SYLVANIA

SUPPLEMENT NO. 1 TO—

Bulletin	9-2
Chassis	1-108
Models	1-076, 1-128
Date	1-18-50
Page	25

REPAIR PARTS and SERVICE INSTRUCTIONS

PROMPTLY MAKE REVISION AND CORRECT ERRORS AS NOTED BELOW TO BULLETIN 9-2 DATED 10-14-49

Chassis Top Layout (Fig. 5, Page 7):
Correct the identification of the flat type ceramic capacitor C166 adjacent to the brightness and contrast controls to C183.

Chassis Bottom Layout (Fig. 7, Page 10):
The 1/2 watt resistor near the center of the chassis formerly identified as R123 is now R214.

Schematic Diagram (Fig. 14, Page 23):
Correct identification of the 2nd video I.F. cathode resistor R123, 82 ohm, to read R214.

R.F. Tuner Layout (Fig. 11, Page 14):
A revised R.F. tuner layout of parts is reprinted in this supplement to cover the electrical changes as noted on the R.F. tuner schematic diagram. Refer to the layout of parts on Page 14 for those R.F. tuners under service not having these changes.

R.F. Tuner Schematic Diagram (Fig. 12, Page 15):
A revised R.F. tuner schematic diagram is reprinted in this supplement. The electrical changes to this tuner are identified in red. Refer to the schematic on Page 15 if the R.F. tuner under service does not have these changes.

Repair Parts List (Pages 18,19,20,21,22):
Resistor R123, listed as 82 ohm, 1/2 watt, should be corrected to R214. Resistor R116 listed as 10,000 ohm, 1/2 watt should be corrected to read 10 megohm, 1/2 watt part number 189-0010. This is a special part. Add to parts list R212 part number 189-0009, Resistor 3.6 ohm, 1/2 watt.

CHASSIS RELEASES C10, C11, C12, C13, B12 & B13

THE REPAIR PARTS AND SERVICE INSTRUCTIONS THAT FOLLOW REPRESENT THOSE SYLVANIA CHASSIS WITH BASE CHASSIS CODING OF C10, C11, C12, OR C13 AND BRIDGE CHASSIS CODING OF B12 OR B13.

The schematic diagram shown on page 41 figure 25 covers chassis coding C12, C13 and bridge coding B12, B13. Chassis coded C10, C11 differ from the above only in the value of R141, R142 and R148 as follows.

R141 was 1 Megohm
R142 was 10,000 Ohm
R148 was 820,000 Ohm

These chassis vary widely in circuit design from the original chassis covered in Bulletin 9-2 dated 10-14-49.

A system of coding major changes in circuit design has been adopted for Sylvania television chassis. This method of coding has been thoroughly reviewed in Service Notes 10-5, Item 9.

Revised Sylvania Tube Complement
(includes rectifiers and picture tube)

Symbol	Function	Type
	TELEVISION	
(V1)	1st RF Amplifier	6AG5 or 6BC5
(V2)	2nd RF Amplifier	6AG5 or 6BC5
(V3)	Oscillator - Mixer	6J6
(V4)	1st Video IF Amplifier	6BA6
(V5)	2nd Video IF Amplifier	6BA6
(V6)	3rd Video IF Amplifier	6AU6
(V7)	4th Video IF Amplifier	6AG5
(V8)	Video Det., AGC Line Clamper	6AL5
(V9)	Video Amplifier	6AQ5
(V10)	Sound IF Amplifier	6AU6
(V11)	Sound IF Limiter	6AU6
(V12)	Ratio Detector	6AL5
(V13)	1st Audio Amplifier	6AU6
(V14)	Audio Output	6Y6G
(V15)	AGC Amp., Vert. Osc.	12AU7
(V16)	Hor. & Vert. Sync. Sep.	12AX7
(V17)	Hor. & Vert. Sync. Clippers	12AU7
(V18)	Vertical Output	6AQ5
(V19)	Horizontal Discriminator	6AL5
(V20)	Horizontal Control	6AU6
(V21)	Hor. Osc. & Discharge	12AU7
(V22)	Horizontal Output	6BD5GT
(V23)	Damper	6W4GT
(V24)	High Voltage Oscillator	6Y6G
(V25)	High Voltage Rectifier	1B3GT
(V26)	Low Voltage Rectifier (B/)	7X6
(V27)	Low Voltage Rectifier (B/)	5U4G
(V28)	Picture Tube (Model 1-076)	10MP4
(V28)	Picture Tube (Model 1-128)	12VP4
	RADIO TUNER	
(V29)	Oscillator-Mixer	12AT7
(V30)	1st IF Amplifier, AM & FM	6BA6
(V31)	2nd IF Amplifier, AM & FM	6BA6
(V32)	FM Ratio Detector, AM Detector	6T8

Picture Tube Replacement

1. Remove the chassis from the cabinet and place on the bench in an upright position.
2. Remove the H.V. lead and picture tube socket. Loosen the ion trap magnet and slip it to the rear and off the picture tube.
3. Slide chassis forward so that approximately 2" of the front of the chassis extends over the edge of the bench.
4. Using a 3/8" spintite, remove the #10-32 nut and lockwasher from under the chassis that retains the picture tube hold down strap.
5. Carefully pull the threaded end of the strap out of the chassis. Remove strap from bell of picture tube and tube supporting brackets.
6. With the hold down strap completely free of the chassis, raise the two picture tube support brackets so they will clear the picture tube.
7. Loosen the wing head screw at the bottom of the deflection yoke.
8. Some picture tubes are cemented to their front base mountings. Before attempting to remove the tube from the chassis, carefully work a flat bladed knife between the rubber pads and the metal supports on the left and right sides of the chassis to break this cement seal. Under no circumstances insert the blade between the rubber pad and the picture tube. This can cause a tube fracture.
9. Some picture tubes are installed with no cement. For these, or after completing instruction 8, gently lift the front of the picture tube sufficient to clear the front tube stops.
10. Carefully pull out the picture tube through the focus unit and deflection coils.

To replace the picture tube follow the above procedure in reverse order being careful not to force the tube if the neck binds. Some chassis may have a centering which is positioned between the deflection yoke and focus coil. For these make sure the center hole in the ring is concentric with the openings in the yoke and focus coil before attempting to insert the picture tube. Before resting the bell of the picture tube on the rubber pads and against the tube stops, rotate the tube so the anode contact is in line with the high voltage lead. Clean the face of the tube to remove dirt and finger marks before installing the chassis into the cabinet.

Antenna Installation

The 1-108 chassis models have a self contained antenna. The receiver is shipped from the factory with the self contained antenna connected to the two screw antenna terminal board. For many receiver installations, the self contained antenna will provide satisfactory reception.

A variable capacitor, controlled from the front of the receiver over the picture mask adjusts the antenna circuit to resonance. At each individual channel the capacitor knob should be rotated for best picture quality.

If, for satisfactory reception, the installation of an external antenna is deemed necessary, matching 300 ohm twin lead may be connected to the terminal board in place of the self

