

CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Connect a clip lead from point (pin 2, grid of V3B, Sync Separator) to ground. Connect a jumper across Horizontal Stabilizer Coil, L14. Set Horizontal Hold Control, R5, to center of its range. Adjust Horizontal Frequency Control, R8, for MINIMUM sideways drift of picture.

Remove jumper from Horizontal Stabilizer Coil, L14. Adjust Horizontal Stabilizer Coil, L14, for MINIMUM sideways drift of picture. Remove clip lead from point .

DISASSEMBLY INSTRUCTIONS

- CHASSIS REMOVAL**

 1. Remove rear cover and knobs from front of cabinet.
 2. Disconnect yoke plug, high voltage anode lead, and speaker leads; also remove ground wire from tuner and picture tube.
 3. Remove 2 nuts on front of chassis and 2 screws on back of chassis.
4. Remove 9 screws holding tuner mounting plate and controls. Remove chassis from cabinet.

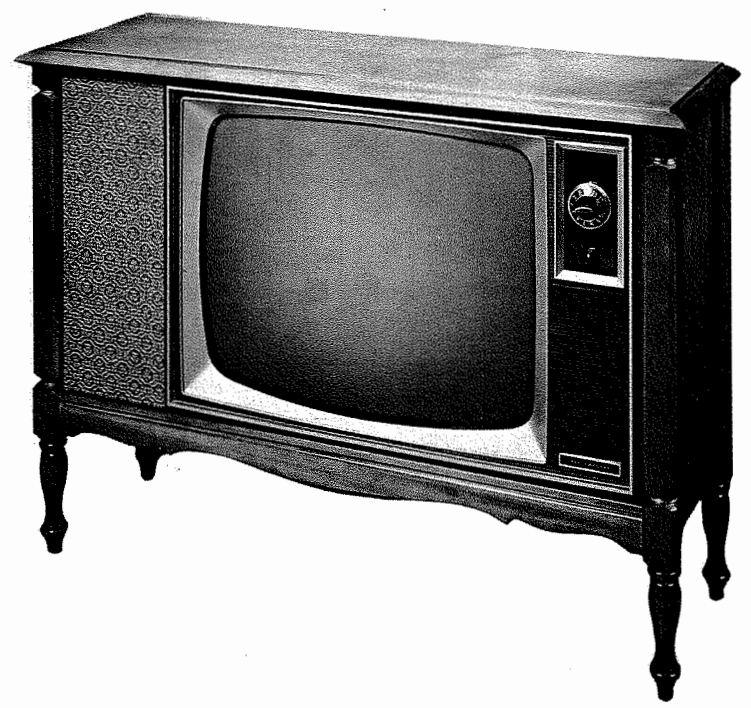
PICTURE TUBE REMOVAL

Follow "Chassis Removal" instructions, loosen picture tube retainer clip, and slip clip out of 4 corner hooks. Remove picture tube.

SET 786 FOLDER 3
SEARS SILVERTONE CHASSIS
456/528/529.61680 thru 61697

PHOTOFACT® Folder with CIRCUITRACE™

SEARS SILVERTONE CHASSIS
456/528/529.61680 thru 61687, 456/528/529.61694 thru 61697



MODEL 6142

CAUTION
ONE SIDE OF AC LINE CONNECTED TO CHASSIS

TRADE NAME	Sears Silvertone	Models	Chassis
	PC-6127, PC-6128, PC-6131, PC-6132, PC-6133, PC-6140, PC-6141, PC-6142, PC-6143, PC-6144, PC-6161 .. 456.61680/81/82/83/84/85/86/87/94/95/96/97	6127, 6128, 6131, 6132, 6133, 6140, 6141, 6142, 6143, 6144, 6161	528/529.61680/81/82/83/84/85/86/87/94/95/96/97
SUPPLIER	For current address, see Master Index.		
TYPE SET	Television Receiver		
TUBES	VHF - Fourteen, UHF - One Transistor		
POWER SUPPLY	110-120 Volts AC, 60 Cycles		
TUNING RANGE	Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)		

SERVICING IN THE FIELD

SAFETY GLASS

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

FUSE OR FUSE DEVICE

A Circuit Breaker is used for low voltage power supply protection and may be reset by depressing the reset button. (See "Tube Placement Chart" for location.)

VHF OSCILLATOR ADJUSTMENT

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

AGC

No provision is made to vary the AGC on this receiver.

HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

Coarse adjustment of the horizontal hold is accomplished by the proper setting of the Horizontal Stabilizer Coil and Horizontal Frequency 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.)

CENTERING

Centering is accomplished by 2 magnetic rings located on yoke rear cover.

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 the particular type of replacement part listed. NA495

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DATE 11 -65 SET 786 FOLDER 3

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456/528/529.61680 thru 61687, 456/528/529.61694 thru 61697

