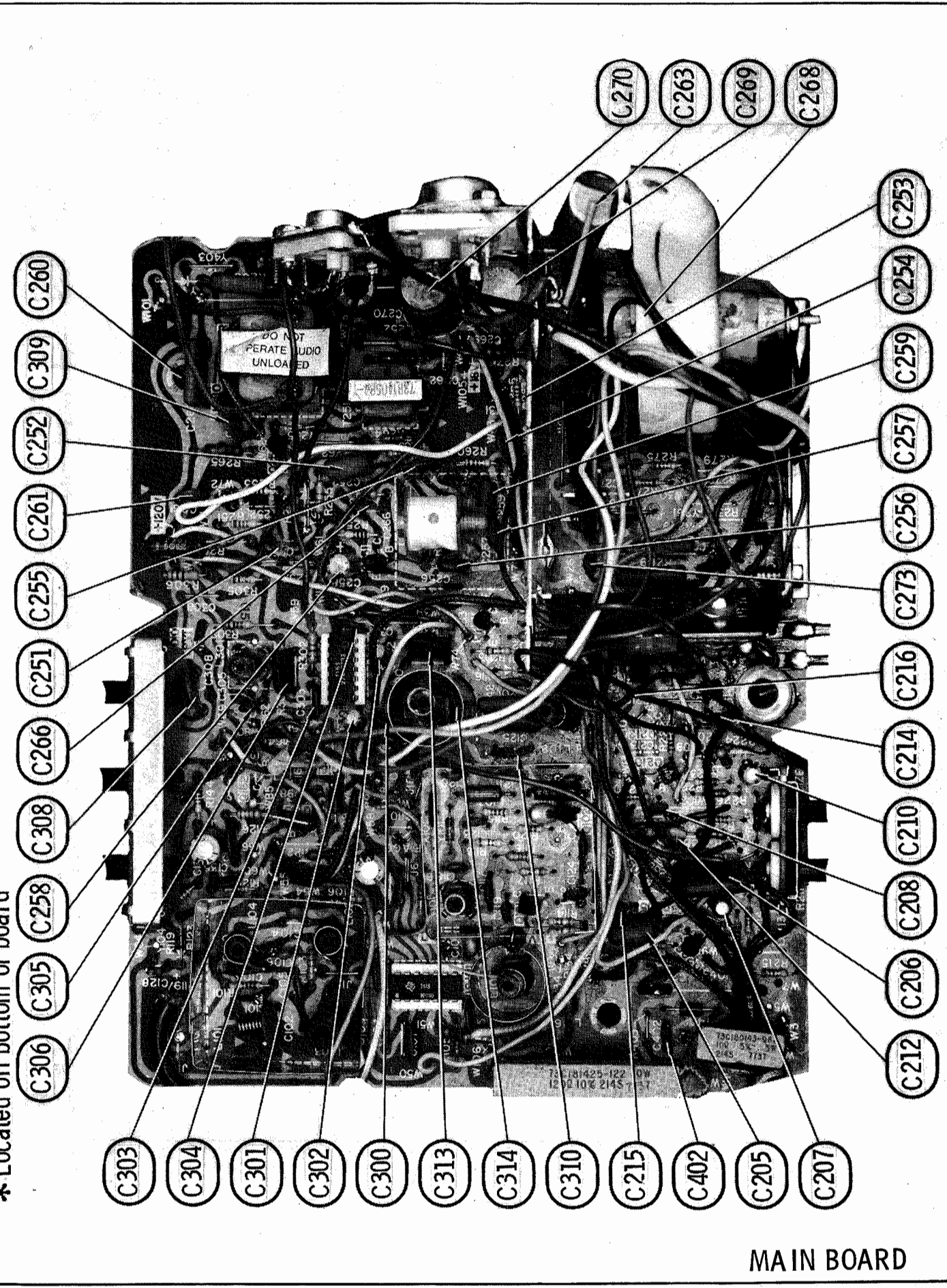
Tune in a station and adjust L301 for maximum sound. Reduce signal strength at the antenna terminals until distortion appears. Continue to reduce the signal while aligning for undistorted output by adjusting T301.