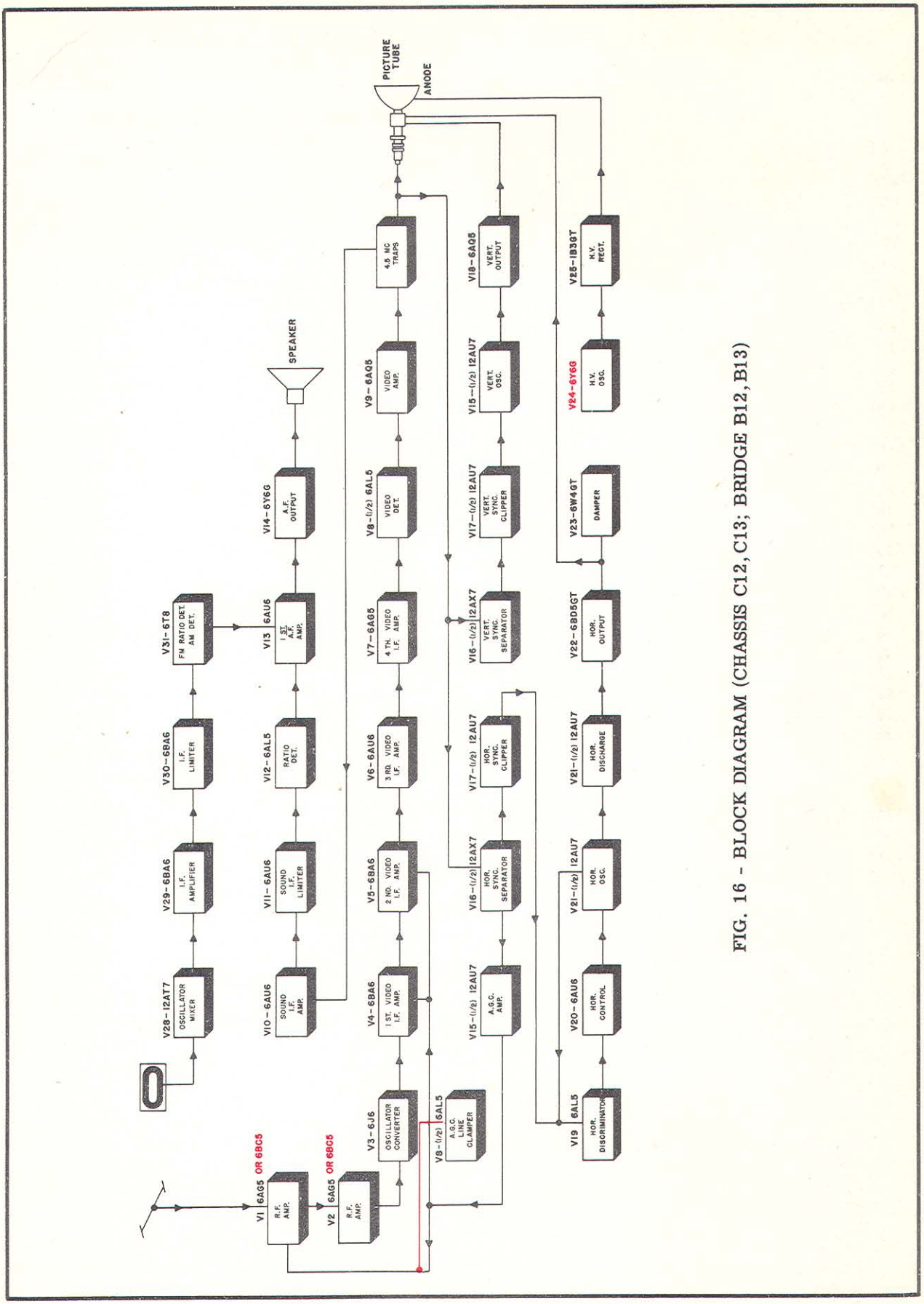

FIG. 16 - BLOCK DIAGRAM (CHASSIS C12, C13; BRIDGE B12, B13)

contained antenna. A 300 line is especially recommended in those areas where the lead-in is in excess of 100 feet.

A 75 ohm shielded coaxial input may be used with the 1-108 chassis if impedance matching coils are wired between the lead-in and the antenna terminals. A coaxial lead-in will be the only solution in some areas where high noise signals prevail.

IF THE CHASSIS HAS A FOUR SCREW TERMINAL BOARD, REFER TO BULLETIN 9-2 DATED 10-14-49 FOR PROPER ANTENNA CONNECTIONS.

Deflection Yoke, Centering Ring, Focalizer, Ion Trap Magnet Adjustments

DEFLECTION YOKE - The neck of the picture tube must seat parallel with the lower chassis. To do this, loosen the two wing screws located on opposite sides of the deflection yoke to raise or lower the yoke. Move the yoke as far forward as possible against the flare of the picture tube by loosening the wing screw on the underside of the yoke. If the picture is not square with the mask, rotate the yoke. Tighten all screws after adjustments.

FOCALIZER, CENTERING RING, ION TRAP MAGNET -
Adjust in the following sequence:

Place the centering ring around the neck of the picture tube from the socket end and position it tight against the rear of the Delfection Yoke. The Focalizer (Focus magnet) is supported from the upper chassis by two threaded studs. Each of these studs have a knurled spacer nut. Position the Focalizer around the neck of the tube tight against the Centering Ring so the Focalizer's center is concentric with the neck of the picture tube and that on the vertical plane the Focalizer is parallel with the Centering Ring and Deflection Yoke. Tighten the hexagon nuts to hold the Focalizer in this position.

Slip the Ion Trap Magnet on the neck of the picture tube with the smaller of the two pole pieces nearest the Focalizer. Rotate the magnet so that the opening is towards the H.V. contact on the picture tube. Tighten the wing nut only sufficiently to hold the Ion Trap Magnet to the tube neck, yet permitting its movements.

Attach the picture tube socket and turn on the receiver. Set the contrast control almost at minimum and the brightness control at maximum. Position the ion trap magnet so that there is approximately 1/8" between the ion trap magnet and the focus magnet. The ion trap magnet should be slowly rotated until a picture (or raster, if the receiver is not yet tuned to a station) is visible on the screen. The brightness should now be reduced and the ion trap magnet carefully twisted and moved a small amount backwards and forwards on the neck of the tube, to obtain maximum brightness. Finally, adjust the brightness control to obtain maximum brightness and then carefully reposition the ion trap magnet; it may be possible to increase the brightness still more by turning the contrast control towards maximum and again adjusting the ion trap magnet. The correct position of the ion trap magnet is where it ensures the greatest possible brightness of the raster or picture before it enlarges and fades out as the setting of the brightness control is increased. Do not leave the brightness control in this position as the condition causes severe overload of the high voltage supply.

The high voltage supply should be operating to give the correct voltage (9.5 KV. with brightness and contrast controls at minimum). If the picture is not centered vertically on the screen, this should be done by moving the focus magnet up or down as required - lock it in position by means of the two hexagon nuts. If the picture is not centered horizontally, adjust the horizontal centering control.

In order to correctly adjust the focus of the receiver it is desirable to make the adjustment when a test pattern is being received, so that the focus may be checked in a horizontal direction, as evidenced by optimum resolution of the closely spaced vertical lines, etc., on the test pattern. Correct focus in the vertical direction is evidenced by the clarity or sharpness of the scanning lines; it will usually be found that a compromise has to be made between optimum horizontal and vertical focus, since optimum focus of the scanning lines will not necessarily ensure optimum focus in the horizontal direction.

A preliminary adjustment of the screws on the focus magnet should now be made to bring the raster or picture in focus. This preliminary adjustment will not, of course, be necessary if the raster or picture is already in focus. (NOTE: Use a non-magnetic screwdriver, or the special tool available to adjust the focus screws).

Each screw should be adjusted about 1/2 turn at a time so that they are kept in step - the

air gaps formed by the screws must be approximately equal.

Center the picture horizontally in the mask with the horizontal centering control. Rotate the Centering Ring to obtain vertical centering. This is possible at two positions of the Centering Ring and if horizontal centering cannot be obtained by means of the horizontal centering control, the Centering Ring should be rotated to the second position for correct vertical centering. It should then be possible to center the picture horizontally by means of the horizontal centering control. With the picture size correctly set, it should be possible to move the picture off-center both to the left and to the right so there is a gap not less than 1/4" between the edge of the picture and the edge of the mask.

Make final touch-up adjustments of the Focalizer and Ion Trap Magnet.

High Voltage Adjustment

The trimmer capacitor C191 in the high voltage supply is adjusted to set the frequency of the high voltage oscillator for correct operation. The chassis must be removed from the cabinet and the adjustments made from the front of the receiver with a screwdriver or alignment tool inserted into the high voltage supply through the hole directly over the high voltage lead. The high voltage supply shield cover must be in position before making adjustments. Normally, realignment should be required only when replacing the 6Y6G oscillator tube or the high voltage coil.

Before making the trimmer adjustment something should be said about the H.V. supply so that a better understanding can be had of the correct adjustment. Since the high voltage is derived from an R.F. Oscillator, it is possible to tune the oscillator to more than one operating voltage point and all of these will have the same output. However, since only one point will give the desired regulation, one should be particularly cautious about this adjustment. Figure 17 shows the correct setting of the oscillator. Notice there are four possible settings of trimmer C191 that will give the required 9500 operating voltage but that only the first point from maximum capacity is correct. With the above in mind proceed to adjust the high voltage trimmer as follows:

A. Connect a voltmeter through a high voltage probe adapter, to the output of the high voltage supply (anode connector on picture tube).
B. Turn the contrast and brightness controls to minumum.
C. Screw the trimmer to maximum capacity (all the way clockwise).
D. Slowly back off on the trimmer (counter clockwise) observing the reading of the voltmeter. A peak voltage of approximately 11 KV. (line voltage 117 V.) should be reached.
E. Again turn the trimmer towards maximum capacity (clockwise) until the voltage reads 9.5 KV. The trimmer is now correctly adjusted.
Note: The high voltage supply can still provide an output, although much less than normal, when the 250 ma. fuse F1 has blown. This is because F1 only fuses the B/ supply to the H.V. oscillator and the B- supply, if operating, will provide output.