SET 786 FOLDER 3

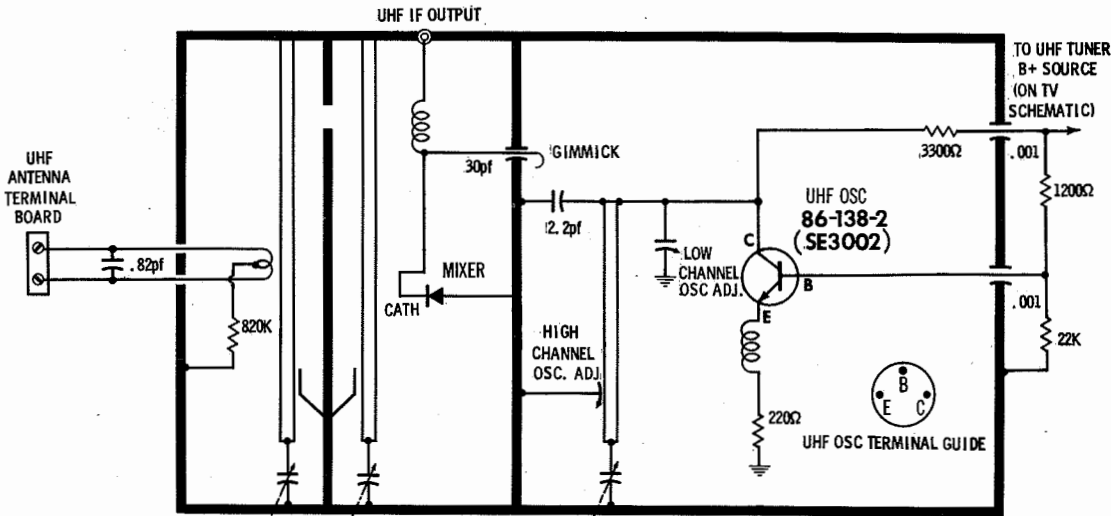
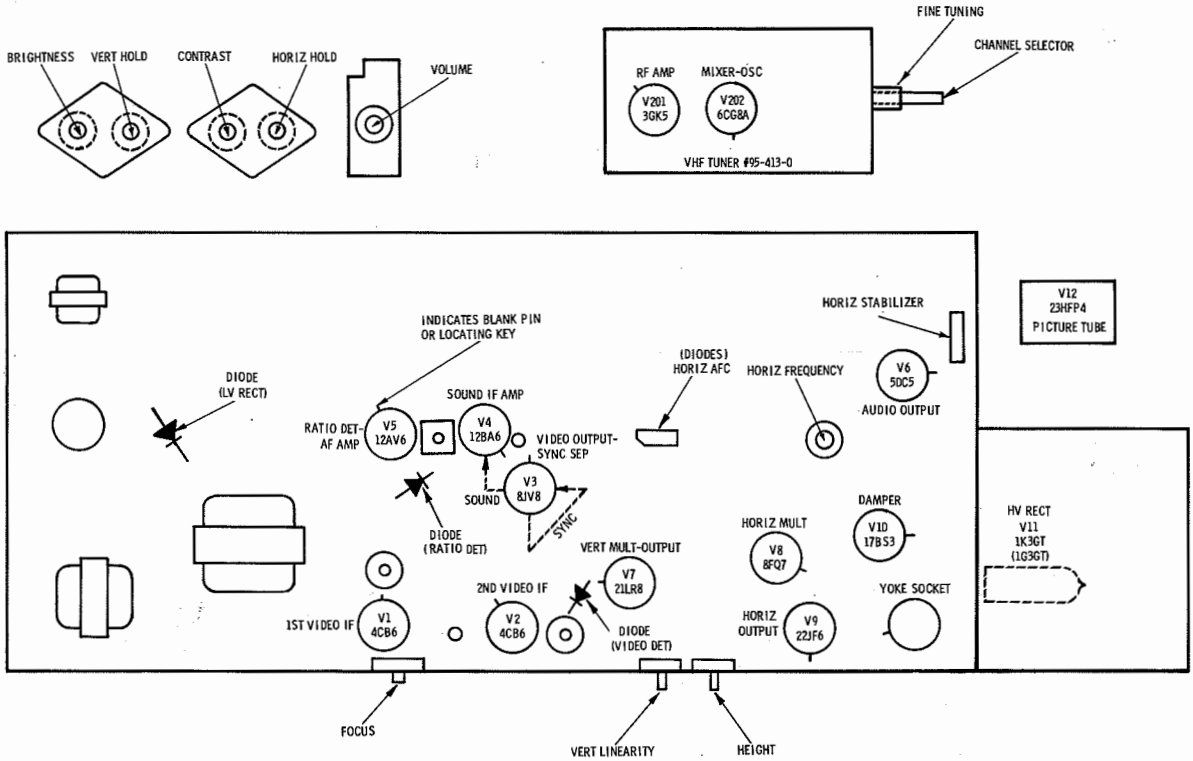
RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	4CB6	1meg	56Ω	8Ω	10Ω	1000Ω †	1000Ω †	0Ω		
V2	4CB6	0Ω	220Ω	10Ω	11Ω	1000Ω †	1000Ω †	0Ω		
V3	8JY8	0Ω	2.2meg	44K	11Ω	15Ω	130Ω	1meg	8200Ω †	4600Ω †
V4	12BA6	2.8Ω	0Ω	524Ω	534Ω	18K †	18K †	150Ω		
V5	12AV6	10meg	0Ω	562Ω	534Ω	430K	430K	2.2meg †		
V6	50C5	150Ω	470K	476Ω	524Ω	NC	17.3Ω †	252Ω †		
V7	21LR8	0Ω	2.2meg	0Ω	15Ω	24Ω	100Ω †	837Ω †	1meg †	1.4meg
V8	8FQ7	47K †	90K	1500Ω	3Ω	6Ω	15K †	1.4meg	1500Ω	NC
V9	22JF6	1500Ω †	NC	0Ω	31Ω	24Ω	1meg	NC	5600Ω †	NC
V10	17BS3	NC	17.3Ω †	NC	36Ω	31Ω	NC	17.3Ω †	NC	1.2meg
V11	1K3	PINS 1 THRU 8 HAVE INFINITE RESISTANCE								TOP CAP 6.4Ω †
V12	23HFP4	8Ω	180K	550K †	700K †	0Ω	NC	1.2meg	6Ω	
V201	3GK5	0Ω	1.1meg	0Ω	1Ω	1800Ω †	0Ω	0Ω		
V202	6CG8A	15K	5000Ω †	0Ω	3Ω	1Ω	1600Ω †	19K †	0Ω	220K
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9

NOTE: FILAMENT RESISTANCES MEASURED WITH V5 REMOVED.
† MEASURED FROM OUTPUT OF X1.

NC NO CONNECTION
‡ MEASURED FROM PIN 9 OF V10.

