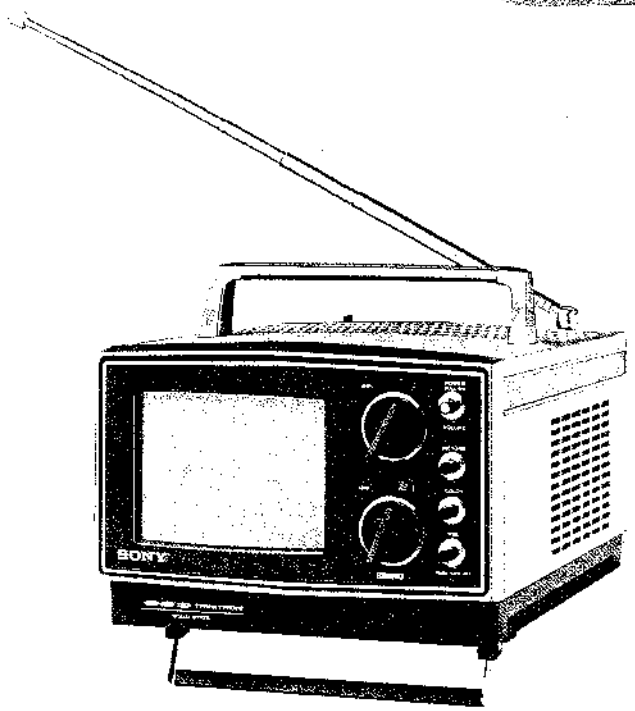
KV-5100

USA Model

Chassis No. SCC-378-B



TRINITRON®
COLOR TV

SPECIFICATIONS

Television System: American TV standards

Color System: NTSC

Picture Tube: 12.7 cm, 5" (measured diagonally), 55° deflection TRINITRON system

Semiconductors: 1 FET, 55 transistors, 47 diodes and 4 ICs

Antennas: VHF: 75 Ω unbalanced (telescopic dipole)
75 Ω unbalanced (external antenna jack)
UHF: 300 Ω balanced (loop antenna*)
*Note: Supplied with accessories

Channel Coverage: VHF channels: 2 – 13
UHF channels: 14 – 83
(70-position detent tuner)

Intermediate Frequencies: Picture i-f carrier: 45.75 MHz
Color subcarrier: 42.17 MHz
Sound i-f carrier: 41.25 MHz

Sound System: 4.5 MHz intercarrier
Output power: 0.5 W (at 10% harmonic distortion)
Speaker: 8 cm (3 1/4 inches) dia, 32 Ω

Video System: RGB cathode drive

Automatic Controls: ABL (automatic brightness limiter)
ACC (automatic color control)
ACK (automatic color killer)
AFC (automatic frequency control)
AFT (automatic fine tuning)
AGC (automatic gain control)
ANC (automatic noise canceller)
AVR (automatic voltage regulator)

Anode Voltage: 13 kV at zero beam current

Power Requirements: 120 V AC, 60 Hz
12V DC
24V DC

Power Consumption: 34 W (max) with 120V AC
22 W (average) with 12 V DC
19 W (average) with 24 V DC

Dimensions: 226 (w) x 169 (h) x 314 (d) mm
8 7/8 (w) x 6 5/8 (h) x 12 3/8 (d) inches

Net Weight: 5.9 kg (12 lb)

Accessories: Earphone (ME-20 B)
External antenna connector (EAC-4)
UHF loop antenna (AN-15)
AC cord
Instruction manual

X-RAY RADIATION WARNING

BE SURE THAT PARTS REPLACEMENT IN THE HIGH VOLTAGE BLOCK AND ADJUSTMENTS MADE TO THE HIGH VOLTAGE CIRCUITS ARE CARRIED OUT PRECISELY IN ACCORDANCE WITH THE PROCEDURES GIVEN IN THIS MANUAL.

SONY®

SERVICE MANUAL

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.

2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.

3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.

4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.

5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.

6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.

7. Check the condition of the monopole antenna (if any). Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.

8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate, be suspicious of your HV meter if sets always have low HV.

9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground must not exceed 0.2 mA (200 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.

2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.3 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A.)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most a-c outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60 – 100 watt trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line. The lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B.)

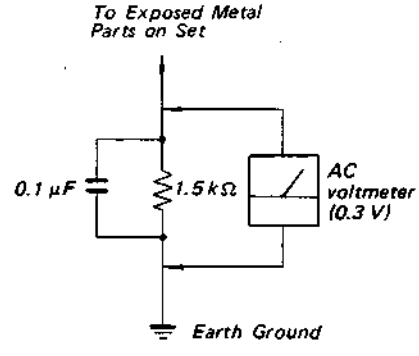


Fig. A. Using an AC voltmeter to check AC leakage.

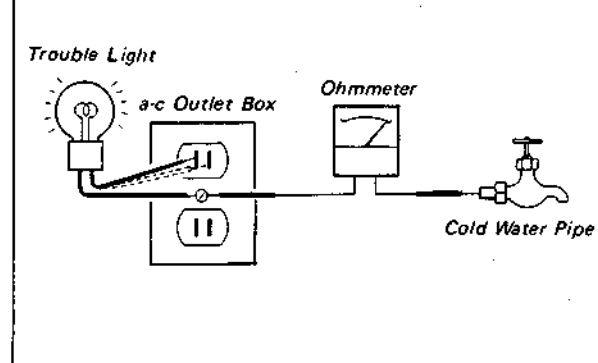
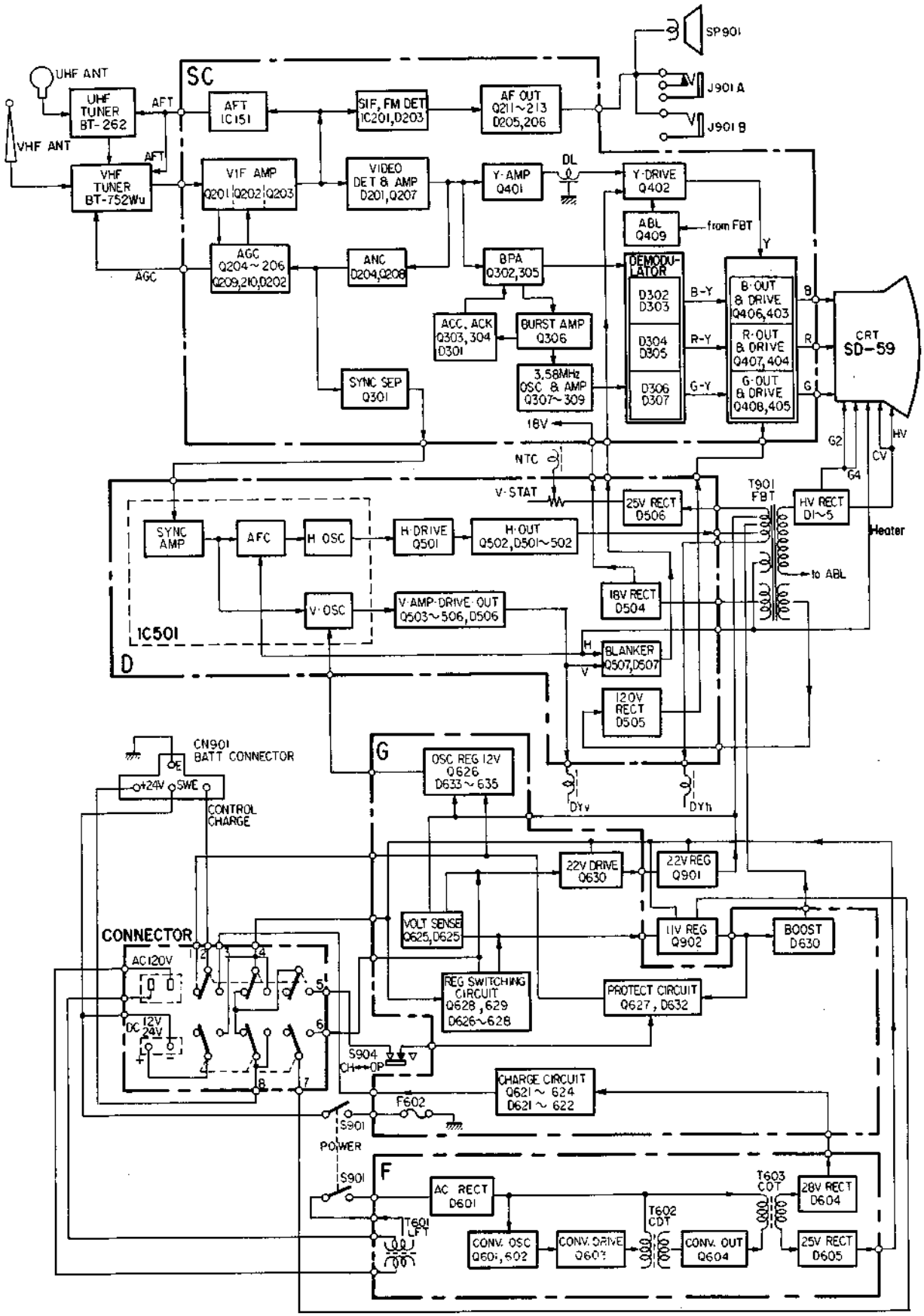


Fig. B. Checking for earth ground.