MAIN BOARD



* Located on bottom of board

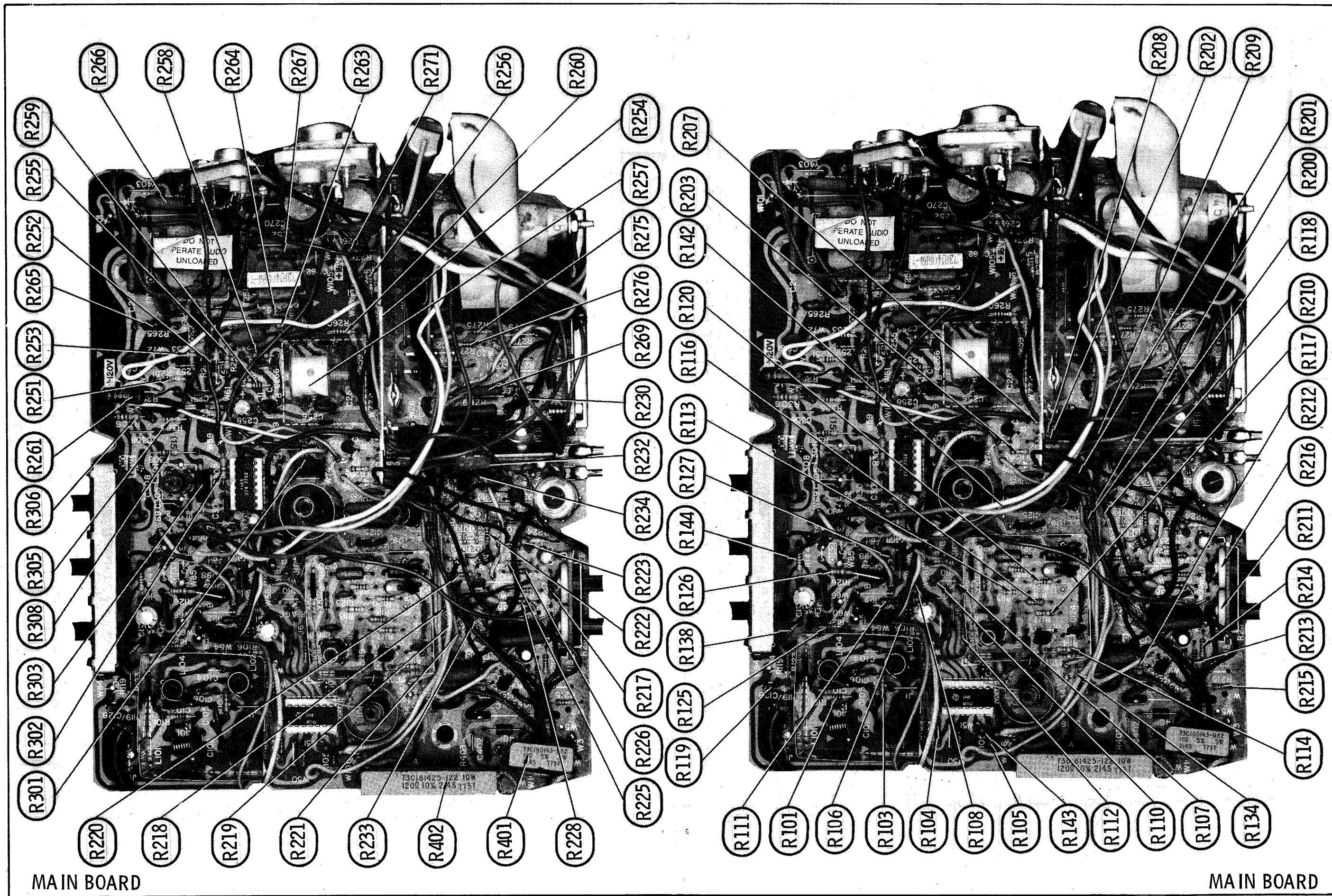


MAIN BOARD

MAIN BOARD

GENERAL ELECTRIC
CHASSIS XB-A, XB-B

FOLDER 1



GENERAL ELECTRIC
CHASSIS XB-A, XB-B

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

Replacement parts shown may be superseded by the availability of newly introduced replacements. Have your local distributor check Sams COUNTER FACTS® for the most up-to-date replacement.