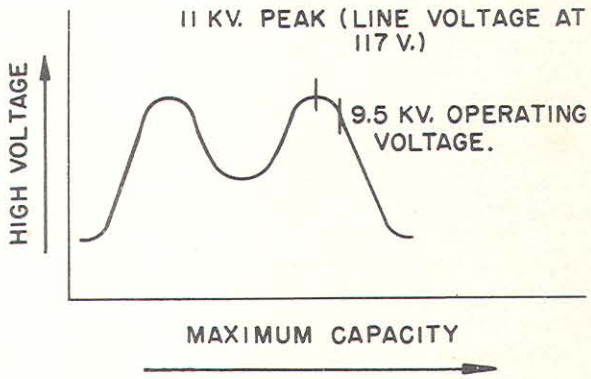

FIG. 17 - GRAPH OF H.V. OSCILLATOR

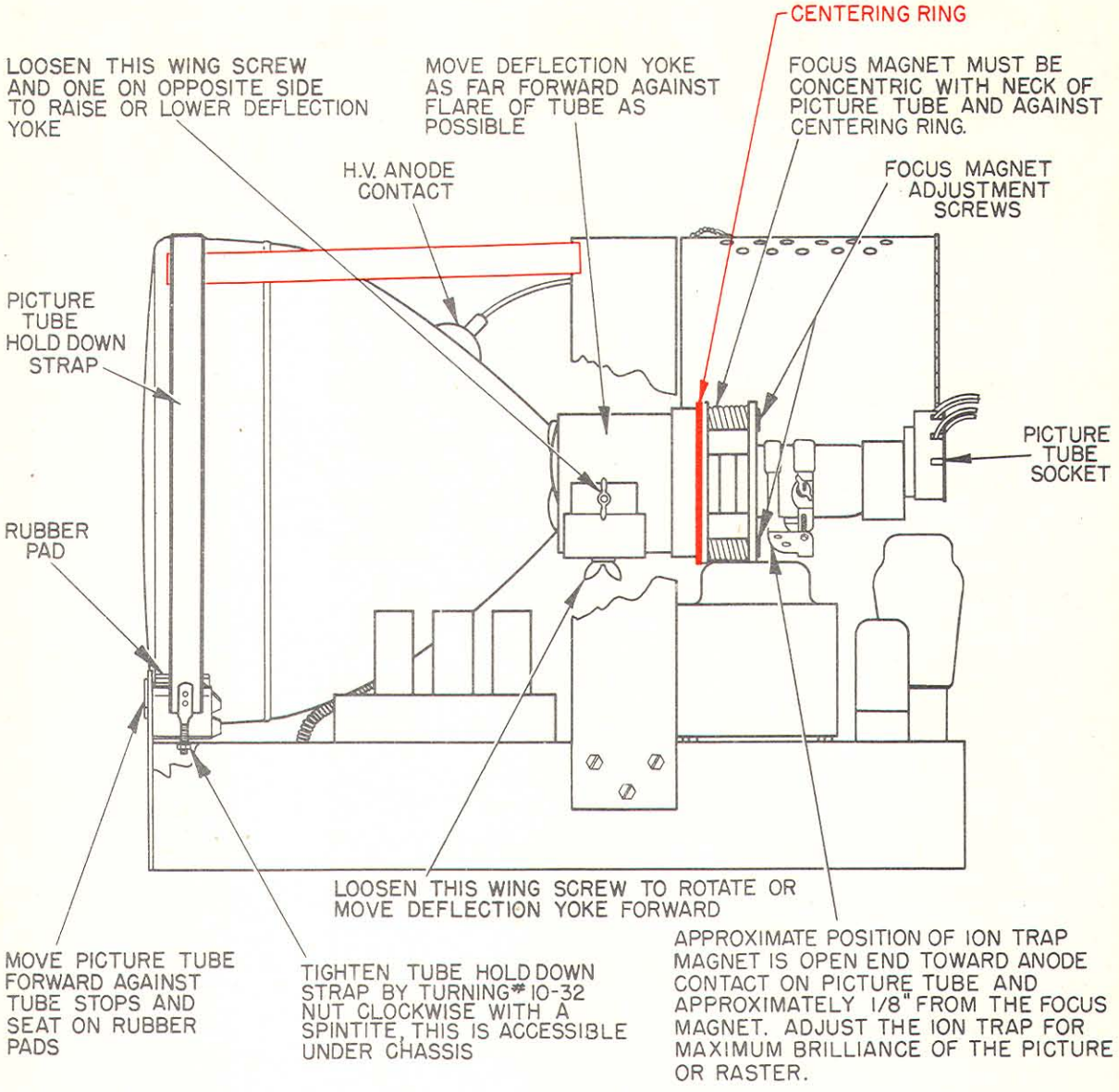

FIG. 18 - REVISED PICTURE TUBE INSTALLATION

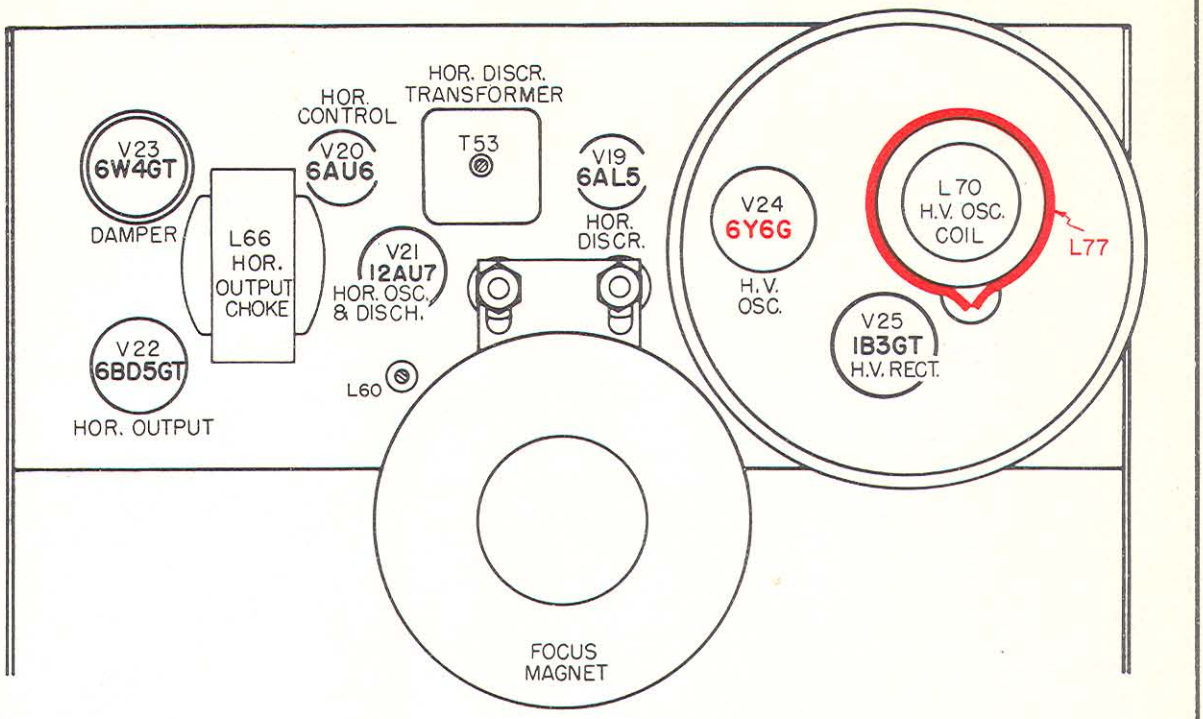

FIG. 19 - BRIDGE - TOP LAYOUT (B12, B13)

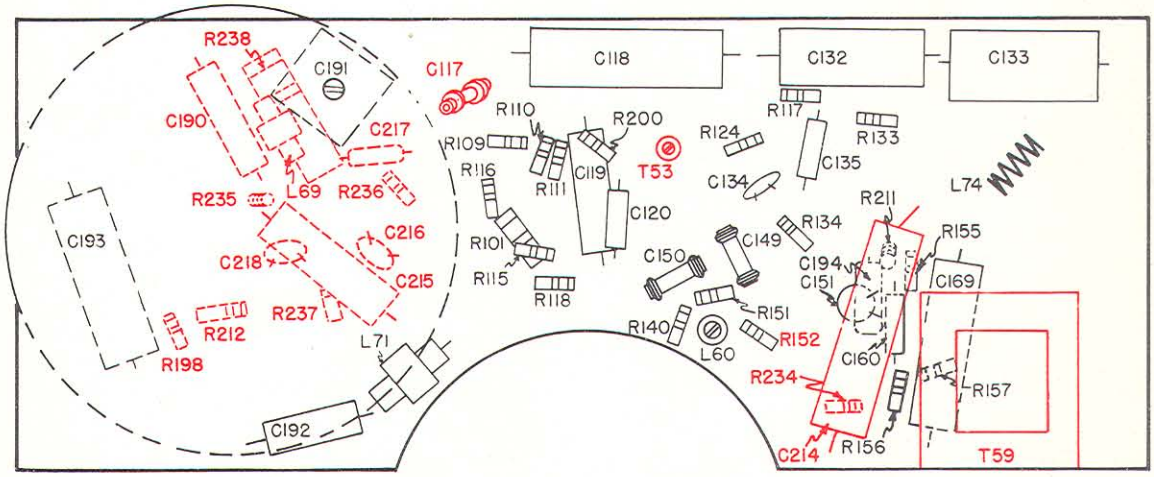

FIG. 20 - BRIDGE - BOTTOM LAYOUT (B12, B13)