SECTION 1
BLOCK DIAGRAM

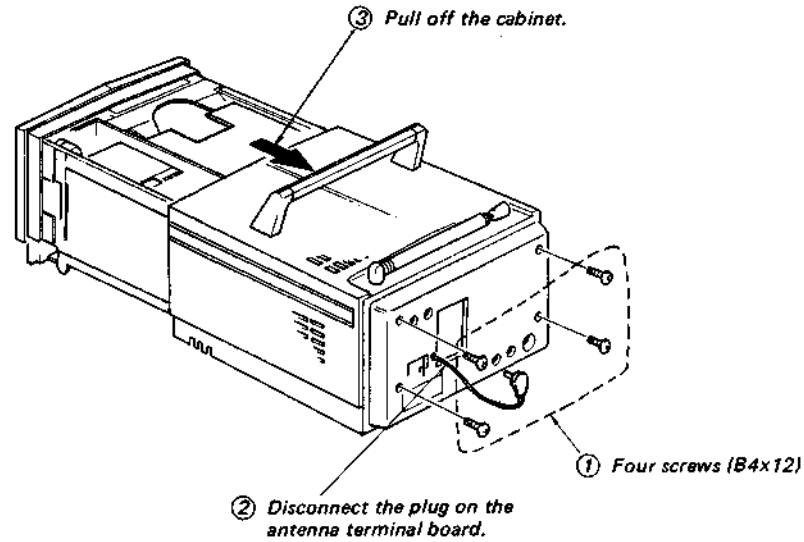


SECTION 2
DISASSEMBLY AND REPLACEMENT

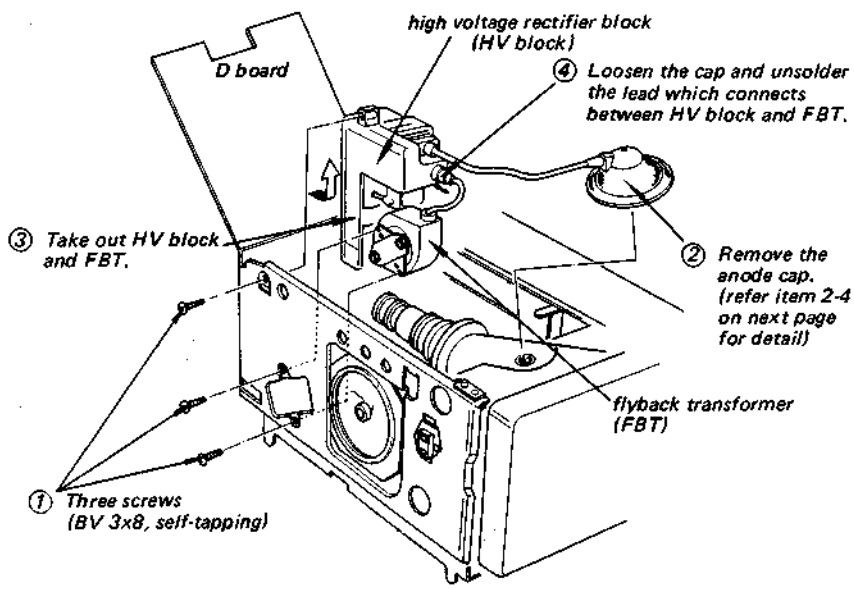
Perform the procedures in numerical order.

Note: All screws in this set are Phillips (cross recess) type unless otherwise noted.

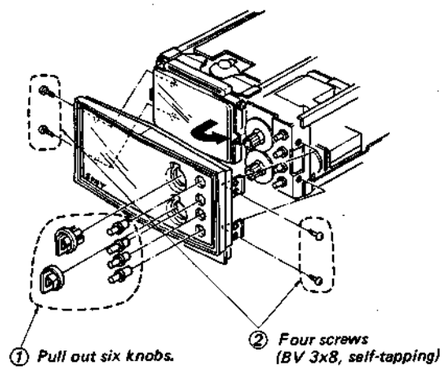
2-1. CABINET REMOVAL



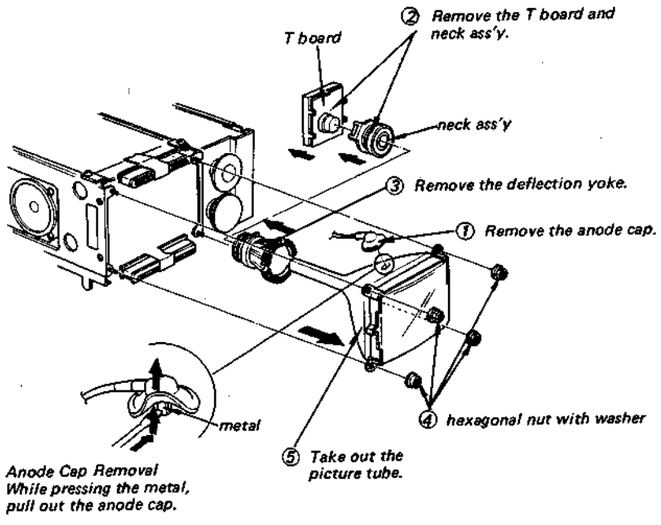
2-2. FLYBACK TRANSFORMER AND HIGH VOLTAGE BLOCK REMOVAL



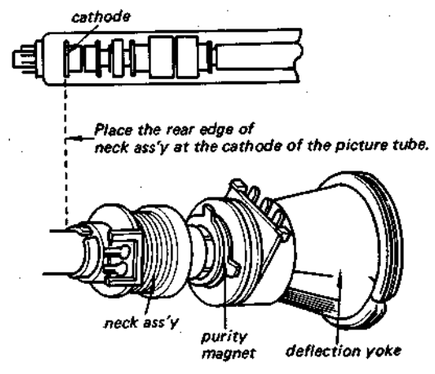
2-3. FRONT MASK ASS'Y REMOVAL



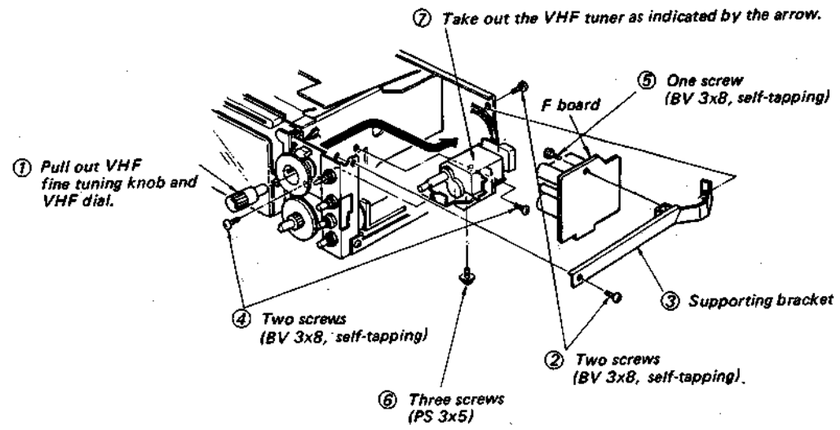
2-4. PICTURE TUBE REMOVAL



2-5. PICTURE TUBE INSTALLATION



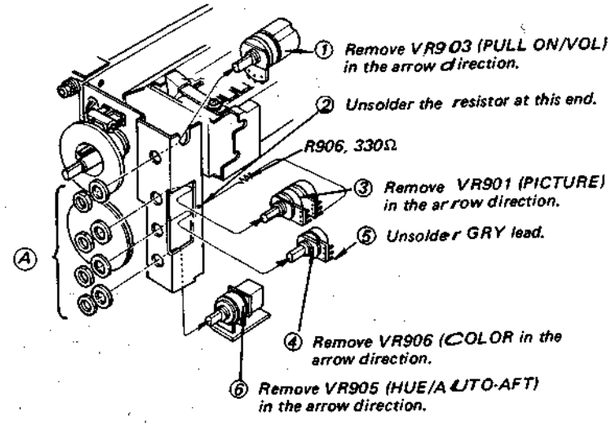
2-6. VHF TUNER REMOVAL



Note: Refer to the schematic diagram for the wiring of tuners.