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
# T301	6300	8	ES64X13 738140700-2(1)			# For SAFETY use only equivalent replacement part. (1) Number on unit.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
# LS301	3" PM, 8 Ohms	ES95X9	30A05Z8	# For SAFETY use only equivalent replacement part.

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER	DEVICE
F401	2A @ 250V Quick-acting Pigtail	ES10X46		GJV2		318002		
F402	3A @ 125V Slow-blow Pigtail	ES10X21(1)		MDV3		315003		

For SAFETY use only equivalent replacement part.
(1) Used in AC/DC Models XB2441BK, XB2461SL.

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
# J301	Earphone Jack	EP8X49	Used in Models XB2440VY, XB2461SL, XB2519WD, XB3163VY, XB3344CO.
SG101	Spark Gap	ES41X7	
SG102	Spark Gap	ES41X7	
SG401	Spark Gap	ES41X7	
# S401	Switch	ES39X22	On-Off
	Switch	ES39X23	On-Off, Used in Models XB2441BK, XB2461SL.
	AC/DC Interlock	ES38X13	AC/DC Models Includes Fiber Board With Terminals.
	AC Power Cord	EP66X1	
	AC Power Cord	ES66X16	Used in Models XB2441BK, XB2461SL.
	DC Power Cord	ES66X31	Used in Models XB2441BK, XB2461SL.
	Anode Connector	ES8X29	
	Earphone	EP90X2	Used in Models XB2440VY, XB2461SL, XB2519WD, XB3163VY, XB3344CO.
	Magnet	ES42X48	Correction
	Printed Circuit Board	ES93X31	CRT
	Socket	ES34X3	CRT
	VHF Antenna	ES83X3	RUSSELL Assembly Replacement GEN-1H
	UHF Tuner	ES85X25	
	UHF Tuner	ES85X22	
	UHF Tuner	ES86X26	

For SAFETY use only equivalent replacement part.

CABINETS & CABINET PARTS (When ordering specify model, chassis & color)

ITEM	PART No.	PART No.	PART No.	PART No.	PART No.
Cabinet Back	MODEL XB2507TC	MODEL XB2410SD	MODEL XB2411SY	MODEL XB2411TC	MODEL XB2411VY
Cabinet Front	ES98X126	ES98X162	ES98X159	ES98X163	ES98X160
Overlay-Secondary Controls	ES99X301	ES99X302	ES99X302	ES99X302	ES99X302
Overlay-UHF/VHF and Speaker	ES4X61	ES4X62	ES4X62	ES4X62	ES4X62
Knob-Volume, Brightness, Contrast	ES54X153	ES54X155	ES54X155	ES54X155	ES54X155
Knob-VHF Selector	ES43X258	ES43X352	ES43X352	ES43X352	ES43X352
Knob-VHF Fine Tuning	ES43X341	ES43X341	ES43X341	ES43X341	ES43X341
Knob-UHF Selector	ES43X338	ES43X338	ES43X338	ES43X338	ES43X338
Knob-UHF Fine Tuning	ES43X344	ES43X344	ES43X344	ES43X344	ES43X344
Knob-UHF Indicator	ES43X339	ES43X339	ES43X339	ES43X339	ES43X339
	ES43X337	ES43X337	ES43X337	ES43X337	ES43X337
Cabinet Back	MODEL XB2440VY	MODEL XB2441BK	MODEL XB2461SL	MODEL XB2513MO	MODEL XB2518WD
Cabinet Front	ES98X160	ES98X164	ES98X161	ES98X126	ES98X126
Overlay-Secondary Controls	ES99X303	ES99X304	ES99X305	ES99X306	ES99X307
Overlay-UHF/VHF and Speaker	ES4X62	ES4X62	ES4X62	ES4X62	ES4X62
Knob-Volume, Brightness, Contrast	ES54X142	ES54X156	ES54X156	ES54X157	ES54X134
Knob-VHF Selector	ES43X352	ES43X352	ES43X352	ES43X352	ES43X258
Knob-VHF Fine Tuning	ES43X341	ES43X341	ES43X341	ES43X341	ES43X341
Knob-UHF Selector	ES43X338	ES43X338	ES43X338	ES43X338	ES43X338
Knob-UHF Fine Tuning	ES43X344	ES43X344	ES43X344	ES43X344	ES43X344
Knob-UHF Indicator	ES43X339	ES43X339	ES43X339	ES43X339	ES43X339
	ES43X337	ES43X337	ES43X337	ES43X337	ES43X337
Cabinet Back	MODEL XB2519WD	MODEL XB3161BK	MODEL XB3163VY	MODEL XB3343WD	MODEL XB3344CO
Cabinet Front	ES98X126	ES98X166	ES98X156	ES98X143	ES98X166
Overlay-Secondary Controls	ES99X308	ES99X309	ES99X310	ES99X311	ES99X312
Overlay-UHF/VHF and Speaker	ES4X61	ES54X158	ES54X159		
Knob-Volume, Brightness, Contrast	ES54X157	ES43X347	ES43X347	ES54X172	ES54X171
Knob-VHF Selector	ES43X258	ES43X341	ES43X341	ES43X325	ES43X325
Knob-VHF Fine Tuning	ES43X338	ES43X338	ES43X338	ES43X351	ES43X351
Knob-UHF Selector	ES43X344	ES43X344	ES43X344	ES43X348	ES43X348
Knob-UHF Fine Tuning	ES43X339	ES43X339	ES43X339	ES43X344	ES43X344
Knob-UHF Indicator	ES43X337	ES43X337	ES43X337	ES43X339	ES43X339
Escutcheon-UHF/VHF and Speaker Handle				ES89X85	ES78X30

PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

Replacement parts shown may be superseded by the availability of newly introduced replacements. Have your local distributor check Sams COUNTER FACTS® for the most up-to-date replacement.

WIRING DATA

High Voltage Lead	Use BELDEN No. 8869 (17 KV)
Shielded Hook-up Wire	Use BELDEN No. 8401 or 8421 (Single-Conductor)
	8208 (Two-Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8528 (Solid) Available in 13 Colors
	8522 (Stranded) Available in 13 Colors
300-Ohm Tuner Input Lead	Use BELDEN No. 8225
300-Ohm 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

PICTURE TUBE

ITEM No.	MFGR. PART No.	REPLACEMENT DATA		NOTES
		GENERAL ELECTRIC PART No.	SYLVANIA PART No.	
# V1	15VAJP4A	15VAJP4		Used in Models XB3161BK(A01), XB3163VY(A01), XB3343WD(A01), XB3344CO(A01), Used in Models XB2410SD(B01), XB2411SY(B01), XB2411TC(B01), XB2411VY(B01), XB2440VY(B01), XB2441BK(B01), XB2461SL(B01), XB2507TC(A03), XB2513MO(B01), XB2518WD(B01), XB2519WD(B01). # For SAFETY use only equivalent replacement part.
#	12VBJP4	12VBJP4		