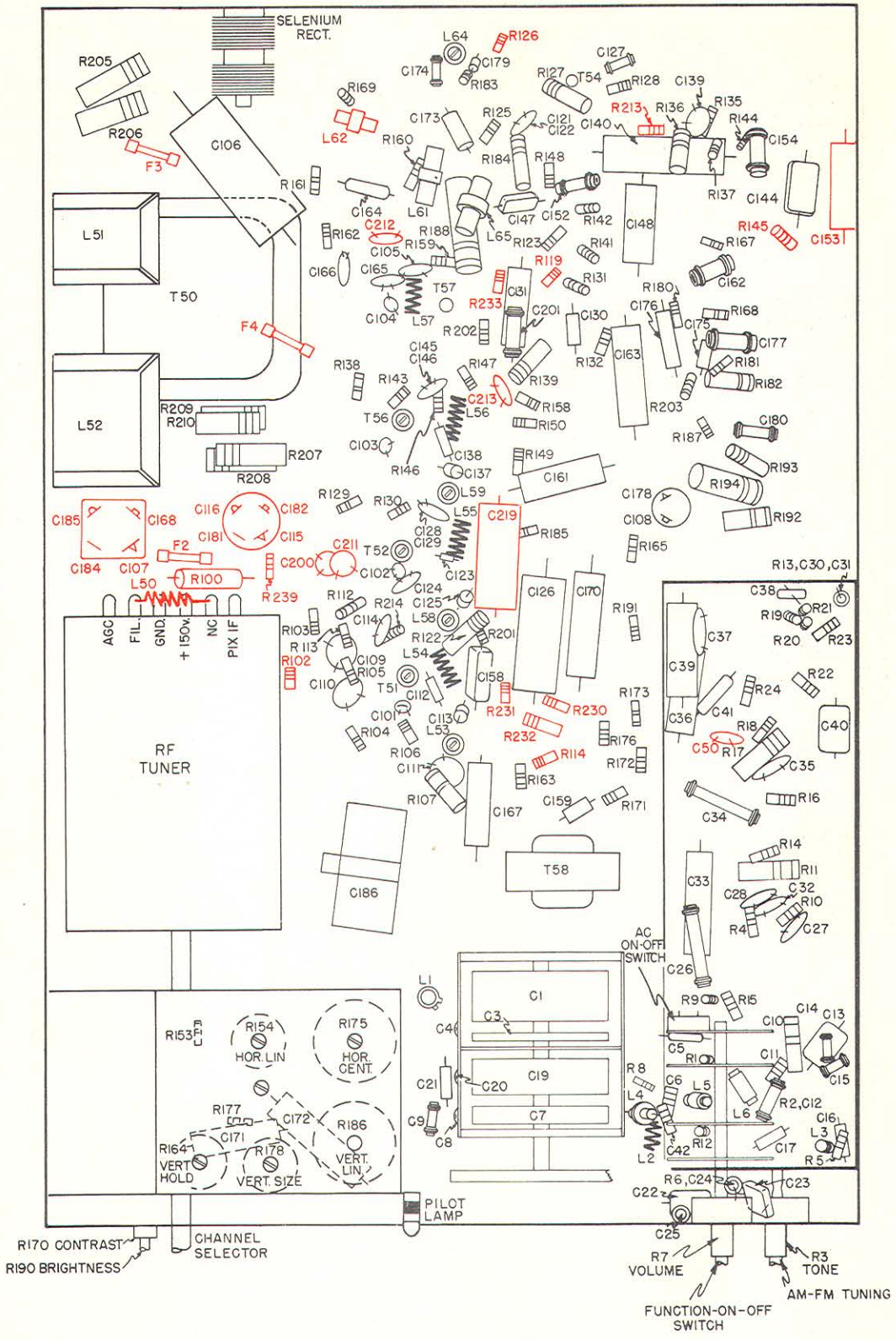

FIG. 21 - CHASSIS BOTTOM LAYOUT (C12, C13)

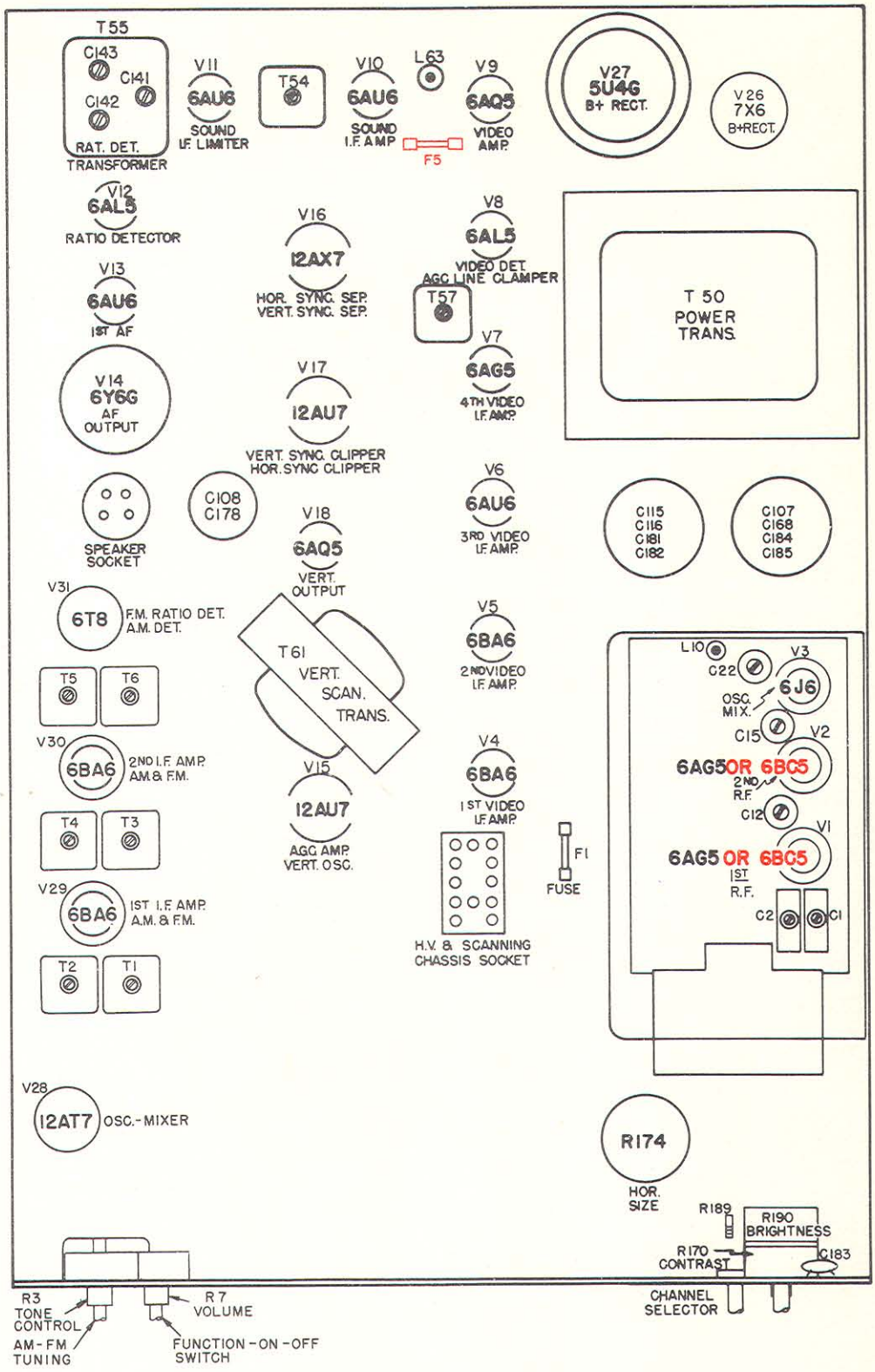

FIG. 22 - CHASSIS TOP LAYOUT (C12, C13)