TUBE PLACEMENT CHART



A PHOTOFACT STANDARD NOTATION SCHEMATIC
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UHF TUNER PART #95-405-0

UHF TUNER 95-405-0

TUBE FAILURE CHECK CHART

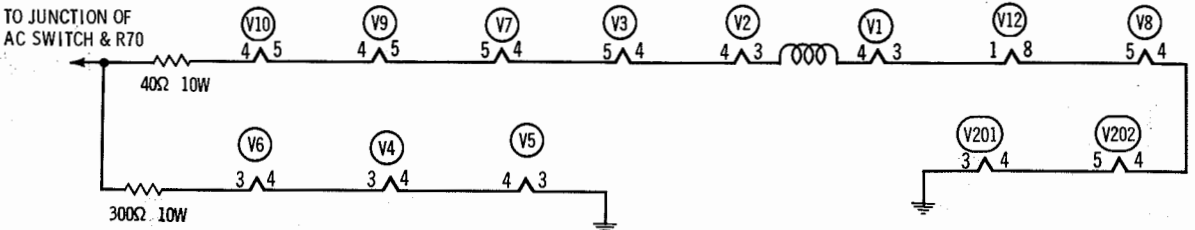
The following chart lists tubes whose failures are most likely to produce indicated symptoms. Refer to tube placement chart for location and type of tube.

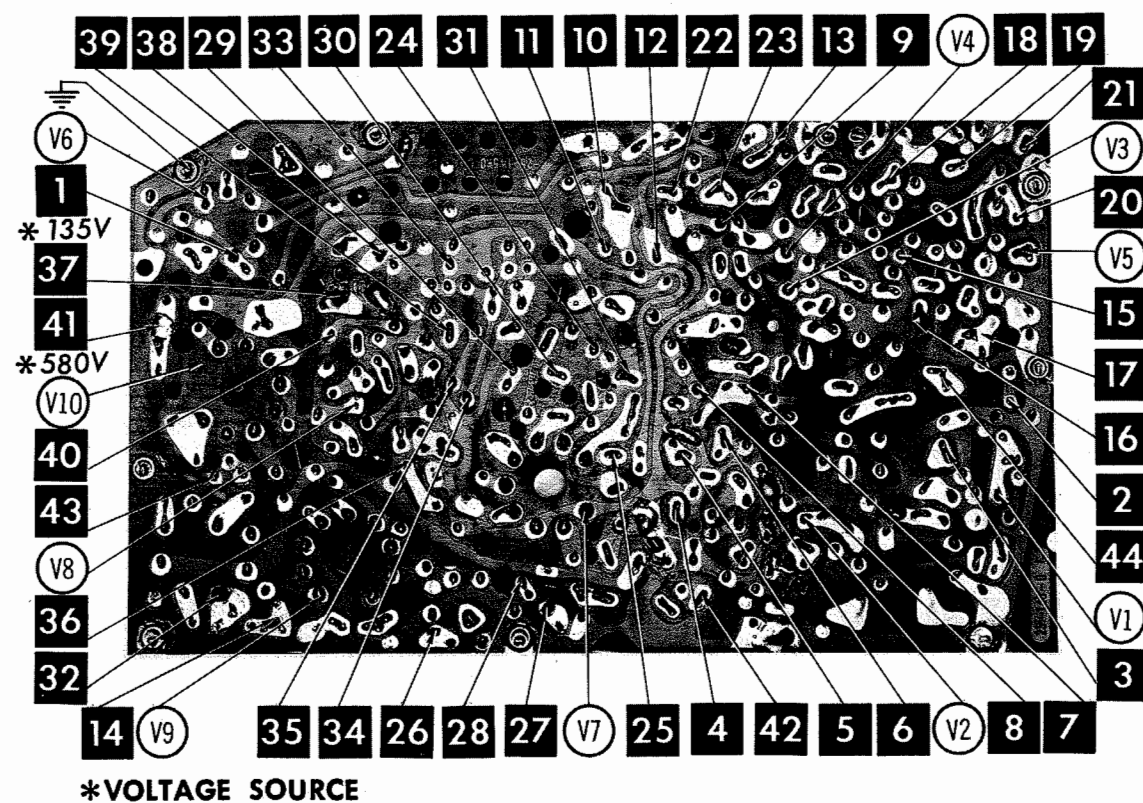
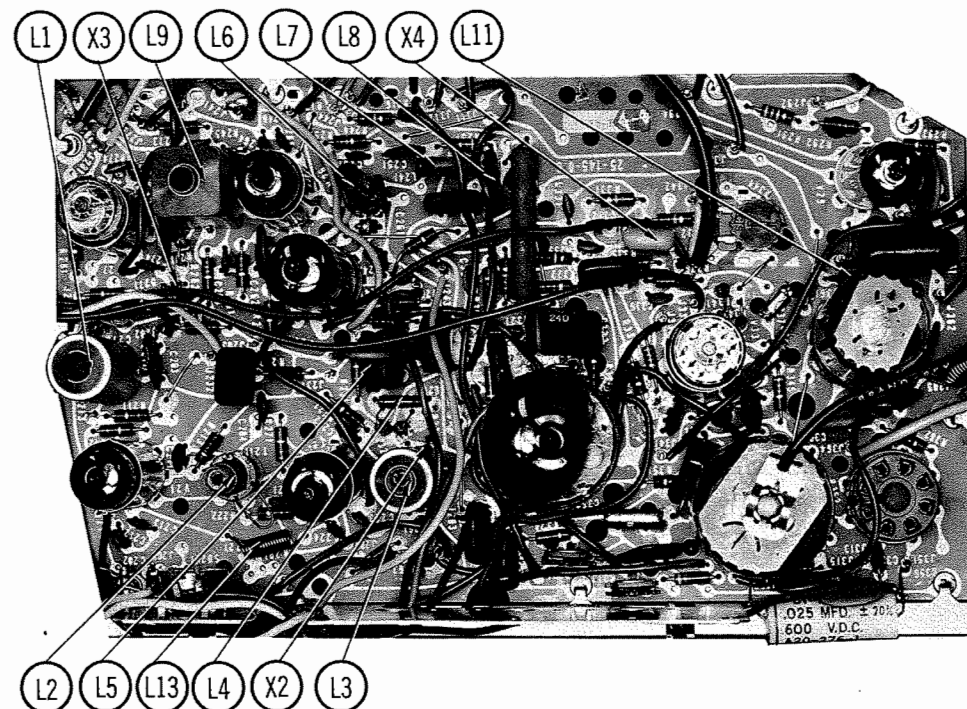
- POWER SUPPLY FAILURE**
No raster, no sound Circuit Breaker M1, Rectifier X1