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFGR. PART No.	REPLACEMENT DATA											
			GENERAL ELECTRIC PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.		
IC101		EP84X10	GEIC-97	PTC746	HEPC6076P	REN 749	SK3168	TVCM-42	ECG749	TA7074P	WEP2027	ZEN-605		
IC301		EP84X2	GEIC-148	PTC726	HEPC6083P	REN 712	SK3072	TVCM-11	ECG712		WEP507	121-722(6)	ZEN-104	
Q101		EP15X54	GE-210*		HEPS0040	REN 161	SK3122	RT-112	ECG233		WEP736			
Q102		EP15X9	GE-20	PTC123	HEPS0015	REN 123A	SK3444	RT-172	ECG123A		WEP702			
Q103		EP15X61	GE-27		HEPS3021	REN 191	SK3232	RT-159A	ECG191		WEP62	121-879		
Q201		ES15X90	GE-82	PTC103	HEPS0019	REN 159	SK3114*	RT-126A	ECG159		WEP780	800-256	ZEN-104*	
Q202		ES15X125	GE-27		HEPS3060	REN 291	SK3104	RT-135	ECG291		WEP780	800-256		
Q203		ES15X125	GE-27		HEPS3060	REN 291	SK3104	RT-135	ECG291		WEP780	800-256		
Q204		EP15X5	GE-243	PTC144	HEPS5014	REN 128	SK3024	RT-114	ECG128		WEP59	121-879		
Q205		ES15X128	GE-82	PTC103	HEPS0029	REN 159	SK3025	RT-115	ECG159		WEP736		ZEN-104*	
Q206		EP15X2	GE-20	PTC136	HEPS0033	REN 123A	SK3444	RT-172	ECG123A		WEP956			
Q208		EP15X6	GE-61*	PTC136	HEPS0015	REN 123A*	SK3132	RT-172	ECG229*		WEP736*			
Q209		EP15X1	GE-20*	PTC101*	HEPS0020*	REN 123A*	SK3444*	RT-172	ECG123A*		WEP736*			
Q210		ES15X90	GE-82	PTC103	HEPS0019	REN 159	SK3114*	RT-126A	ECG159		WEP62	121-879	ZEN-104	
Q213		ES15X90	GE-82	PTC103	HEPS0019	REN 159	SK3114*	RT-126A	ECG159		WEP62	121-879		
Q251		EP15X1	GE-20*	PTC101*	HEPS0020*	REN 123A*	SK3444*	RT-172	ECG123A*		WEP736*	ZEN-104		
Q252		EP15X19	GE-20	PTC123	HEPS0015	REN 123A	SK3444	RT-172	ECG123A		WEP736	ZEN-104		
Q253		ES15X126	GE-36	PTC129A	HEPS7006	REN 163	SK3439	RT-139	ECG163A		WEP740		ZEN-430	
Q301		EP15X16	GE-12	PTC104	HEPS5011	REN 124	SK3021	RT-128	ECG124		WEP240			
Q501		EP15X58(1)												
Q502		EP15X58(1)												
Y101		EP16X3	1N60	PTC206	HEPR9135	REN 109	SK3088	RT-263	ECG109	1N60	WEP134	ZEN-430	ZEN-212-76-02	
Y102		EP57X4	GE-504A	PTC202	HEPR0054	REN 116	SK3313	RT-215	ECG116	1N4007	WEP158	212-76-02		
Y103		EP57X4	GE-504A	PTC202	HEPR0054	REN 116	SK3313	RT-215	ECG116	1N4007	WEP158	212-76-02		
Y104		ES16X27	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062			
Y201		ES16X27	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062		ZEN-212-76-02	
Y203		ES16X27	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062			
Y204		EP57X4	GE-504A	PTC202	HEPR0054	REN 116	SK3313	RT-215	ECG116	1N4007	WEP158	212-76-02		
Y207		ES16X27	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062			
Y251		ES16X27	GE-300(7)	PTC214M(6)	HEPR0602(7)	REN 177(7)	SK3100(7)	RT-218(7)	ECG177(7)		WEP1062(7)		ZEN-103-287	
Y252		ES16X27												
Y253		ES16X41	GEZD-20	ZB208		REN 5079	SK3335	RT-247	ECG5079A	1N4747A	WEP1163			
Y254		ES16X27	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062			
Y255		EP16X10	GE-511	PTC216	HEPR3012	REN 506	SK3125	RT-203	ECG506		WEP172	103-287	ZEN-212-76-02	
Y256		EP16X11	GE-511	PTC216	HEPR3012	REN 506	SK3125	RT-203	ECG506		WEP172	103-287		
Y259		ES57X23												
Y260		EP57X5	GE-504A	PTC201	HEPR0053	REN 116	SK3312	RT-214	ECG116	1N4004	WEP157	212-76-02		
Y401		EP57X4	GE-504A	PTC201	HEPR0053	REN 116	SK3312	RT-214	ECG116	1N4004	WEP157	212-76-02	ZEN-212-76-02	
Y501		EU16X11(1)	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062			
Y502		EU16X11(1)	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062			
Y503		EU16X11(1)	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062			
Y504		EU16X11(1)	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062		ZEN-212-76-02	
Y505		EU16X11(1)	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062			
Y506		EU16X11(1)	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177		WEP1062			

* Lead configuration may vary from original. (6) Matched pair. # For SAFETY use only equivalent replacement part.
(1) Used in AC DC Models (7) Two required - select matched pair.