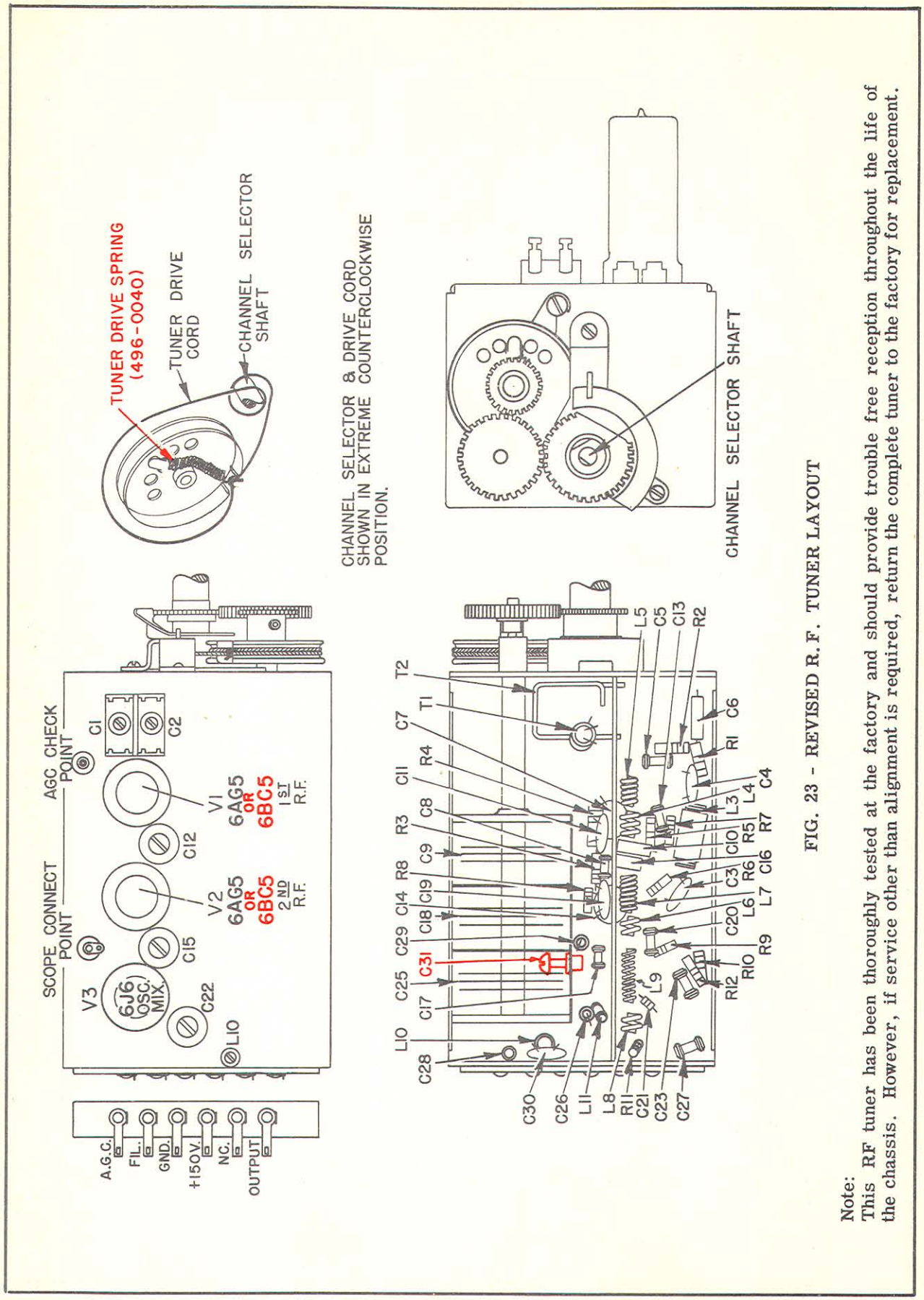

FIG. 23 - REVISED R.F. TUNER LAYOUT

Note:
This RF tuner has been thoroughly tested at the factory and should provide trouble free reception throughout the life of the chassis. However, if service other than alignment is required, return the complete tuner to the factory for replacement.