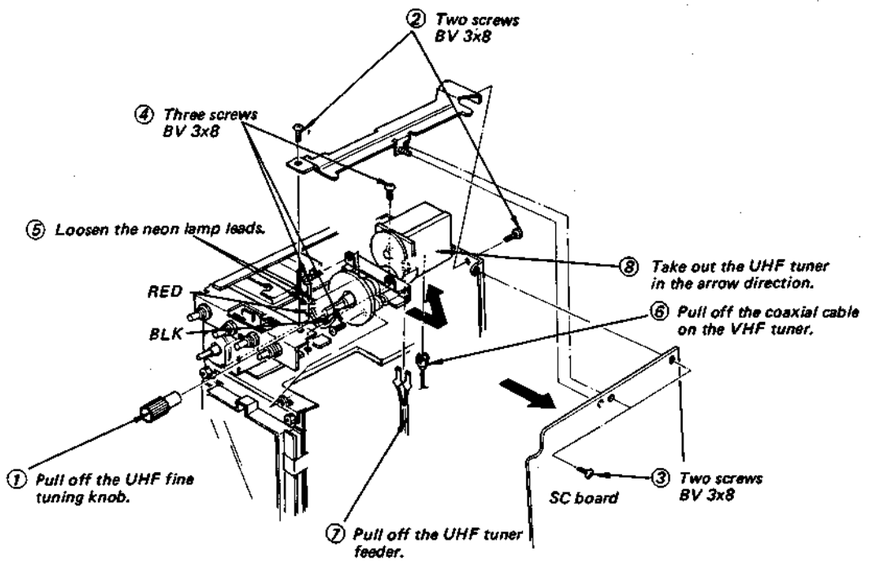
2-7. CONTROL REMOVAL

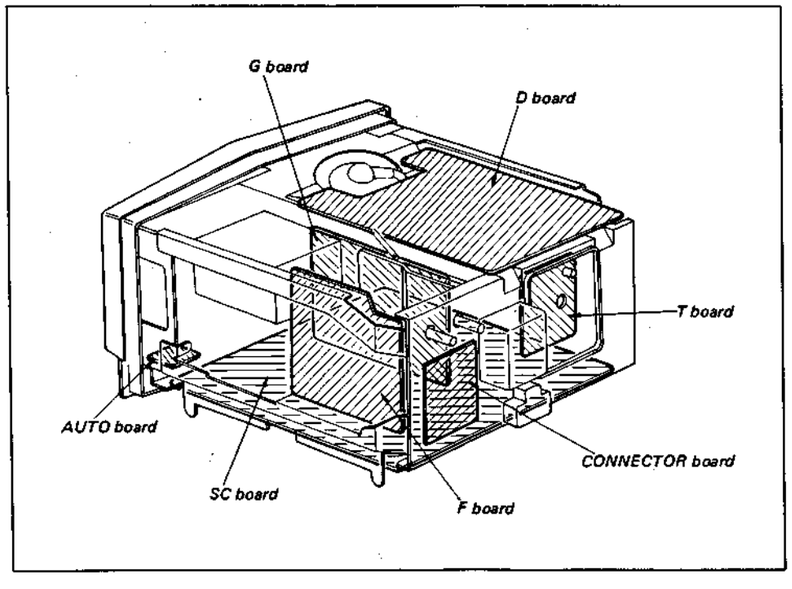
To remove VR903, proceed steps ①
To remove VR901, proceed steps ②, ③
To remove VR906, proceed steps ④, ⑤
To remove VR905, proceed steps ⑤, ⑥



Note: Before starting to remove each control, remove nut and washer as indicated Ⓐ.
Refer to the mounting diagrams for the wiring of variable resistors.

2-8. UHF TUNER REMOVAL





2-9. UHF TUNER DIAL CALIBRATION

Note: Usually, do not attempt repairing or replacement of the dial mechanism because it is precisely installed and adjusted in the factory.

–Circled Numbers Indicate Sequence–

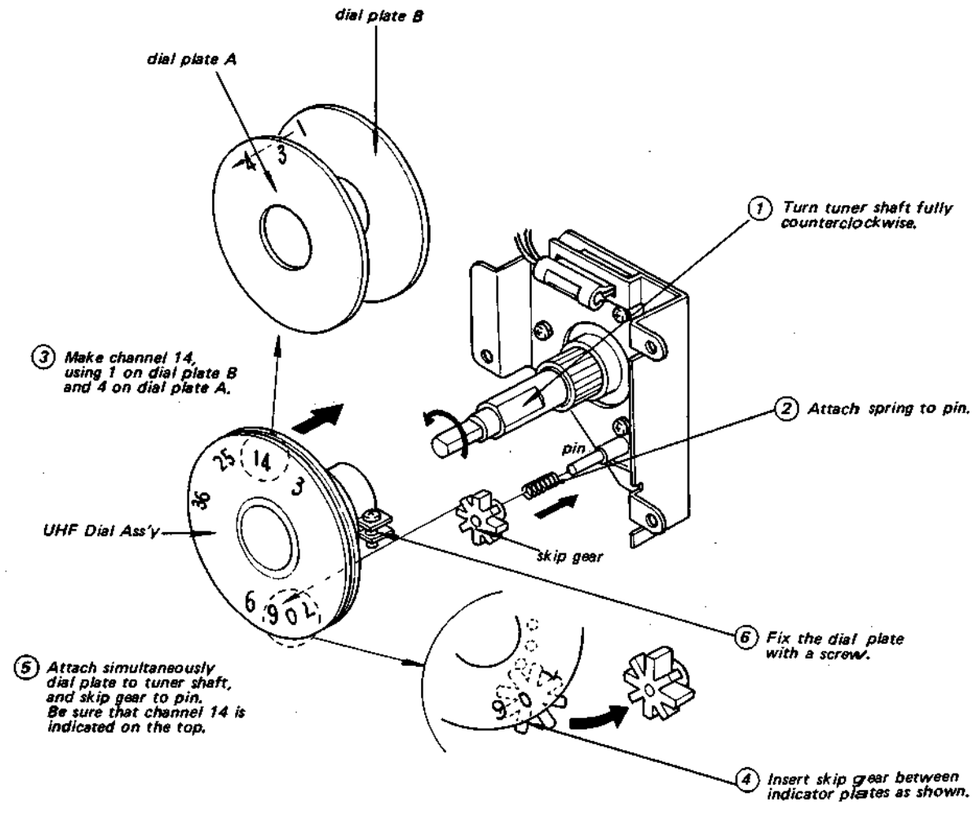


Fig. 2-9 UHF tuner dial calibration

SECTION 3
SETUP ADJUSTMENTS

3-1. BEAM LANDING ADJUSTMENT

Beam landing adjustment ensures correct landing of the three beams on their designated phosphor stripes. Incorrect beam landing results in color contamination (a predominant hue) in those particular areas of the screen. Also, this adjustment is made when a complete realignment is needed after picture tube replacement.

Preparation

on the screen	cross-hatch pattern from a color-bar/ pattern generator
BRT (VR904) control	fully clockwise
PICTURE (VR901) control	fully clockwise

Demagnetize the whole screen securely with degausser.

Adjustment Procedure

(1) Spread the purity magnet as shown in Fig. 3-1.

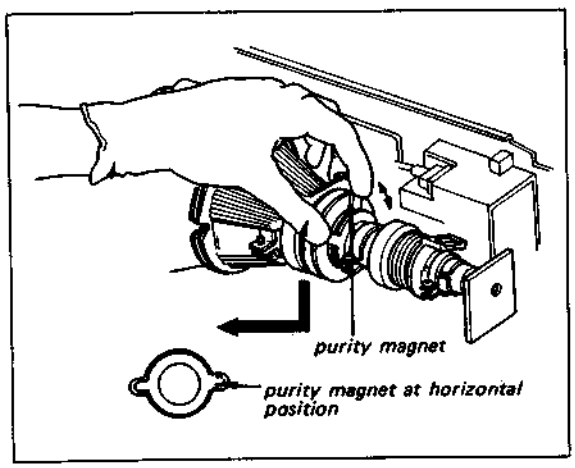


Fig. 3-1. Purity magnet adjustment

(2) Loosen the screw as shown in Fig. 3-2.

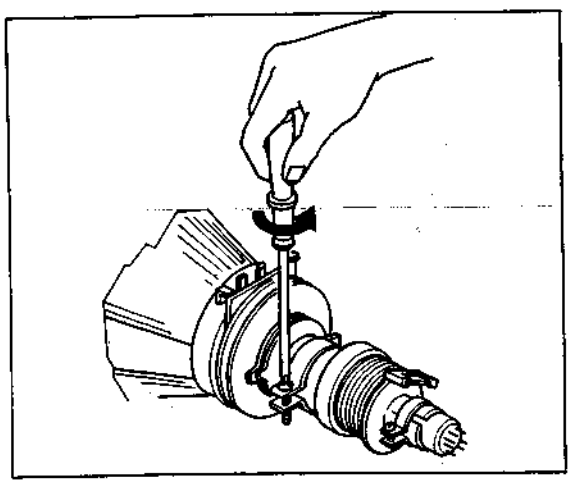


Fig. 3-2. Deflection yoke loosening

(3) Slide the deflection yoke forward as far as it will go against the funnel of the picture tube as shown in Fig. 3-3.

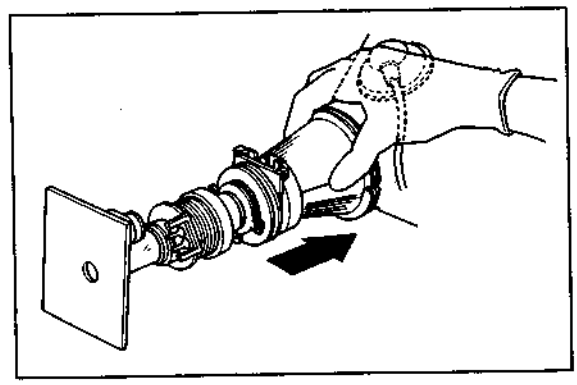


Fig. 3-3. Deflection yoke movement

(4) Unsolder the red and blue leads on the T board as shown in Fig. 3-4.