ELECT

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

Replacement parts shown may be superseded by the availability of newly introduced replacements. Have your local distributor check Sams COUNTER FACTS® for the most up-to-date replacement.

ELECTROLYTIC CAPACITORS (cont)

ITEM No.	RATING	REPLACEMENT DATA				
		MFG. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C270	470 50V	EP31X59	MBR500-50*	VT1470N50	QV1-159	EV-1550
C301	10 50V	EP31X35	PC10-50	VT110D63	QV1-45	EV-1622
C302	10 50V	EP31X35	PC10-50	VT110D63	QV1-45	EV-1622
C403A	300 175V	ES31X50		FP216.9		TVLU-2630
B	300 150V					

For SAFETY use only equivalent replacement part.
* Axial replacement for radial device.
(1) Used in 12" models.

CAPACITORS

ITEM No.	RATING	MFG. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C015	470 125VAC		DD30-471	HV3-470	3HV347		30GA-T47
C016	.05 50V		UK50-503		MAG5015		
C100	18 NPO 50V 5%				CN0418		10TCC-Q18
C101	22 NPO 50V 5%		DTZ-22	NPO22	CN0422		10TCC-Q22
C102	75 NPO 500V 5%		DTZ-75	NPO75	CN0475		10TCC-Q75
C103	68 NPO 500V 5%		DTZ-68	NPO68	CN0468		10TCC-Q68
C104	15 N750 50V 5%		DTN-15	N15	CN7415		10TCU-Q15
C105	27 NPO 50V 5%				CN0427		10TCC-Q27
C106	16 N750 50V 5%		DTN-15	N15	CN7415		10TCU-Q15
C107	.05 50V		UK50-503		MAG5015		
C108	.05 50V		UK50-503		MAG5015		
C112	.01 50V		UK50-103		MAG5011		
C113	.05 50V		UK50-503		MAG5015		
C114	27 NPO 50V 5%				CN0427		10TCC-Q27
C115	27 NPO 50V 5%				CN0427		10TCC-Q27
C116	.002 50V		DD-202	GP2000	GP220	QC2-93	5GA-D20
C117	82 N750 500V 5%				CN7482		10TCU-Q82
C118	15 N750 50V 5%		DTN-15	N15	CN7415		10TCU-Q15
C119	.001 50V		DD-1026	GP1000	GP210	QC2-81	5GA-D10
C120	10 50V		DTZ-10	NPO10	CN0410		10TCC-Q10
C121	10 50V		DTZ-10	NPO10	CN0410		10TCC-Q10
C122	15 N750 50V 5%		DTN-15	N15	CN7415		10TCU-Q15
C123	.001 50V		DD-1026	GP1000	GP210	QC2-81	5GA-D10
C124	.01 50V		UK50-103		MAG5011		
C125	.0018 500V 10%			PM6D18	MP6218		6PS-D18
C126	470 500V		DD-471	GP470	GP347		10TS-T47
C127	.0018 500V 10%		DD-182	GP1800	GP218		10TS-D18
C131	.0022 500V 10%				GP222		10TS-D22
C133	470		DD-471	GP470	GP347		10TS-T47
C135	.001 500V		DD-1026	GP1000	GP210	QC2-81	5GA-D10
C136	820 500V 10%		DD-821	GP820	GP382		10TS-T82
C138	.047 200V			DPMS4S47	EW4147		4PB-S47
C140	820 500V 10%		DD-821	GP820	GP382		10TS-T82
C200	.001 50V		DD-1026	GP1000	GP210	QC2-81	5GA-D10
C201	.01 50V		UK50-103		MAG5011		
C202	.22 100V 10%			DPMS2P22	EW1A022	QF1-253	1PB-P22
C203	.05 50V		UK50-503		MAG5015		
C204	.01 50V		UK50-103		MAG5011		
C205	.1 50V 10%			WMF05P1	EWFO5010		431P1049R5
C206	.27 100V 10%			WMF1P27	EWFI027		1PB-P27
C208	.001 50V		DD-1026	GP1000	GP210	QC2-81	5GA-D10
C214	820 50V		DD-821	GP820	GP382		10TS-T82