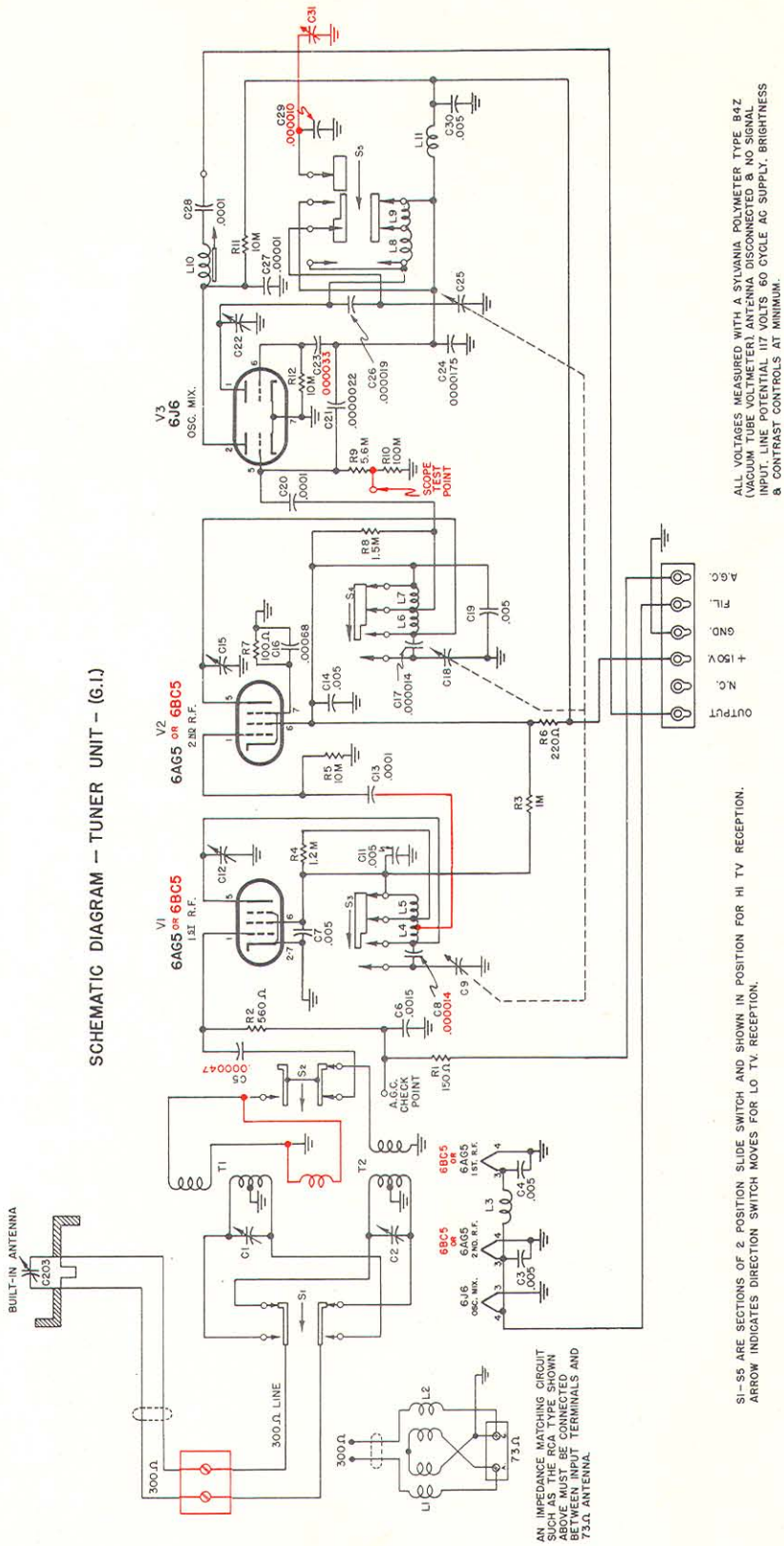

FIG. 24 - REVISED R. F. TUNER SCHEMATIC DIAGRAM

REVISED REPAIR PARTS LIST

CHASSIS C12, C13 - BRIDGE B12, B13

SCHEMATIC LOCATION	SERVICE PART NUMBER	DESCRIPTION
	196-0002	Anode Connector and Lead Assembly
	582-0002	Antenna Assembly - Built-in
	582-0001	Antenna Loop Assembly - BC
	726-0001	Background Dial
	482-0002	Base (for AM-FM Tuner Tube Shields)
	715-0001	Bezel - 10" (for Model 1-076)
	715-0002	Bezel - 12 1/2" (for Model 1-128)
	715-0003	Bezel - Station Dial
	416-0006	Board - Antenna - Two Terminal
C131	162-0623	Capacitor - Paper - .003 Mfd. - 600 V.
C119	162-0625	Capacitor - Paper - .005 Mfd. - 600 V.
C167	162-04115	Capacitor - Paper - .015 Mfd. - 400 V.
C171	162-0612	Capacitor - Paper - .02 Mfd. - 600 V.
C33, C36, C161, C192	162-0615	Capacitor - Paper - .05 Mfd. - 600 V.
C148, C163, C169, C170, C172	162-0601	Capacitor - Paper - 0.1 Mfd. - 600 V.
C118, C140	162-0402	Capacitor - Paper - .2 Mfd. - 600 V.
C112, C138	168-0004P	Capacitor - Ceramic - .00000068 Mfd. - 500 V.
C123	168-0001P	Capacitor - Ceramic - .0000015 Mfd. - 500 V.
C6	168-0006P	Capacitor - Ceramic - .000002 Mfd. - 500 V.
C137	168-0008N	Capacitor - Ceramic - .0000047 Mfd. - 500 V.
C9, C11, C17	166-0006P	Capacitor - Ceramic - .000006 Mfd. - 500 V.
C125	166-0008N	Capacitor - Ceramic - .000008 Mfd. - 500 V.
C113, C164, C173	166-0010P	Capacitor - Ceramic - .00001 Mfd. - 500 V.
C21	166-0015P	Capacitor - Ceramic - .000015 Mfd. - 500 V.
C127	166-0050N	Capacitor - Ceramic - .00005 Mfd. - 500 V.
C16, C42	166-0050P	Capacitor - Ceramic - .00005 Mfd. - 500 V.
C15	166-0075N	Capacitor - Ceramic - .000075 Mfd. - 500 V.
C10, C120, C175	166-0100P	Capacitor - Ceramic - .0001 Mfd. - 500 V.
C159	166-0250P	Capacitor - Ceramic - .00025 Mfd. - 500 V.
C130	166-0500P	Capacitor - Ceramic - .0005 Mfd. - 500 V.
C101, C102, C103, C104	166-1000D	Capacitor - Ceramic - .001 Mfd. - 600 V.
C160	166-1000P	Capacitor - Ceramic - .001 Mfd. - 500 V.
C176	166-2000P	Capacitor - Ceramic - .002 Mfd. - 500 V.
C14	166-2000N	Capacitor - Ceramic - .002 Mfd. - 500 V.
C121, C122, C128, C129, C145, C146	168-0003D	Capacitor - Ceramic - .004 Mfd. - Dual - 450 V.
C105, C109, C110, C111, C114, C124, C134, C139, C151, C165, C166, C183, C200, C211, C212, C213, C216, C218	166-5000D	Capacitor - Ceramic - .005 Mfd. - 450 V.
C25, C117, C149, C150, C152, C154, C162, C177, C180, C201	168-0002N	Capacitor - Ceramic - .01 Mfd. - 500 V.
C27, C28, C32, C35, C37, C50	168-0002D	Capacitor - Ceramic - .01 Mfd. - 500 V.
C26, C34	168-0007N	Capacitor - Ceramic - .02 Mfd. - 500 V.
C5	163-0025	Capacitor - Mica - .000025 Mfd. - 500 V.
C22	163-0050	Capacitor - Mica - .00005 Mfd. - 500 V.
C18, C135	163-0100	Capacitor - Mica - .0001 Mfd. - 500 V.
C23	163-0200	Capacitor - Mica - .0002 Mfd. - 500 V.
C147	163-0220	Capacitor - Mica - .00022 Mfd. - 500 V.
C41	163-0250	Capacitor - Mica - .00025 Mfd. - 500 V.
C13, C40	163-0500	Capacitor - Mica - .0005 Mfd. - 500 V.
C38, C144, C194, C217	163-0680	Capacitor - Mica - .00068 Mfd. - 500 V.
C158	163-1000	Capacitor - Mica - .001 Mfd. - 500 V.
C132	160-42115	Capacitor - Molded Polystyrene - .015 Mfd. - 400 V.
C190	160-42122	Capacitor - Molded - .022 Mfd. - 400 V.
C215	162-04147	Capacitor - Molded - .047 Mfd. - 400 V.
C193	160-14350	Capacitor - Molded - .0005 Mfd. - 10,000 V.

REVISED REPAIR PARTS LIST

CHASSIS C12, C13 - BRIDGE B12, B13

SCHEMATIC LOCATION	SERVICE PART NUMBER	DESCRIPTION
	190-0004	Capacitor - Resistor Combination
C12		Capacitor - .01 Mfd.
R2		Resistor - 1,500 Ohm
	190-0003	Capacitor - Resistor Combination
C30, C31		Capacitor - .0001 Mfd.
R13		Resistor - 47,000 Ohm
	190-0002	Capacitor - Resistor Combination
C24		Capacitor - .01 Mfd.
R6		Resistor - 82,000 Ohm
C191	172-0022	Capacitor - Trimmer - H.V. Supply
C203	172-0023	Capacitor - Trimmer - Antenna Assembly
C39, C153	161-1001	Capacitor - Electrolytic - 2 Mfd. - 50 V.
C126	161-1004	Capacitor - Electrolytic - 10 Mfd. - -12 V. /150 V.
C214	161-1000	Capacitor - Electrolytic - 10 Mfd. - 25 V.
C133	161-1005	Capacitor - Electrolytic - 20 Mfd. - 250 V.
C106	161-1003	Capacitor - Electrolytic - 60 Mfd. - 200 V.
C186	161-1002	Capacitor - Electrolytic - 100 Mfd. - 50 V.
C178	161-2001	Capacitor - Electrolytic - 25 Mfd. - 25 V.
C108		40 Mfd. - 250 V.
C181	161-4001	Capacitor - Electrolytic - 20 Mfd. - 150 V.
C115		40 Mfd. - 250 V.
C182		60 Mfd. - 250 V.
C116		80 Mfd. - 250 V.
C168	161-4000	Capacitor - Electrolytic - 10 Mfd. - 300 V.
C185		10 Mfd. - 450 V.
C107		60 Mfd. - 200 V.
C184		100 Mfd. - 50 V.
C1, C3, C7, C19	170-0001	Capacitor - AM-FM - Variable Tuning
L52	145-0001	Choke - Filter - B/
L51	145-0002	Choke - Filter - B-
L66	241-0002	Choke - Horizontal Output
L50, L54, L55, L56, L57, L74	147-0014	Choke - I.F. Heater
L3	146-0009	Choke - Oscillator Cathode
L5	146-0008	Choke - Oscillator Plate
L4	113-0011	Choke - BC Oscillator
L1	111-0006	Coil - F.M. Antenna
L2	113-0012	Coil - F.M. Oscillator
L69, L71	146-0006	Coil - Filter - H.V. Supply
L70	113-0010	Coil - H.V. Supply
L77	147-0015	Coil - H.V. Filament
T51, T52, T56	125-0001	Coil - I.F. Interstage
L53, L58, L59	118-0003	Coil - I.F. Trap
L6, L75, L76	146-0007	Coil - Power & Filament Line Choke
L60	146-0005	Coil - Ringing
L63, L64	129-0001	Coil - Sound - Takeoff - 4.5 Mc. Trap
C174		Capacitor - Ceramic - .0000047 - Trap
C179		Capacitor - Ceramic - .000056 - Sound Takeoff
R183		Resistor - 6800 Ohm - 1/2 W. - Sound Takeoff
L61	146-0001	Coil - Video Peaking #1
L62	146-0002	Coil - Video Peaking #2
L65	146-0004	Coil - Video Peaking #3
R3	153-0004	Control - Tone
R7	153-0003	Control - Volume
R170, R190	155-0003	Control - Brightness & Contrast
R175	153-3002	Control - Horizontal Centering
R154	153-0002	Control - Horizontal Linearity
R174	153-3004	Control - Horizontal Size
R164	153-0001	Control - Vertical Hold