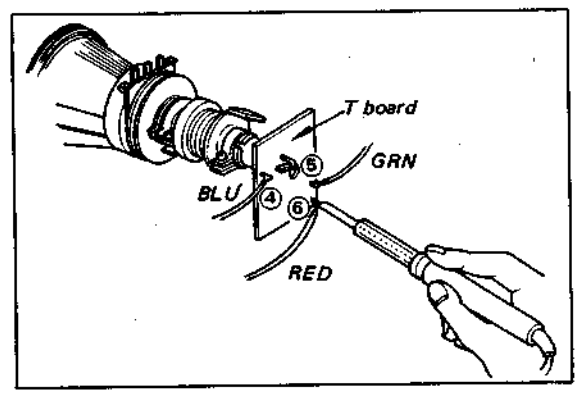


Fig. 3-4. Leads unsoldering

(5) Adjust the purity magnet tabs to center the green band on the screen as shown in Fig. 3-5. Note that the purity magnet tabs should be placed equal amounts in opposite directions as shown in Fig. 3-6 (a = b).

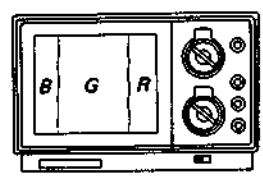


Fig. 3-5. Green band centering

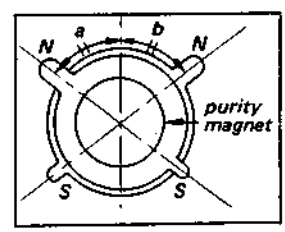


Fig. 3-6. Purity magnet position

(6) Slide the deflection yoke backward to obtain a uniform green over the entire screen as shown in Fig. 3-7 and Fig. 3-8.

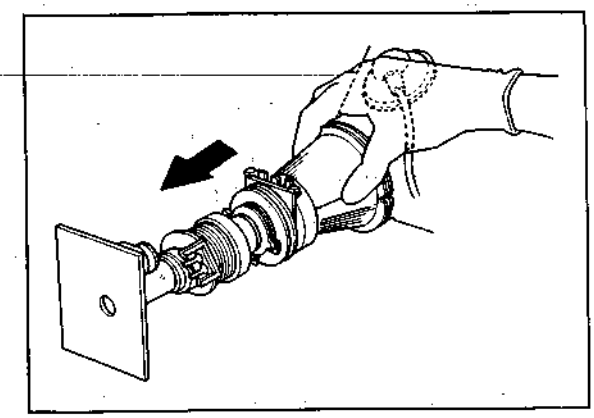


Fig. 3-7. Deflection yoke movement

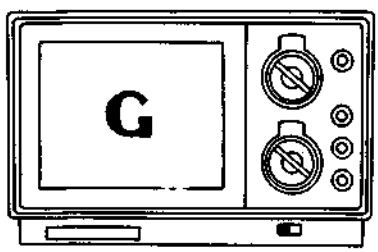


Fig. 3-8. Green raster screen

(7) Tighten the screw of the deflection yoke.

(8) Solder the red and blue leads on the T board which had been removed in Step 4.

3-2. CONVERGENCE ADJUSTMENT

This adjustment consists of horizontal and vertical static convergence.

Note: Conventional dynamic convergence adjustment is not necessary in this small picture tube.

Preparation

on the screen	dot pattern from the color-bar/pattern generator
BRT (VR904) control	fully counterclockwise
PICTURE (VR901) control	optimum position

Horizontal Static Convergence

This adjustment is made to converge the red, green and blue dots horizontally at center of the screen.

Adjustment Procedure

(1) Adjust VR1 (H. STAT) to converge the dots horizontally at center of the screen as shown in Fig. 3-9 and Fig. 3-10. If this does not correct the convergence, proceed to Step (2).

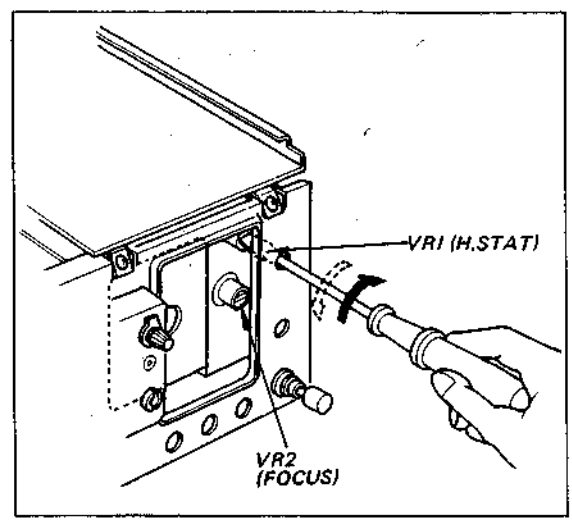


Fig. 3-9. H.STAT VR adjustment

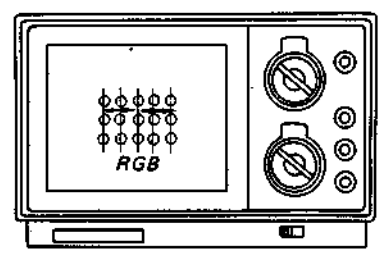


Fig. 3-10. Dots movement

(2) Install and move a BMC magnet horizontally as necessary as shown in Fig. 3-11.

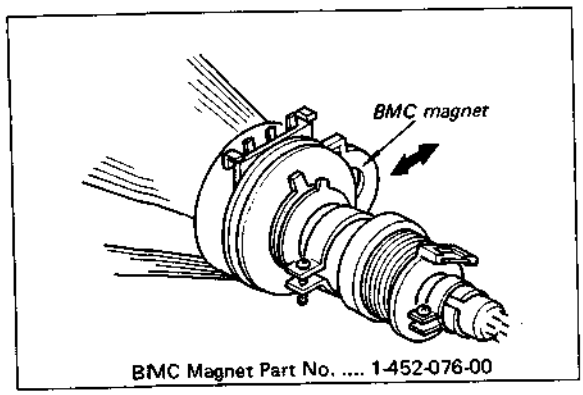


Fig. 3-11. BMC magnet adjustment

(3) Check for correct focus and landing.

Vertical Static Convergence

This adjustment is made to converge the red, green and blue dots vertically at center of the screen.

Adjustment Procedure

(1) Adjust VR504 (V.STAT) to converge the dots vertically as shown in Fig. 3-12 and in Fig. 3-13. If this does not correct the convergence, proceed the following.

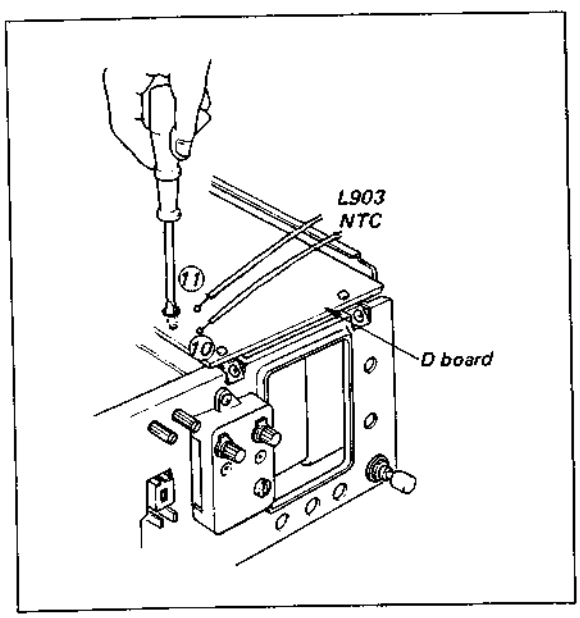


Fig. 3-12. V.STAT VR adjustment

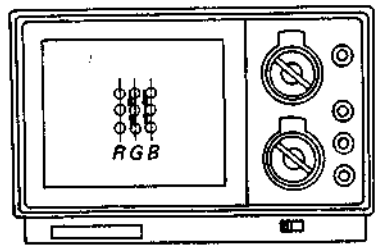


Fig. 3-13. Dots movement

If correct convergence cannot be obtained, reverse the lead wire connection at the terminal ⑩ and ⑪ as shown in Fig. 3-12, then readjust VR504.

(2) If the blue and red dots do not converge vertically with the green dots at center of the screen in the previous steps, install and rotate a BMC magnet as necessary as shown in Fig. 3-14.

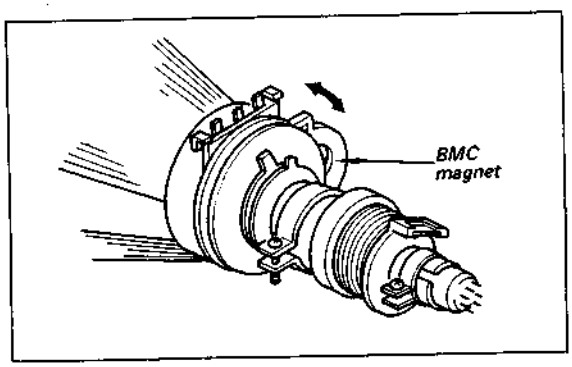


Fig. 3-14. BMC magnet adjustment

Note: 1. After a BMC adjustment, check for correct focus and landing.
2. 1-452-076-00 ..... BMC magnet

3-3. WHITE BALANCE ADJUSTMENT

This adjustment consists of low-level and high-level white balance adjustments.