SWEEP FAILURE
No raster, has sound V8, V9, V10, V11, V12
No vertical deflection V7
Poor vert. linearity or foldover V7
Poor horiz. linearity or foldover V8, V9, V10
Narrow picture V8, V10, V11, X1
Vert. off freq. V7
Horiz. off freq. AFC Diode X4, V8
- LOSS OF PICTURE OR SOUND**
No pic, no sound, has raster V1, V2, Video Det. X2, V3
No pic, no sound, has snow V201, V202, V1
No pic, has sound, has raster V3, V12
Has pic, no sound V4, V5, V6

SYNC FAILURE
No vert. sync V3
No horiz. sync V3
No vert. or horiz. sync V3

This receiver employs tubes used in a series filament network, an open filament in any tube will cause the set to be inoperative. (See circuit below.)



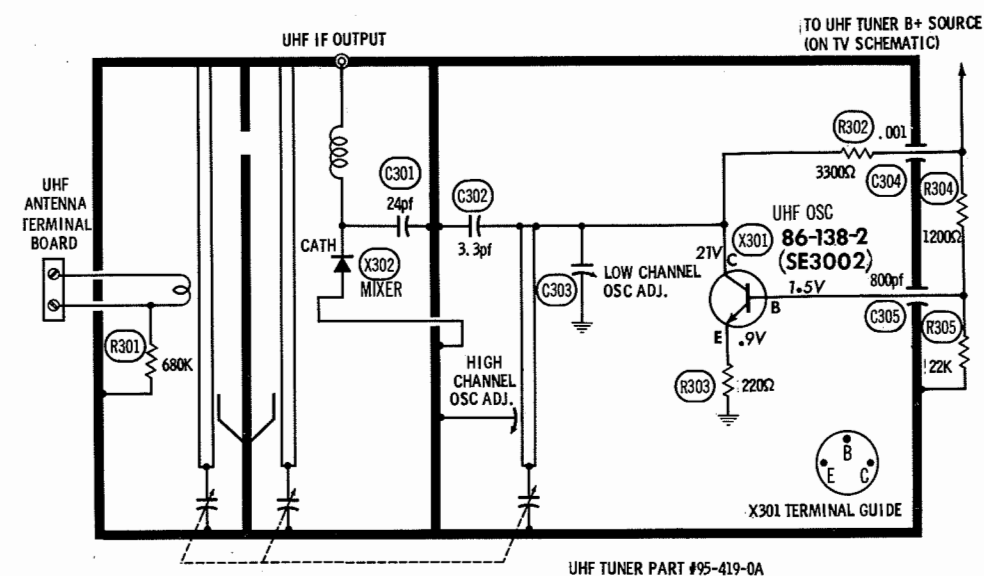


*VOLTAGE SOURCE

A Howard W. Sams CIRCUITRACE® Photo

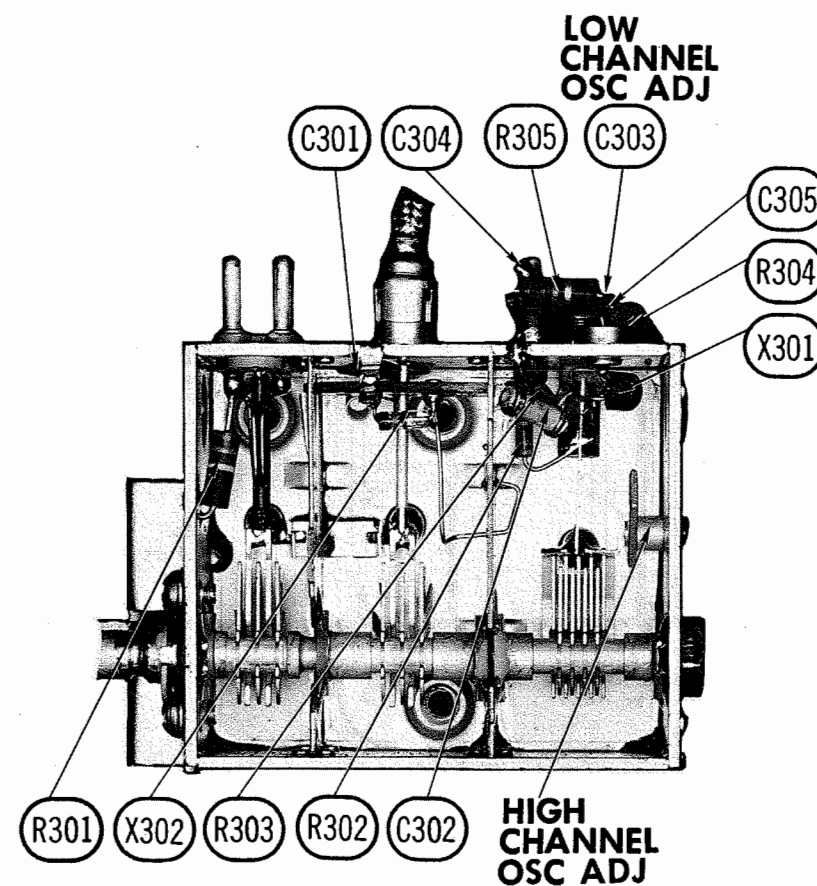
ARROWS INDICATING TUBE LOCATIONS ARE POINTING TO PIN 1 UNLESS OTHERWISE INDICATED