REVISED REPAIR PARTS LIST

CHASSIS C12, C13 - BRIDGE B12, B13

SCHEMATIC LOCATION	SERVICE PART NUMBER	DESCRIPTION
R186	153-3000	Control - Vertical Linearity
R178	153-0001	Control - Vertical Size
	195-0001	Cord - AC Line
	760-0001	Cover - Bottom
	483-0006	Cover and Chain Assembly - H.V. Supply
	722-0009	Dial - Function Switch
	400-0001	Focus Magnet Assembly
F1	191-0005	Fuse - 1/4 Amp. - 250 V. (clip type)
F2, F3	191-0007	Fuse - 1/4 Amp. - 250 V. (wire-in)
F4	191-0006	Fuse - 20 Amp. - 32 V. (wire-in)
F5	191-0008	Fuse - 3.2 Amp. - 125 V. - Slow-Blow (clip type)
	743-0001	Knob - Channel Assembly
	740-0001	Knob - Tuner - Shaft
	744-0005	Knob - Outer - Shaft
	740-0002	Knob - Function Switch
	611-0007	Lamp - 117 V. - Compartment Light
	611-0047	Lamp - Mazda Type #47
	591-0003	Leaflet - Customer Instruction
	199-0002	Light Assembly - Compartment
	400-0002	Magnet Assembly - Ion Trap
	792-0002	Pointer - AM-FM Dial
	792-0001	Pointer - TV Tuning
	415-0002	Plug - AC - Interlock
	415-0001	Plug - 4 Prong
	196-0001	Plug and Leads Assembly (14 Prong)
	494-0006	Pulley - Metal (.250 Dia.)
	494-0005	Pulley - Metal (.500 Dia.)
	517-0001	Rectifier - Selenium
R1	189-0008	Resistor - 2.2 Ohm - 1/2 W.
R212	189-0009	Resistor - 3.6 Ohm - 1/2 W.
R101	189-0007	Resistor - 4.3 Ohm - 1/2 W.
R8	181-0120	Resistor - 12 Ohm - 1/2 W.
R10, R16, R125, R169, R187, R231	181-0680	Resistor - 68 Ohm - 1/2 W.
R106, R157, R214	181-0820	Resistor - 82 Ohm - 1/2 W.
R146, R147, R162, R236	181-0101	Resistor - 100 Ohm - 1/2 W.
R213	181-0121	Resistor - 120 Ohm - 1/2 W.
R143	181-0151	Resistor - 150 Ohm - 1/2 W.
R14	181-0471	Resistor - 470 Ohm - 1/2 W.
R195, R196	181-0561	Resistor - 560 Ohm - 1/2 W.
R105, R113, R133, R185, R191, R239	181-0102	Resistor - 1,000 Ohm - 1/2 W.
R165	181-0122	Resistor - 1,200 Ohm - 1/2 W.
R18	181-0152	Resistor - 1,500 Ohm - 1/2 W.
R124	181-0222	Resistor - 2,200 Ohm - 1/2 W.
R112, R104	181-0272	Resistor - 2,700 Ohm - 1/2 W.
R130	181-0332	Resistor - 3,300 Ohm - 1/2 W.
R161	181-03925	Resistor - 3,900 Ohm - 1/2 W.
R203, R211	181-0472	Resistor - 4,700 Ohm - 1/2 W.
R176, R230	181-04725	Resistor - 4,700 Ohm - 1/2 W.
R159	181-0562	Resistor - 5,600 Ohm - 1/2 W.
R117	181-0822	Resistor - 8,200 Ohm - 1/2 W.
R114, R123, R234	181-0103	Resistor - 10,000 Ohm - 1/2 W.
R129, R138	181-0153	Resistor - 15,000 Ohm - 1/2 W.
R160	181-02235	Resistor - 22,000 Ohm - 1/2 W.
R140, R171	181-0223	Resistor - 22,000 Ohm - 1/2 W.
R4, R5, R12, R189	181-0273	Resistor - 27,000 Ohm - 1/2 W.
R22, R115	181-03335	Resistor - 33,000 Ohm - 1/2 W.
R131, R135	181-0333	Resistor - 33,000 Ohm - 1/2 W.

REVISED REPAIR PARTS LIST

CHASSIS C12, C13 - BRIDGE B12, B13

SCHEMATIC LOCATION	SERVICE PART NUMBER	DESCRIPTION
R155	181-0393	Resistor - 39,000 Ohm - 1/2 W.
R126, R128, R201	181-0473	Resistor - 47,000 Ohm - 1/2 W.
R152	181-0563	Resistor - 56,000 Ohm - 1/2 W.
R24, R137, R142, R145	181-0683	Resistor - 68,000 Ohm - 1/2 W.
R9, R20, R23, R103, R110, R111, R134, R144, R173, R180	181-0104	Resistor - 100,000 Ohm - 1/2 W.
R118	181-01045	Resistor - 100,000 Ohm - 1/2 W.
R172, R148	181-0224	Resistor - 220,000 Ohm - 1/2 W.
R21, R158, R163	181-0274	Resistor - 270,000 Ohm - 1/2 W.
R153	181-0394	Resistor - 390,000 Ohm - 1/2 W.
R141, R156, R181, R198, R235	181-0474	Resistor - 470,000 Ohm - 1/2 W.
R233	181-06845	Resistor - 680,000 Ohm - 1/2 W.
R150	181-0824	Resistor - 820,000 Ohm - 1/2 W.
R177, R200, R202	181-0105	Resistor - 1 Megohm - 1/2 W.
R15, R109	181-01055	Resistor - 1 Megohm - 1/2 W.
R119, R132, R168	181-0155	Resistor - 1.5 Megohm - 1/2 W.
R19, R151	181-0225	Resistor - 2.2 Megohm - 1/2 W.
R149	181-0395	Resistor - 3.9 Megohm - 1/2 W.
R102	181-0685	Resistor - 6.8 Megohm - 1/2 W.
R167	181-0106	Resistor - 10 Megohm - 1/2 W.
R116	189-0010	Resistor - 10 Megohm - 1/2 W.
R182	182-0181	Resistor - 180 Ohm - 1 W.
R107, R122	182-0392	Resistor - 3,900 Ohm - 1 W.
R232	182-08225	Resistor - 8,200 Ohm - 1 W.
R127	182-0103	Resistor - 10,000 Ohm - 1 W.
R136	182-0153	Resistor - 15,000 Ohm - 1 W.
R11, R17, R139, R193	182-0223	Resistor - 22,000 Ohm - 1 W.
R184	182-0104	Resistor - 100,000 Ohm - 1 W.
R205, R206	183-0390	Resistor - 39 Ohm - 2 W.
R237	183-0221	Resistor - 220 Ohm - 2 W.
R207, R208, R209, R210	183-0391	Resistor - 390 Ohm - 2 W.
R100	183-0102	Resistor - 1,000 Ohm - 2 W.
R188	183-0332	Resistor - 3,300 Ohm - 2 W.
R192	183-0562	Resistor - 5,600 Ohm - 2 W.
R238	183-0563	Resistor - 56,000 Ohm - 2 W.
R194	187-0001	Resistor - 400 Ohm - 5 W.
	400-0005	Ring - Centering Assembly
	483-0007	Ring - Corona Shield - H.V. Supply
	551-0014	Screw - #2 x 3/4 Flat Head x Rec. - On-Off Dial Mtg.
	551-0015	Screw - #5 x 5/8" Oval Head x Rec. Brass Plate - Wood
	551-0016	Screw - #8 x 1/2" Rd. Hd. x Rec. - Wood
	482-0006	Shield - Tube - R.F. Tuner
	482-0005	Shield - Tube - Miniature
	414-0004	Socket - 4 Prong
	417-0001	Socket - 14 Prong
	411-0007	Socket - Pilot Lamp
	412-0011	Socket - Tube - 7 Prong Miniature for video chassis
	412-0013	Socket - Tube - 7 Prong Miniature for AM-FM chassis
	412-0001	Socket - Tube - 8 Prong Lock-in
	412-0006	Socket - Tube - 8 Prong Octal
	412-0009	Socket - Tube - 8 Prong Octal (for 1B3GT tube only - includes retaining ring)
	412-0010	Socket - Tube - 9 Prong Miniature
	539-1000	Speaker - 10" P.M. (for Model 1-076)
	539-1200	Speaker - 12" P.M. (for Model 1-128)
	496-0022	Spring - Picture Tube Ground
	496-0023	Spring - Dial Cord Tension

REVISED REPAIR PARTS LIST

CHASSIS C12, C13 - BRIDGE B12, B13

SCHEMATIC LOCATION	SERVICE PART NUMBER	DESCRIPTION
	496-0040	Spring - Tuner Drive
	499-0001	Strap Assembly - Picture Tube Mtg. (for Model 1-076)
	499-0012	Strap Assembly - Picture Tube Mtg. (for Model 1-128)
T1	121-0011	Transformer - 1st I.F. (10.7 Mc.)
T2	121-0010	Transformer - 1st I.F. (455 Kc.)
T3	122-0011	Transformer - 2nd I.F. (10.7 Mc.)
T4	122-0010	Transformer - 2nd I.F. (455 Kc.)
T5	119-0001	Transformer - Discr. Primary and 3rd A.M.
T6	128-0003	Transformer - 10.7 Mc. Discriminator
T60	143-0010	Transformer - Speaker Output
T55	128-0002	Transformer - 4.5 Mc. Sound Discriminator
T59	240-0001	Transformer - Heater Isolation
T53	128-0001	Transformer - Horizontal Discriminator
T57	120-0002	Transformer - I.F. Band Pass
T50	141-0008	Transformer - Power - 60 cycle (R70971)
		or
	141-0009	Transformer - Power - 60 cycle (R70814)
T54	120-0001	Transformer - Sound I.F.
T58	242-0001	Transformer - Vertical Oscillator
T61	241-0001	Transformer - Vertical Scanning
	623-0001	Tube - 6AG5
	623-0002	Tube - 6J6
	623-0003	Tube - 6AL5
	623-0004	Tube - 6BA6
	623-0005	Tube - 6AU6
	633-0002	Tube - 1B3GT
	633-0003	Tube - 5U4G
	623-0006	Tube - 12AU7
	633-0004	Tube - 6W4GT
	623-0007	Tube - 6AQ5
	623-0008	Tube - 12AX7
	622-0006	Tube - 6Y6G
	622-0007	Tube - 6BD5GT
	632-0003	Tube - 7X6
	623-0009	Tube - 12AT7
	623-0010	Tube - 6T8
	642-0001	Tube - 10" (for Model 1-076)
	642-0002	Tube - 12 1/2" (for Model 1-128)
	323-0001	Tuner Unit Assembly
	553-0026	Washer - Fiber - Spacer - .032" (yoke wing nut)
L67, L68, L72, L73	100-0001	Yoke - Vertical & Horizontal Deflection