Low-level White Balance Adjustment

Preparation

on the screen ..... cross-hatch pattern from the color-bar/pattern generator

BRT and PICTURE controls ..... fully counterclockwise

Red, Green, Blue (VR403, 405 and 401) drive controls ..... fully counterclockwise as viewed from the printed pattern

Red, Green, Blue BKG controls (VR404, 406 and 402) ..fully counterclockwise

Adjustment Procedure

(1) Turn the SCRN control (VR701) slowly and note the hue (red, green or blue) that becomes faintly visible first as shown in Fig. 3-15.

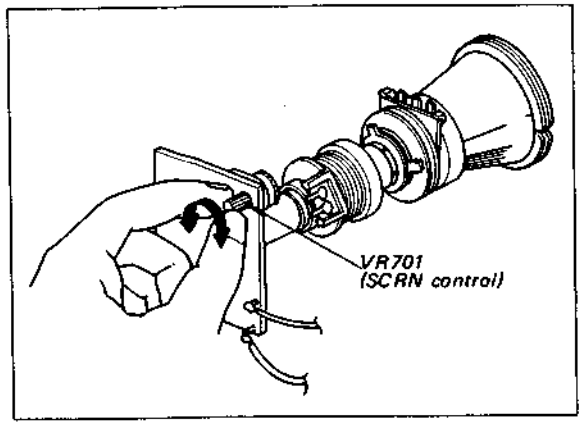


Fig. 3-15. SCRN control adjustment

(2) Adjust the BKG controls for other two colors to obtain the optimum white balance (nearly gray).

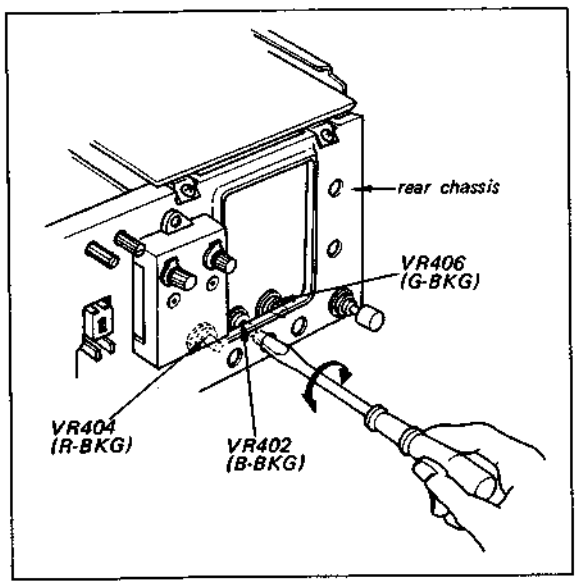


Fig. 3-16. Background controls adjustment

High Level White Balance Adjustment

(1) Set the BRT and PICTURE controls fully clockwise.

(2) Adjust all the three (red, green and blue) DRIVE controls on the SC board for optimum white balance as shown in Fig. 3-17.

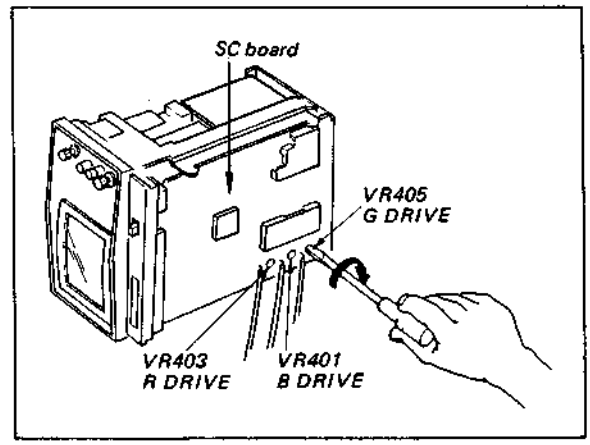


Fig. 3-17. Drive controls adjustment

(3) Confirm that optimum white balance is obtained at low level.

SECTION 4
CIRCUIT ADJUSTMENTS

Note:

(1) TEST EQUIPMENT REQUIRED

1. Oscilloscope
2. Voltmeter (VOM)
3. Color-bar/pattern generator

(2) CONTROL SETTING FOR CHECKS AND ADJUSTMENTS

Controls and switch should be set as follows when performing checks and adjustments.

PICTURE control
BRT control
COLOR control
HUE control
. . . . Set for best picture