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A PHOTOFAC STANDARD NOTATION SCHEMATIC
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UHF TUNER PART #95-419-0A



UHF TUNER 95-419-0A

SEARS SILVERTONE CHASSIS 456/528/
529.61680 thru 61687, 456/528/529.61694 thru 61697

FOLDER 3

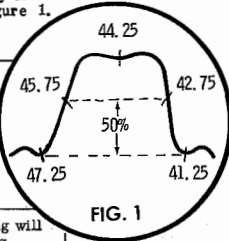
ALIGNMENT INSTRUCTIONS

Use an isolation transformer and maintain voltage at 117 volts. Allow a 20-minute warm-up period for the receiver and test equipment.
Suggested Alignment Tools: A1 thru A9 GENERAL CEMENT #8606, 8869, 9302 ... WALSCO #2511, 2543, 2588
Mixer Plate Coil ... GENERAL CEMENT #8286, 9300, 9302 ... WALSCO #2510, 2511, 2547

VIDEO IF ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use only enough generator output to provide a usable indication. Note: Response may vary slightly from those shown. Connect a variable bias supply to the IF AGC line (point \diamond) and adjust to obtain a response curve which shows no indication of overload. Disable Oscillator section of Mixer-Osc. Set the Channel Selector to any non-interfering channel.

INDICATOR	GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	ADJUST	REMARKS
1. Connect DC probe of a VTVM thru a 47K resistor to point \diamond . Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.		41.25MC	A1	Adjust for MINIMUM.
2. Connect vertical input of a scope to point \diamond . Low side to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	44MC (10MC Sweep)	41.25MC 42.75MC 44.25MC 45.75MC 47.25MC	A2, A3, A4, A5, Mixer Plate Coil	Adjust for maximum gain and symmetry of response with markers as shown in Figure 1.

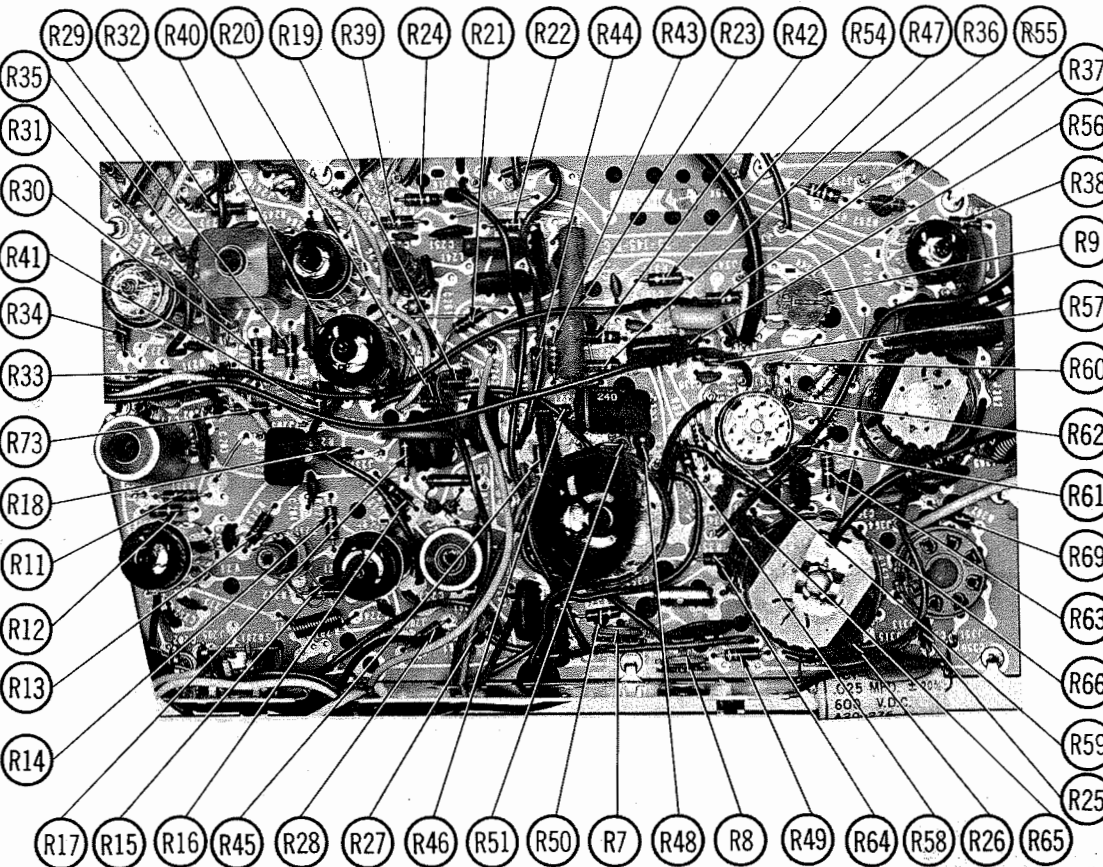
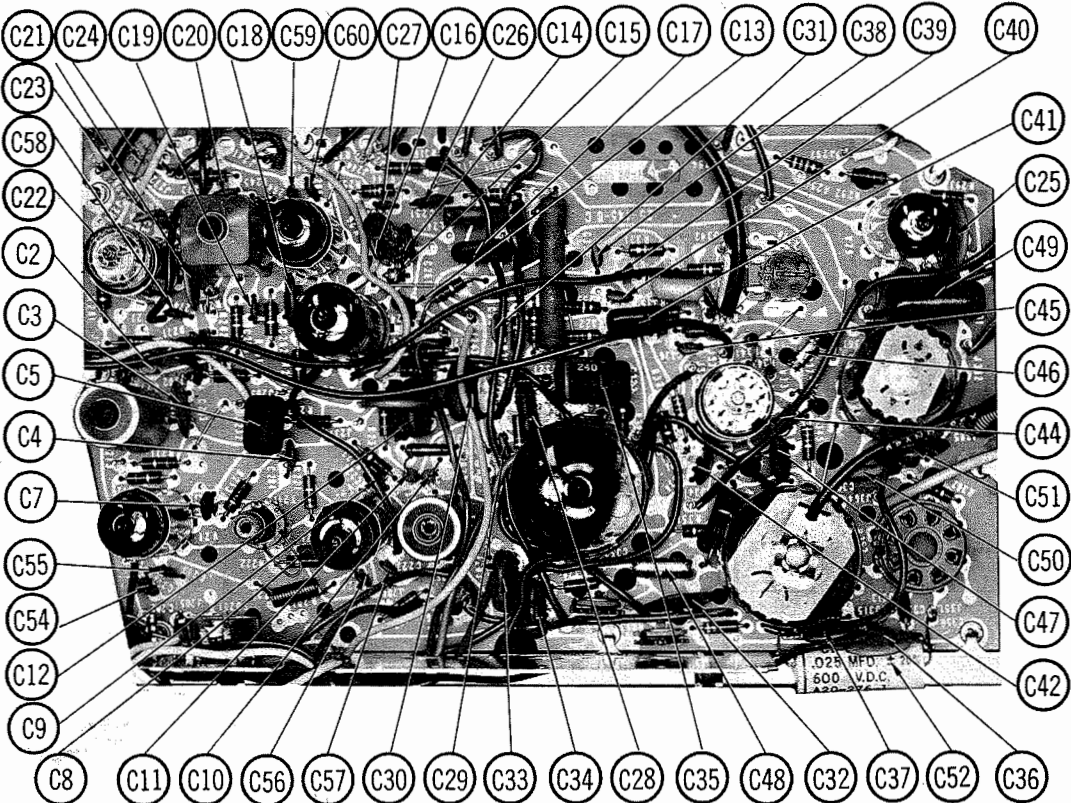