C215	820 50V		DD-821	GP820	GP382		10TS-T82
C216	820 50V		DD-821	GP820	GP382		10TS-T82
C251	100 50V 5%		DTZ-100	NPO100	CN0310		10TCC-T10
C252	.1 50V 10%			WMF05P1	EWFO5010		431P1049R5
C253	47 5%		DTZ-47	NP047	CN0447		10TCC-Q47
C254	.0082 500V 10%			DPMS6D82	PVC62B2		6PS-D82
C255	.0022 500V 10%				GP222		10TS-D22
C256	.0033 50V 10%			WMF1D33	EWFI0233	QF1-43	1PB-D33
C257	.0033 50V 10%			WMF1D33	EWFI0233	QF1-43	1PB-D33
C259	.02 5%	ES25X27			SXM120		
C260	.1 200V			DPMS2P1	EW2010		2PB-P10
C261	820 500V 10%		DD-821	GP820	GP382		10TS-T82
C263	.003 1.2KV 5%	ES26X3					
	.0016 1.2KV 5%	ES25X34(1)					
C265	.18 200V 10%	(1)		WMC2P18	H192P18492		192P18492
	.12 200V 10%			WMC2P12	H192P12492		192P12492
C266	16 NPO 50V 5%		DTZ-15	NP015	CN0415		10TCC-Q15
C268	820 500V 10%		DD-821	GP820	GP382		10TS-T82
C273	820 500V 10%		DD-821	GP820	GP382		10TS-T82
C275	30 NPO 5%	(1)	DTZ-33	NP033	CN0433		10TCC-Q33
C300	.05 50V		UK50-503		MAG5015		
C303	.02 50V 10%		UK50-223		MAG5012		
C304	.01 50V		UK50-103		MAG5011		
C305	15 NPO 50V 10%		DTZ-15	NP015	CN0415	QW1-34	10TCC-Q15
C306	200 50V 5%			CD15FD201J03	SX320		MMA-201
C308	.05 50V		UK50-503		MAG5015		5GA-S10
C309	.01 450V		DD-1032	GP10000	GP110		10TCC-Q47
C310	47 500V 10%		DTZ-47	NP047	CN0447	QW1-35	MMA-221
C313	220 500V 10%			CD15FD221JU3	SX322		10TCC-Q47
C314	47 50V 10%		DTZ-47	NP047	CN0447		30GA-D10
C402	.001 1.4KV		DD30-102	HV3-1000	2HV210		6PS-P10
C503	.1 500V	(2)		DPMS6P1	EW6010		
C504	.001 500V	(2)					
C505	.001 500V	(2)		WMF05P1	EWFO5010		431P1049R5
C506	.1 50V 10%	(2)					

For SAFETY use only equivalent replacement part.
(1) Used in 12" models.
(2) Used in AC/DC models.

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

Replacement parts shown may be superseded by the availability of newly introduced replacements. Have your local distributor check Sams COUNTER FACTS® for the most up-to-date replacement.

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA			
			MFG. PART No.	CENTRALAB PART No.	MALLORY PART No.	TRW PART No.
R109	RF AGC	2500	EP49X191	F1-2500,SNK104	RU252L,SL37,SN2000	BU11,CF86,SS6A
R121	Contrast	1000 "C"	73B140362-162(5)			
R129	Brightness	200K "B"	ES49X105			
R304	Volume	50K "A"	73C1800025-23(5)(7)			
	Contrast	1000	(19)			
	Brightness	200K	ES49X107	F5-1000,SN200	RU13R,SL37,SN1250	BU11,CF37,SS6A
	Volume	50K	73B140362-205(5)(18)	F1-200K,SN200	or [UA13R,SN1250]	BU11,CF14,SS6A
R211	Vert Hold	800K "A"	ES49X95		RU25L,SL37,SN1250	
R216	Vert Size	400K "B"	73B140362-215(5)(18)	F2-50K,SN200	or [UA25L,SN1250]	BU11,CF63,SS6A
			ES49X97		RU54A,SL37,SN1250	
			73B140362-150(5)(18)		or [UA54A,SN1250]	
			ES49X106			
			73C180008-34(5)(7)(20)			