VER control
. . . . Set for stable picture

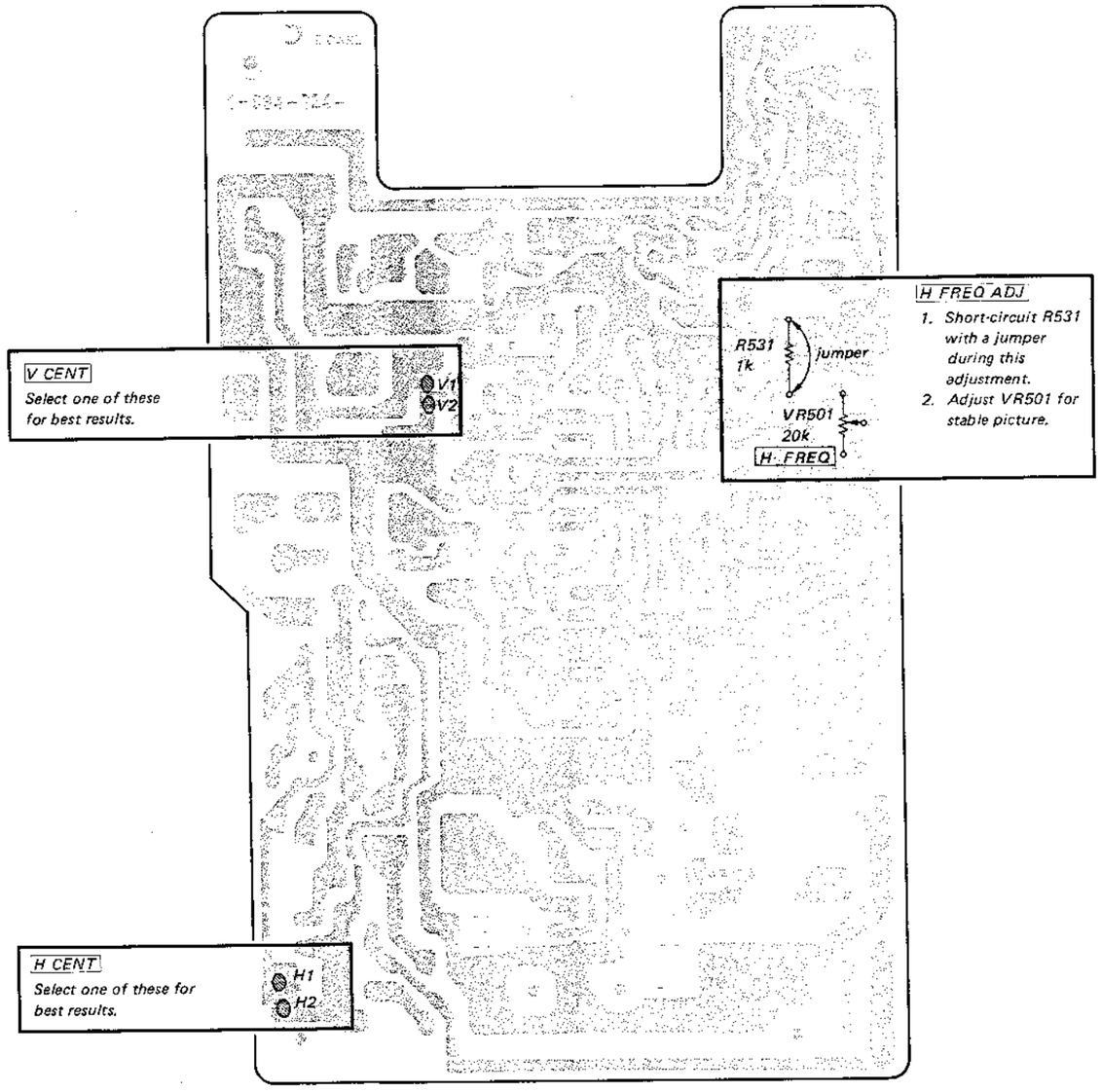
AUTO/AFT switch
. . . . ON

(3) RECEIVING SIGNAL

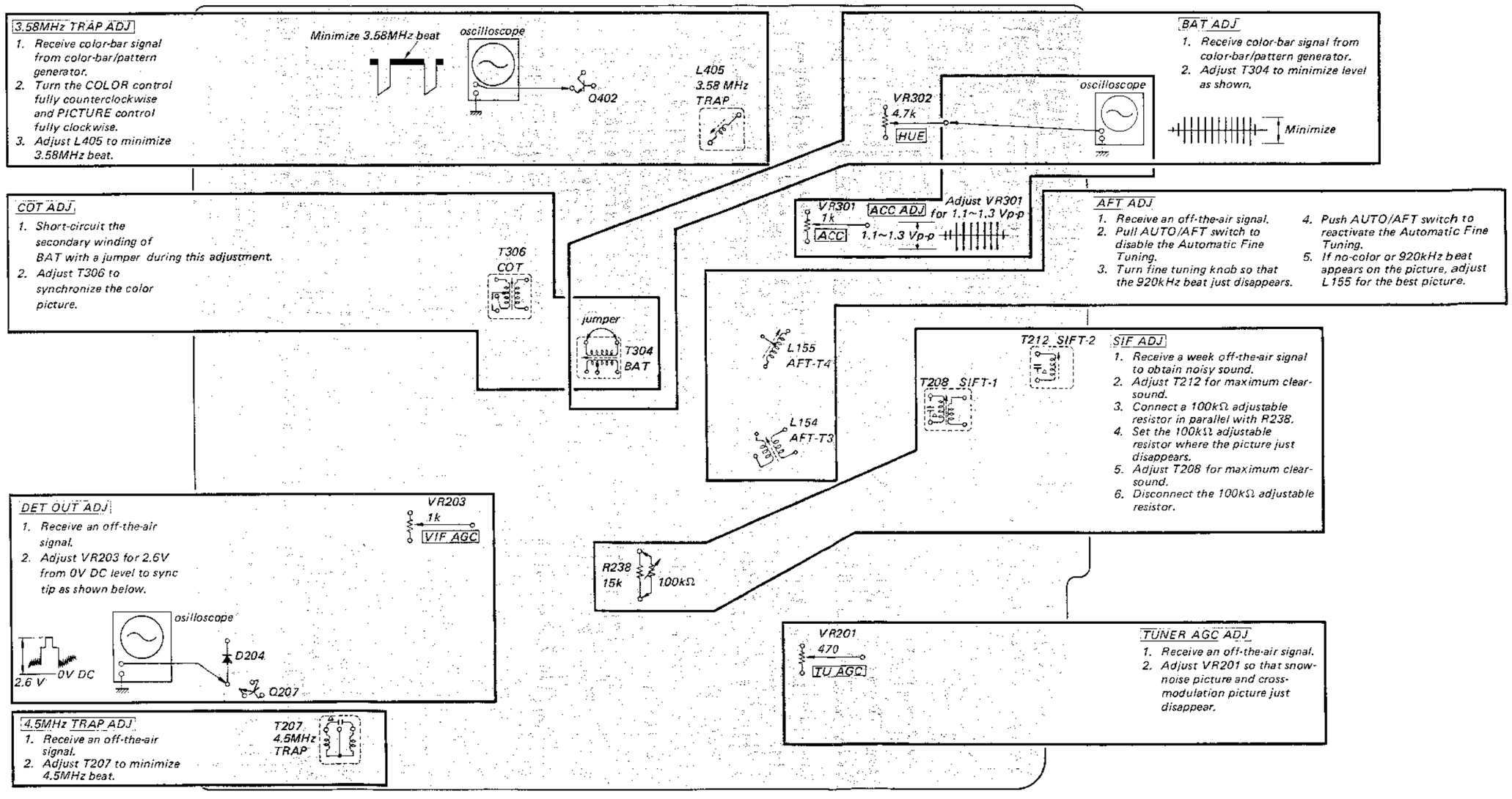
When performing these adjustments, receive any of a crosshatch signal, a color-bar signal or an off-the-air signal.