SOUND IF ALIGNMENT

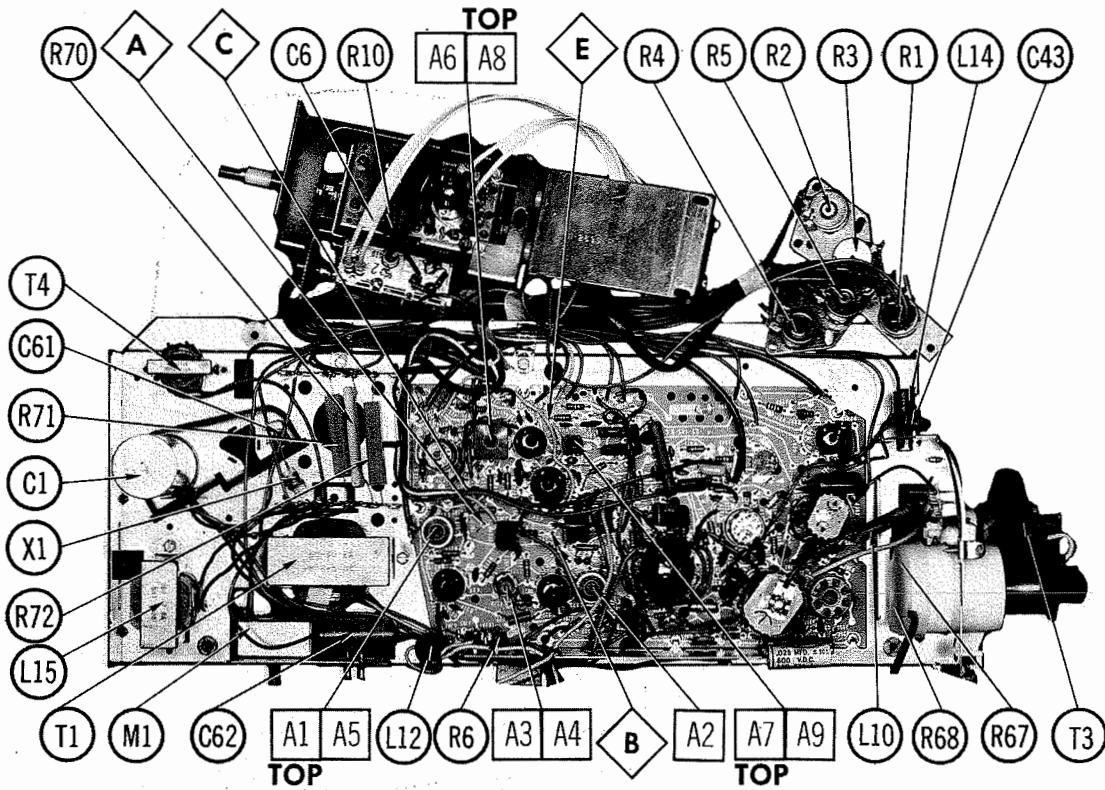
SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
High side to point \diamond , low side to ground.	4.5MC (Unmod.)	Any non-interfering channel	DC Probe to point \diamond , low side to ground.	A8, A7	Adjust for maximum.
"	"	"	DC Probe to point \diamond , low side to point \diamond .	A8	Adjust for zero. A positive or negative reading will be obtained on either side of the correct setting.