(5) Number on unit.
(7) To establish section identification of side-by-side controls, view controls with shaft ends facing you, terminals down. On 3-section controls, left-hand section is "A", middle section is "B", right-hand section is "C". On 2-section controls, left-hand section is "A", right-hand section is "B".
(18) Used in Models XB3343WD and XB3344CD.
(19) Includes R121, R129 and R304.
(20) Includes R211 and R216.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFG. PART No.			WORKMAN PART No.	MFG. PART No.
# R261	10K 5% 2W FilM		EP14X111	# R269	10 5% 2W FilM		EP14X48
R265	1000 5% 1/4W FilM	CD-1000*	ES14X71	R401	10 5% 5W WW	5W-SQ-10	ES14X76
# R266	2000 5% 2W FilM		ES14X47	# R402	120 10% 10W WW		ES14X75(1)
	2000 10% 2W FilM				160 10% 10W WW		ES14X74(2)

For SAFETY use only equivalent replacement part.
* Specify carbon film.
(1) Used in 15" models.
(2) Used in 12" models.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
# L010	Peaking (150uH)	EP36X17		72F154AP	
L101	RF Choke	ES36X126			
L102	41.25MHz Trap	ES36X83			
L103	47.25MHz Trap	EP36X13			
L104	Video Input IF	ES36X125			
L105	Video IF	ES36X124			
L106	Peaking (100uH)	ES36X127		73F104AF	
L107	RF Choke	ES36X61		74F125AP	
L108	RF Choke	ES36X84		6176	
L109	4.5MHz Trap	ES36X123			
L111	Peaking (390uH)	EP36X49		73F394AF	
L113	Peaking (270uH)	ES36X118			
L252	RF Choke (5.6uH)	EP36X140			
L301	Quadrature	EP36X83			
# L402	Line Choke (800uH)	ES36X132			
L403	Line Choke (800uH)	ES36X132			
# L501	RF Choke (5.6uH)	ES36X133(1)			
L502	Peaking (400uH)	EP36X158(1)			
L503	Peaking (390uH)	EP36X49(1)		73F394AF	
T101	Video Output	ES56X6			
T300	Sound Input IF	ES36X129			

For SAFETY use only equivalent replacement part.
(1) Used in Models XB2441BK, XB2461SL.

COILS & TRANSFORMERS (Sweep Circuits)

ITEM No.	FUNCTION	REPLACEMENT DATA				
		MFG. PART No.	OTHER IDENTIFICATION	MILLER PART No.	THORDARSON PART No.	TRIAD PART No.
L251	Horiz Osc (Hold)	ES36X88		H-1034		
L254	Horiz Osc Shaft	ES69X11				
	Yoke Horiz 5.4mH	ES76X17			Y254(3)	
	90° Vert 13mH					
T251	Yoke Horiz Driver	ES76X16(1)				
T252	Horiz Output	ES64X12	73B140584-1			
	Horiz Output Core Half	ES77X23				
	W/Air Gap	ES12X5				
	Horiz Output U-Bolt W/Nuts	ES2X75				
	Horiz Output	ES77X25(2)				

For SAFETY use only equivalent replacement part.
(1) Used in 12" models.
(2) Used with 12VBJP4 (11 Volt Fil.) CRT.
(3) See Component Connection Data.

SWEEP COMPONENT CONNECTION DATA

ORIGINAL	YOKE	YOKE PLUG
REPLACEMENT	Original Connections	
		TO YOKE TERMINALS
THORDARSON	EXACT REPLACEMENT	
TRIAD		

GENERAL ELECTRIC
CHASSIS XB-A, XB-B

FOLDER 1