(4) TABLE OF CONTENTS FOR ADJUSTMENTS

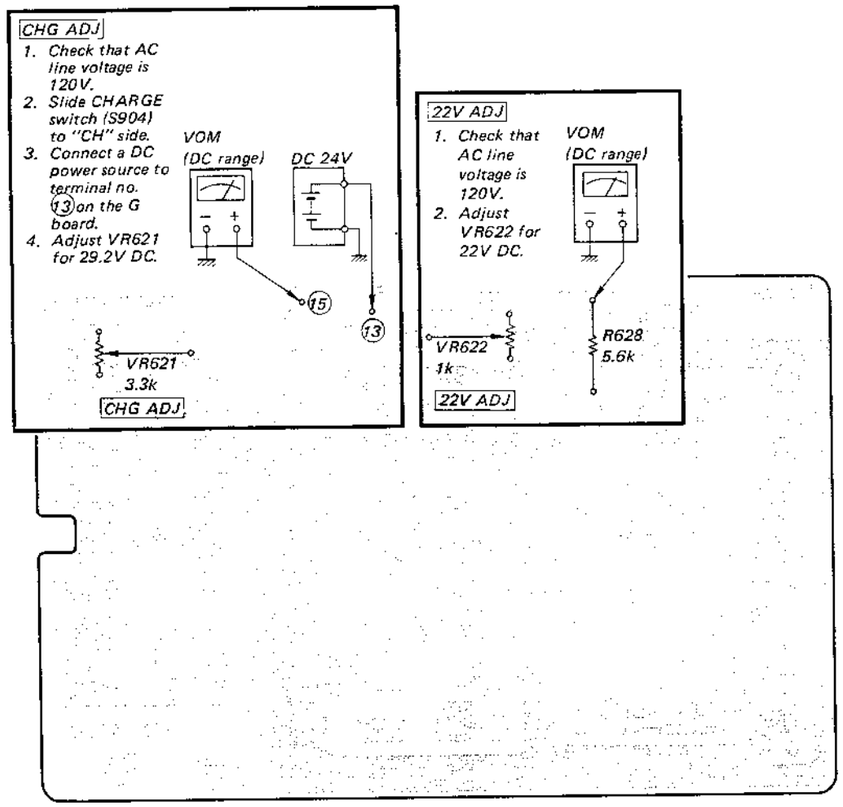
4-1. D BOARD ADJUSTMENTS



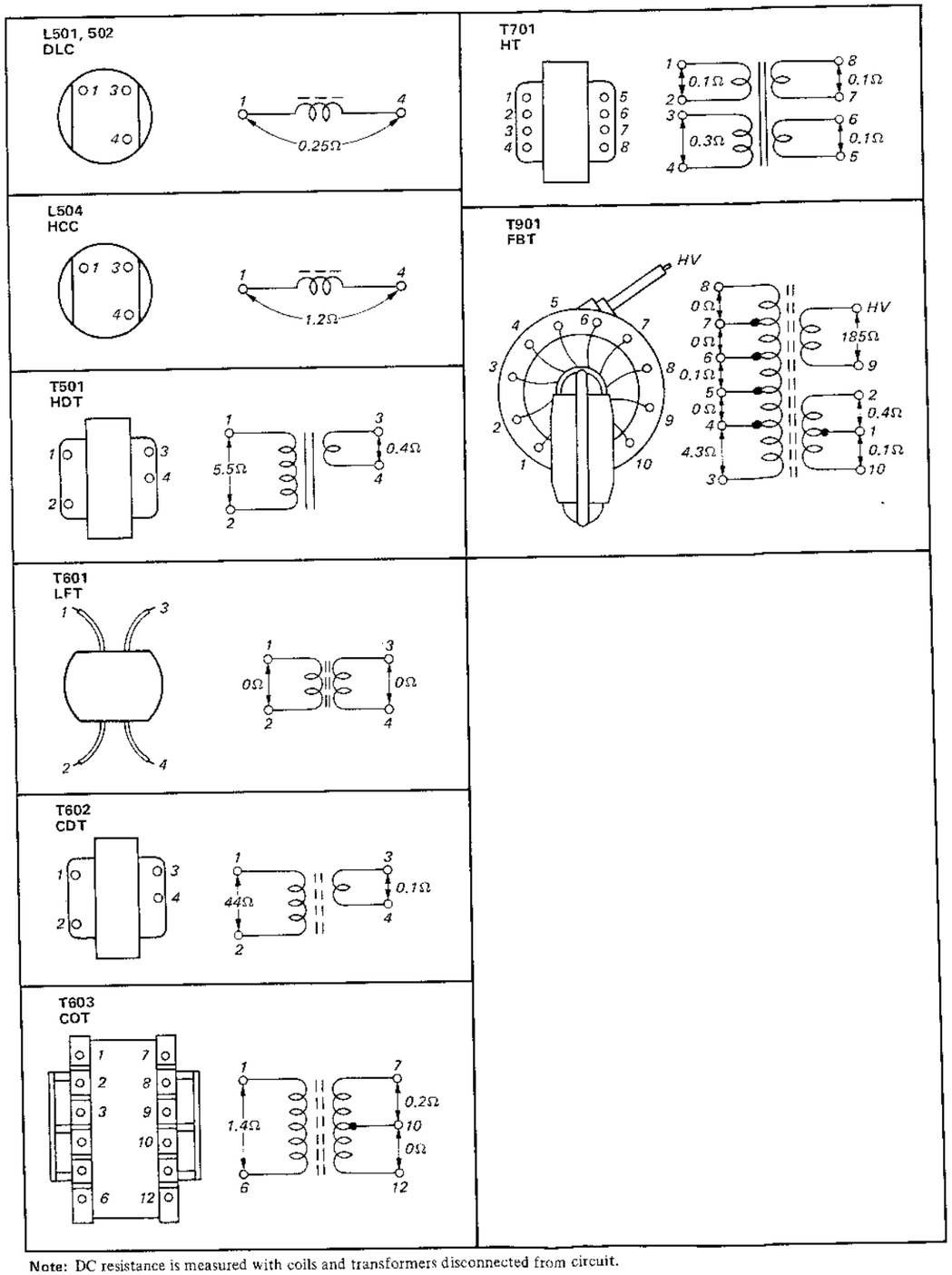
4-2. SC BOARD ADJUSTMENTS



4-3. G BOARD ADJUSTMENTS



5-1. DC RESISTANCE AND WINDING DIAGRAMS OF COILS AND TRANSFORMERS



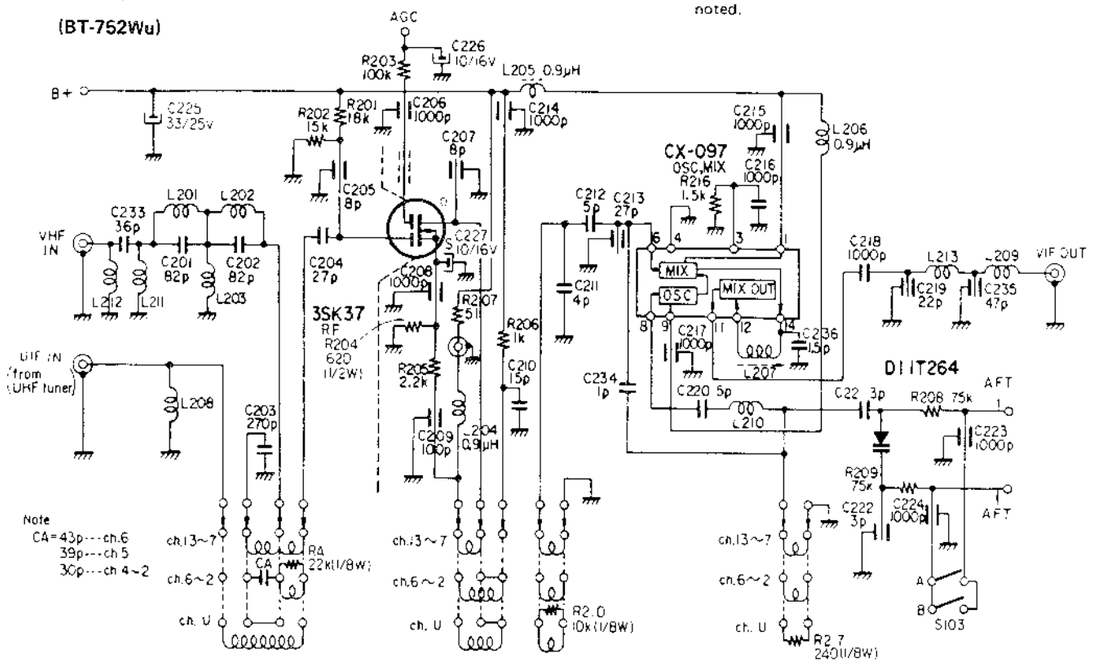
Note: DC resistance is measured with coils and transformers disconnected from circuit.

5-2. VHF AND UHF TUNER SCHEMATIC DIAGRAMS

Note: 1. Tuner reference numbers and values are not included in the Electrical Parts List (Page 37~43).
2. All resistors are ¼ W unless otherwise noted.

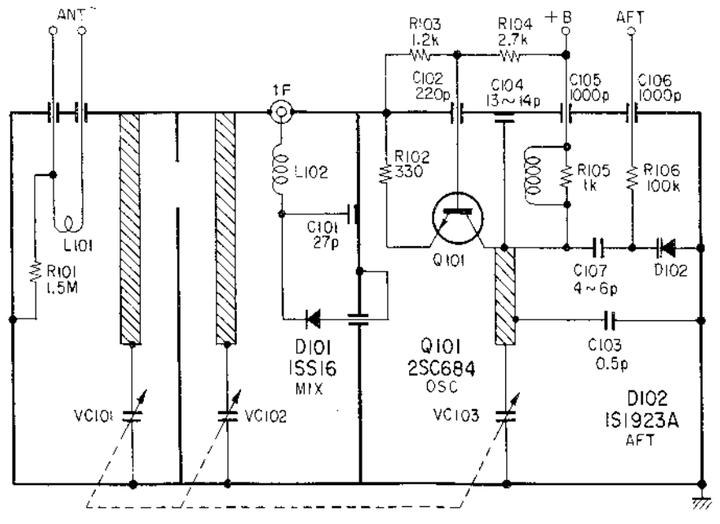
– VHF tuner –

(BT-752Wu)



– UHF tuner –

(BT-262)



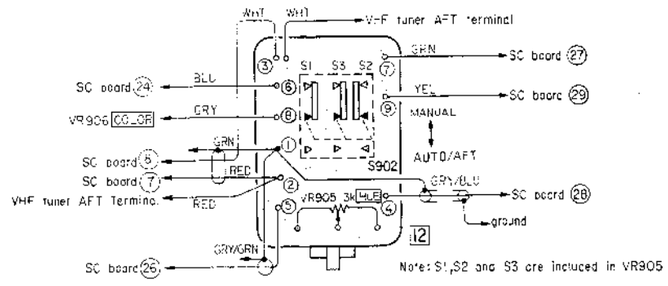
5-3. MOUNTING DIAGRAMS

Note: ●– indicates wire connection point on the conductor side.
○– indicates parts or wire connection point on the component side.
All mounting diagrams are conductor side view.
■ indicates parts on the conductor side.
-[VW]- indicates a nonflammable resistor.
All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