4.5 MC TRAP ALIGNMENT

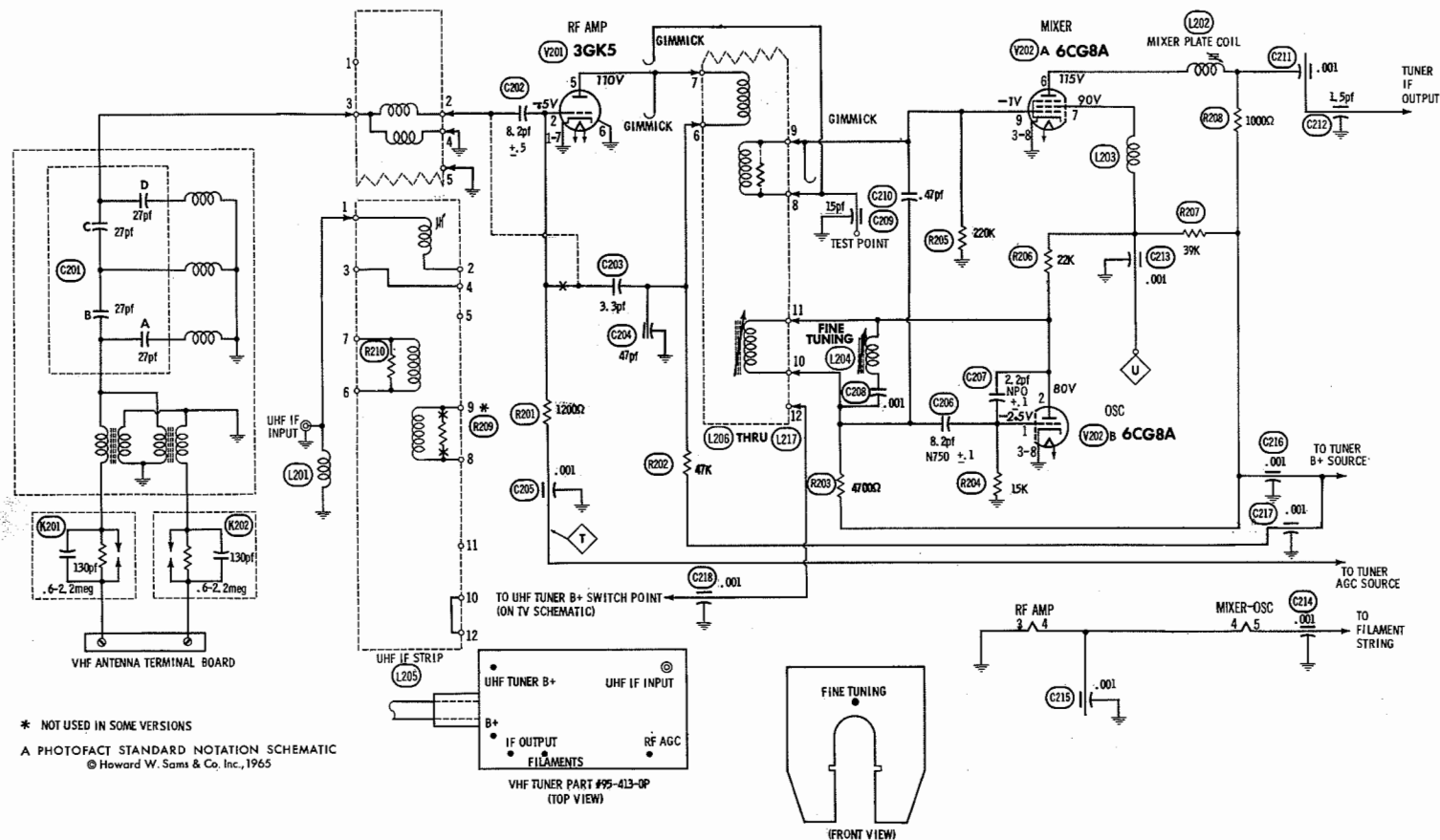
Tune in a strong TV signal and set the Contrast at maximum. Adjust the Fine Tuning until a beat pattern is visible on the screen. Adjust A9 for MINIMUM beat interference.



PRINTED CIRCUIT BOARD



CHASSIS—TOP VIEW



VHF TUNER ALIGNMENT INSTRUCTIONS

OSCILLATOR ADJUSTMENTS

The individual oscillator slugs are accessible one at a time through a hole in the front of the tuner. Set the Fine Tuning to the center of its range and adjust oscillator for best picture and sound on each active channel.

RF AND MIXER ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use 10MC sweep unless otherwise noted. Connect a variable bias to the RF AGC line at point T. Adjust bias to obtain response curve which shows no indication of overloading.