SCHEMATIC DIAGRAM FOR I-108 TV CHASSIS (C12,C13) AND BRIDGE (B12,B13)

V10 6AU6 SOUND I.F. · V11 6AU6 SOUND I.F. LIMITER · V12 6AL5 RATIO DET. · V13 6AU6 1ST A.F. · V14 6Y6G A.F. OUTPUT · BOTTOM VIEW OF PLUG & SOCKET · T60

V4 6BA6 1ST VIDEO I.F. · V5 6BA6 2ND VIDEO I.F. · V6 6AU6 3RD VIDEO I.F. · V7 6AG5 4TH VIDEO I.F. · V8 6AL5 VIDEO DET. · V9 6AQ5 VIDEO AMP. · 10MP4 OR 12VP4 PICTURE TUBE

R.F. TUNER · OUTPUT · A.G.C. · +150v · FIL. · L50 · 6.3v · +180v. (B) · +170v. (C)

V8 6AL5 AGC LINE CLAMPER

CONTRAST CONTROL · BRIGHTNESS CONTROL

V15 12AU7 AGC AMP · V16 12AX7 HOR. SYNC. SEP. · V17 12AU7 HOR. SYNC. CLIPPER · V16 12AX7 VERT. SYNC. SEP. · V17 12AU7 VERT. SYNC. CLIPPER · V15 12AU7 VERT. OSC. · V18 6AQ5 VERT. OUTPUT · TEST POINT (1) · VERTICAL DEFLECTION COIL · VERT. SIZE · VERT. LIN. · VERT. HOLD

PHONO AC OUTLET · F5 3.2A · V27 5U4G B+ RECT. · SELENIUM RECT. · V26 7X6 B+ RECT · F4 20A · F3 1/4A · L51 · C106 60 MFD 200v. · C107 60 MFD 200v. · HEATERS 6.3v.

V19 6AL5 HOR. DISCR. · V20 6AU6 HOR. CONT. · V21 12AU7 HOR. OSC. · V21 12AU7 HOR. DISCHARGE · V22 6BD5GT HOR. OUTPUT · V23 6W4-GT DAMPER · HORIZONTAL LINEARITY · HOR. CENT. · HOR. SIZE · HORIZONTAL DEFLECTION COILS · DO NOT ATTEMPT TO MEASURE THIS VOLTAGE · TO ALL B+ POINTS MARKED + 170 V.(C)

H.V. POWER SUPPLY · V25 1B3-GT H.V. RECT. · V24 6Y6G H.V. OSC. · DO NOT ATTEMPT TO MEASURE THIS VOLTAGE

V4 V5 V6 V7 V8 V23 · V19 · L54 L55 L56 L57 · T59

AUDIO +180v.(G) · 6.3 V. · TEL. B+ · B+ · AUDIO AMP. · PHONO · TEL. SOUND · AUDIO AMP. · POWER TRANS. · A.C. LINE CHOKE · TO HEATER CIRCUIT OF V24 · A.M.-FM TUNER · L75 L76 · INTERLOCK · C204 .0002 · AC LINE

* CONTRAST CONTROL AT MAXIMUM

ϕ BRIGHTNESS CONTROL AT MAXIMUM

▽ HIGH PEAK VOLTAGE OF SHORT DURATION (APPROX 2,000 V.) MAY DAMAGE METER USED FOR THIS MEASUREMENT

◪ USE HIGH VOLTAGE MULTIPLIER PROBE WITH SYLVANIA POLYMETER FOR ALL HIGH VOLTAGE MEASUREMENTS.

ALL VOLTAGES MEASURED WITH A SYLVANIA POLYMETER TYPE 1342 (VACUUM TUBE VOLTMETER) UNLESS OTHERWISE STATED. ANTENNA DISCONNECTED & NO SIGNAL INPUT. LINE POTENTIAL 117 VOLTS 60 CYCLES AC SUPPLY. BRIGHTNESS & CONTRAST CONTROLS AT MINIMUM UNLESS OTHERWISE STATED.

V10 V11 V12 V13 V14 · A (UNFUSED HEATERS)

THE H.V. AND SCANNING SECTION CHASSIS IS CONNECTED TO THE LOWER CHASSIS BY THE 14 PIN PLUG AND SOCKET SHOWN TO THE LEFT. THE PIN CONNECTIONS ARE ELECTRICALLY IDENTIFIED BY CIRCLED NUMBERS THROUGHOUT THE SCHEMATIC DIAGRAM.

HEATERS 6.3 V. · -125V ▼ +170V. · BOTTOM VIEW

FIG. 25 - SCHEMATIC DIAGRAM OF 1-108 CHASSIS C12, C13 - BRIDGE B12, B13

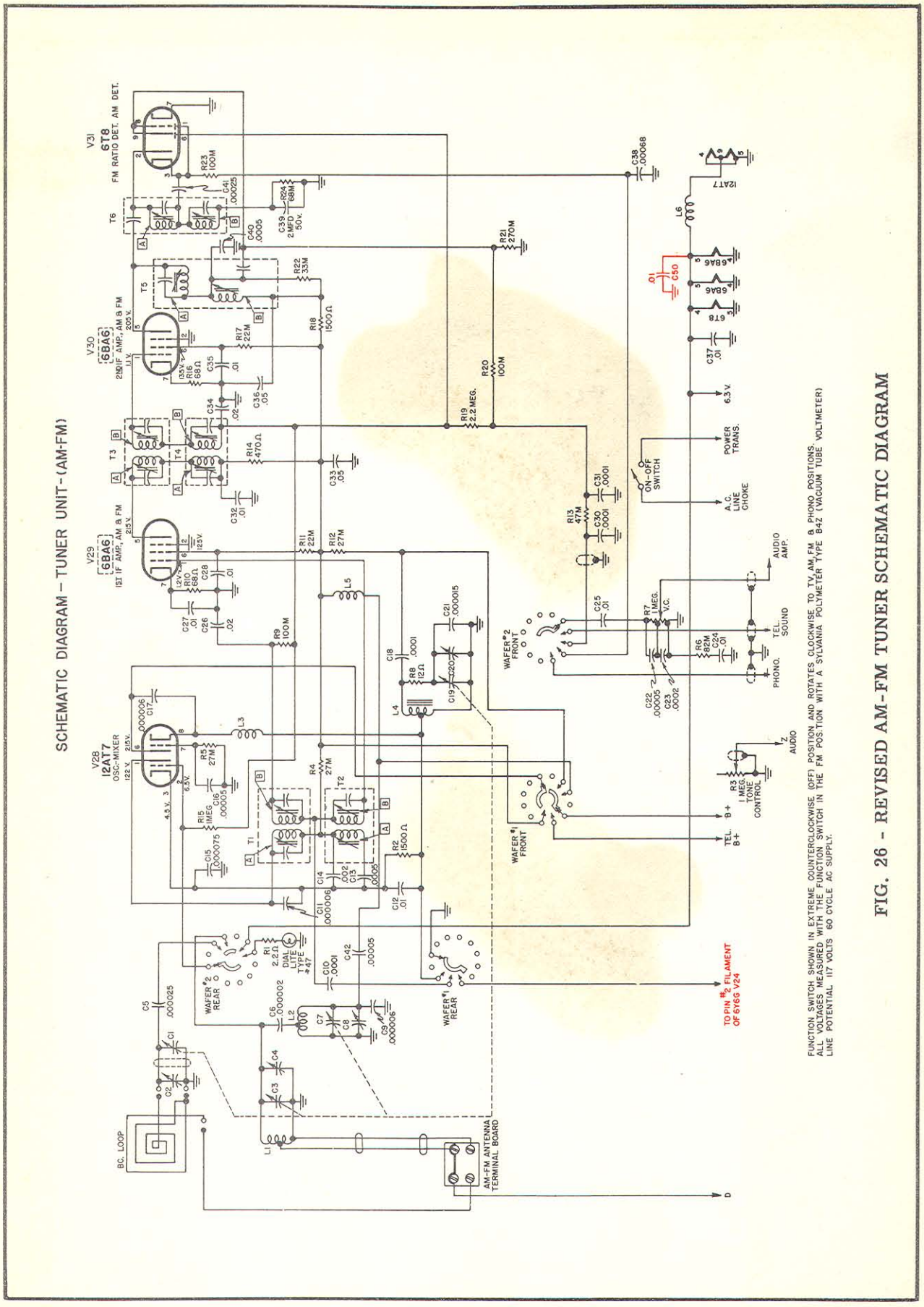

FIG. 26 - REVISED AM-FM TUNER SCHEMATIC DIAGRAM