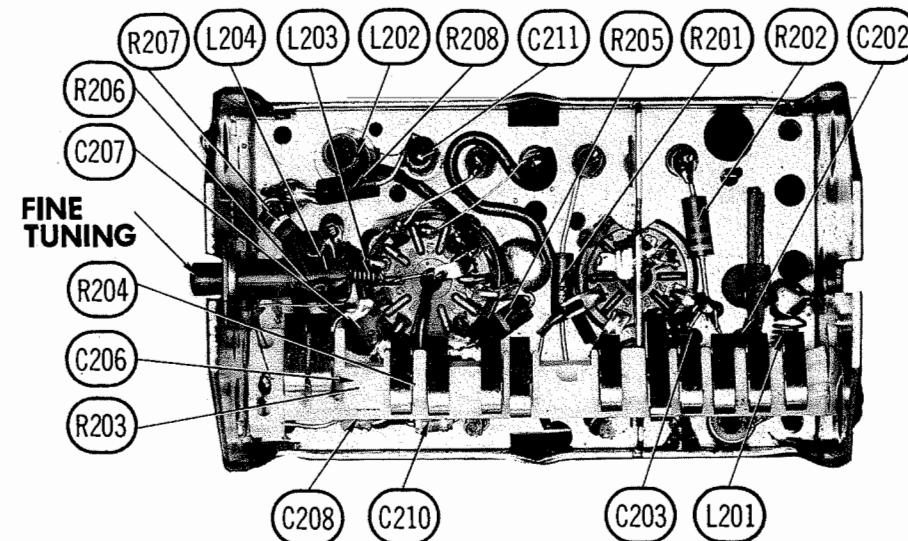
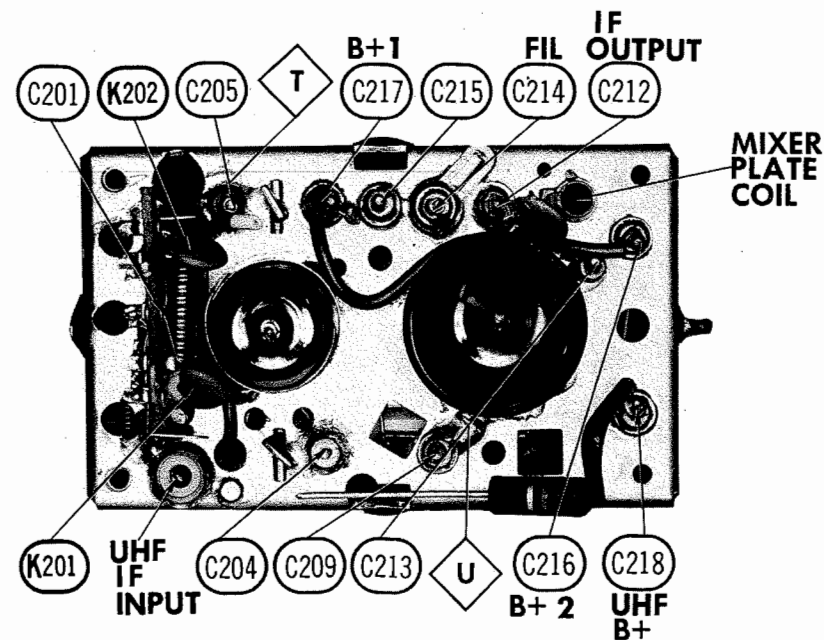
SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. Across antenna terminals with 120Ω in each lead.	213MC	211.25MC 215.75MC	13	Vert. Input to Point T, low side to ground		Alignment of Antenna, RF and Mixer Grid sections can be accomplished by compressing or expanding appropriate turns of wire on individual channel strips.
2. "	See Chart	See Chart	12 thru 2	Vert. Input to Point T, low side to ground.		

CHANNEL & FREQUENCY CHART

SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	
57MC	55.25MC 59.75MC	2	85MC	83.25MC 87.75MC	6	195MC	193.25MC 197.75MC	10	
63MC	61.25MC 65.75MC	3	177MC	175.25MC 179.75MC	7	201MC	199.25MC 203.75MC	11	
69MC	67.25MC 71.75MC	4	183MC	181.25MC 185.75MC	8	207MC	205.25MC 209.75MC	12	
79MC	77.25MC 81.75MC	5	189MC	187.25MC 191.75MC	9	213MC	211.25MC 215.75MC	13	

UHF TUNER ALIGNMENT INSTRUCTIONS

Tune to a UHF station and adjust UHF IF Input Coil for best picture and sound. Tune UHF Channel Selector to the lowest UHF channel (low end of dial) operating in the area. Adjust UHF Low Channel Oscillator Trimmer for best picture and sound. Tune to the highest UHF channel (high end of dial) in the area and adjust UHF High Channel Oscillator Trimmer for best picture and sound. Repeat above steps until no further improvement can be made.



13 POSITION TURRET-TYPE VHF TUNER 95-413-OP

SEARS SILVERTONE CHASSIS 456/528/
529.61680 thru 61687, 456/528/529.61694 thru 61697

FOLDER 3

VHF TUNER PARTS LIST AND DESCRIPTION

TUBES

♦ AMPEREX ♦ GENERAL ELECTRIC ♦ RCA ♦ SYLVANIA ♦						
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	
V201	RF Amp.	3GK5	V202	Mixer - Osc.	6CGRA	

CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CORNELL-DUBILIER PART No.	ELMENC PART No.	MALLORY PART No.	SPRAGUE PART No.	
C201A	27	Choke						
C201B	27	Mixer Plate						
C201C	27	Screen						
C201D	27	UHF Strip						
C202	8.2	UHF Strip						
C203	3.3	Ant., RF						
C204	47	Osc., Mixer						
C205	.001							
C206	8.2 N750 ±.1							
C207	2.2 NPO ±.1							
C208	.001							
C209	15							
C210	.47pf							
C211	1.001							
C212	1.0							
C213	.001							
C214	.001							
C215	.001							
C216	.001							
C217	.001							
C218	.001							

COILS (RF-IF)

ITEM No.	USE	SEARS PART No.	NOTES	ITEM No.	USE	SEARS PART No.	NOTES
L201	Choke	48-10433		L210	Ant., RF, Osc., Mixer	48-10439	Channel 6 Strip
L202	Mixer Plate	48-10431		L211	"	48-10440	"
L203	Screen	48-10432		L212	"	48-10441	"
L204	UHF Strip	48-10434		L213	"	48-10442	"
L205	UHF Strip	48-10435		L214	"	48-10443	"
L206	Ant., RF, Osc., Mixer	48-10436		L215	"	48-10444	"
L207	"	48-10437		L216	"	48-10445	"
L208	"	48-10438		L217	"	48-10446	"
L209	"	48-10439					

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	SEARS PART No.	REPLACEMENT DATA
K301	Antenna Isolation		48-3130	
K302	Antenna Isolation		48-3131	

MISCELLANEOUS

ITEM No.	PART NAME	SEARS PART No.	NOTES
	Bearing Plate	48-3130	
	Cam	48-39134	
	UHF Shaft	39-453-0	Fine Tuning
	Input Shaft	46-39197	Dial Shaft
	Shaft	48-39175	
	Sealor Assembly	48-8497	Turret - Strips not included

(When ordering ports, 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.

(When Ordering Specify Model, Chassis & Color)

WIRING DATA

High Voltage Lead	Use Belden No. 8869 (17KV) or 8888 (25KV)
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 12 Colors 8524 (Stranded) Available in 12 Colors
Power Cord (Interlock Type)	Use Belden No. 8874 (Rubber) or 8895 (Plastic)
300G Tuner Input Lead	Use Belden No. 8225
300G 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 8486 (Round) - 8 Conductor

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