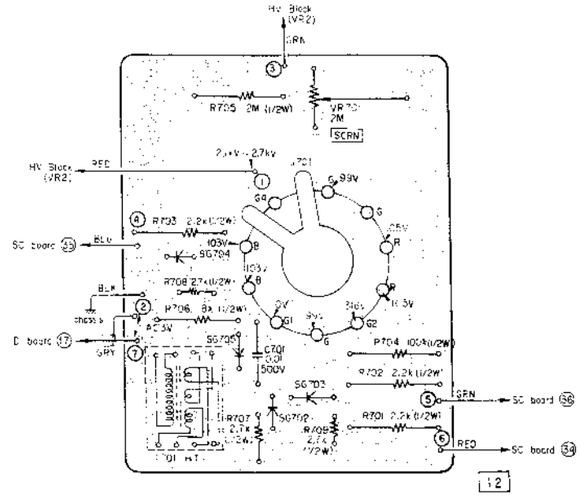
AUTO

T

– AUTO Board –

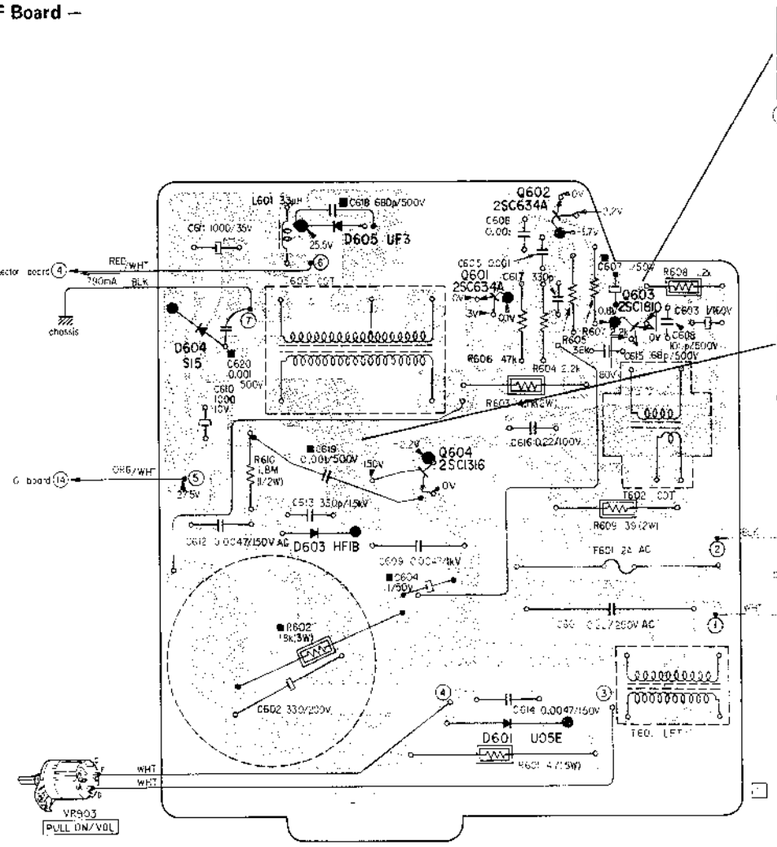


– T Board –



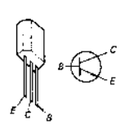
F

– F Board –

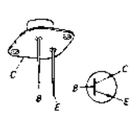


Q			604	601	602	603
D	604	603,605		601		

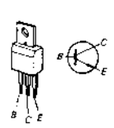
2SC634A



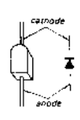
2SC1316



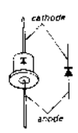
2SC1810



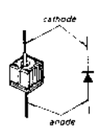
HF1B



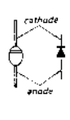
S15



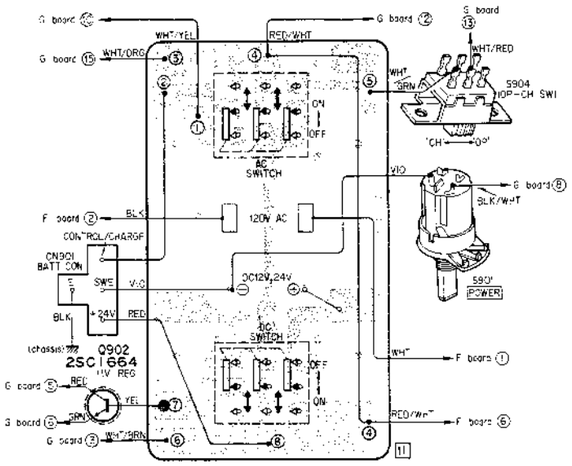
UF3



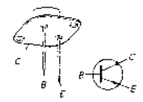
U05E



– CONNECTOR Board –

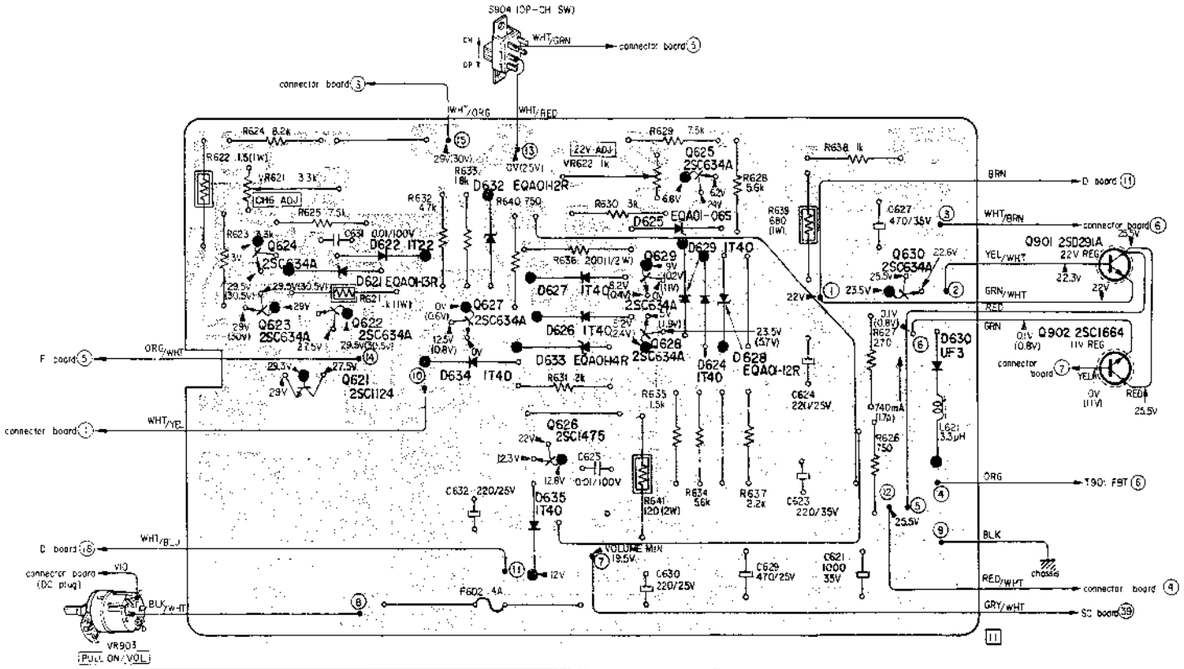


2SC1664



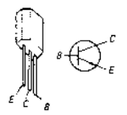
– G Board –

G G

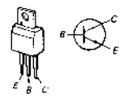


Q	623 624	621 622	627	626	628 629	625	630	
D		621 622	632 634	635	626 627	633 625 629	624 628	630
ADJ	VR621		VR622					

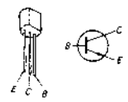
2SC634A



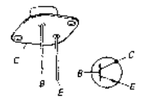
2SC1124



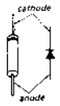
2SC1475



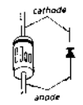
2SC1664
2SD291A



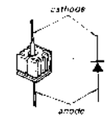
1T22
1T40



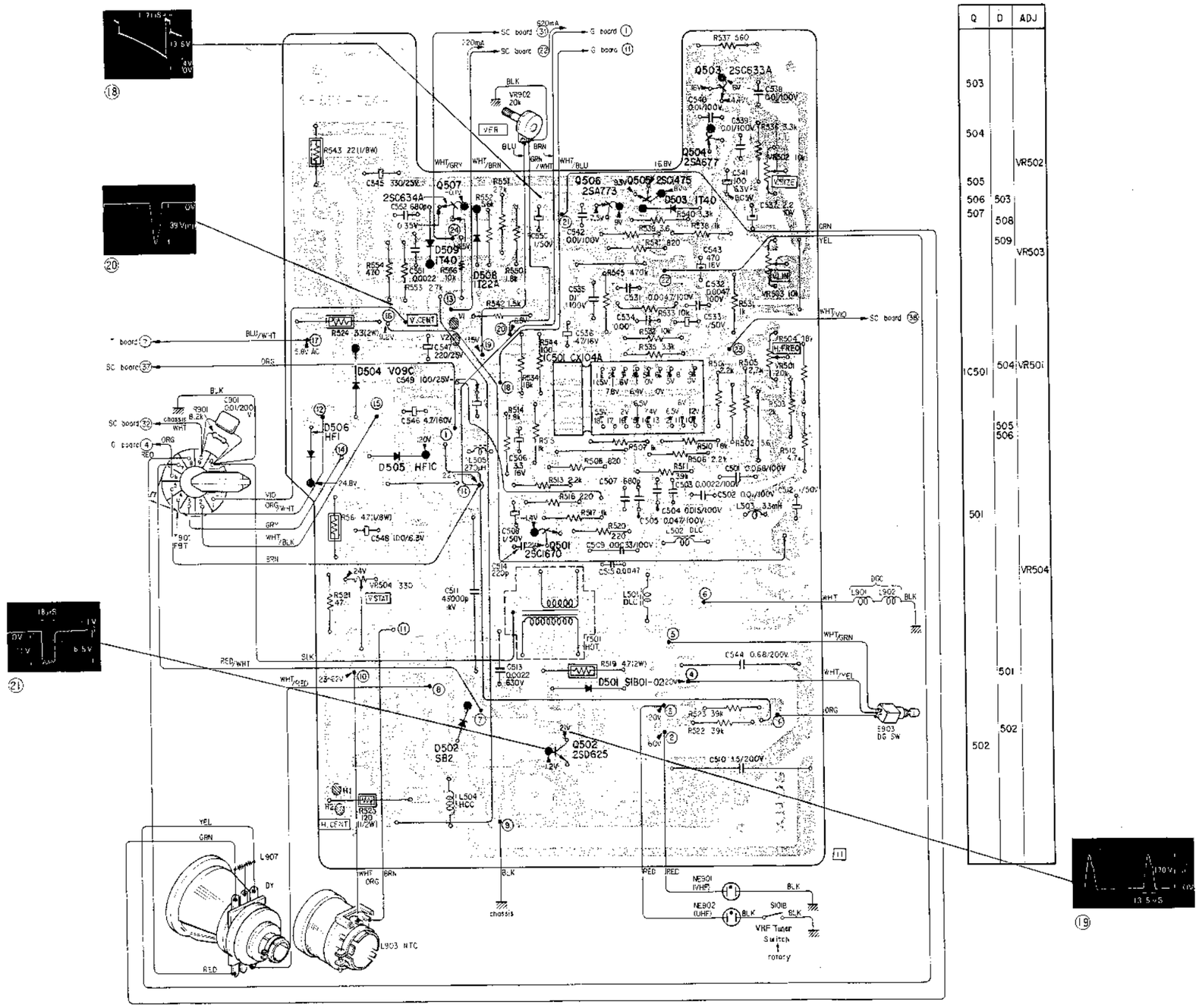
EQA01-06S
EQA01-12R
EQA01-13R
EQA01-14R



UF3

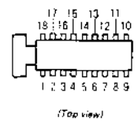


— D Board —

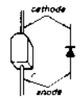


Q	D	ADJ
503		
504		VR502
505		
506	503	
507	508	
	509	VR503
IC501	504	VR501
	505	
	506	
501		
		VR504
	501	
	502	
502		

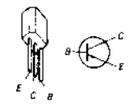
CX104



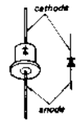
HF1
HF1C



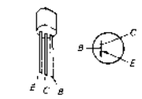
2SA677



SB2

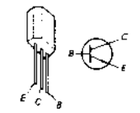


2SA773

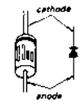


V09C

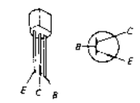
2SC633A
2SC634A



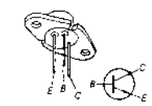
S1B01-02



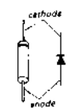
2SC1475
2SC1670



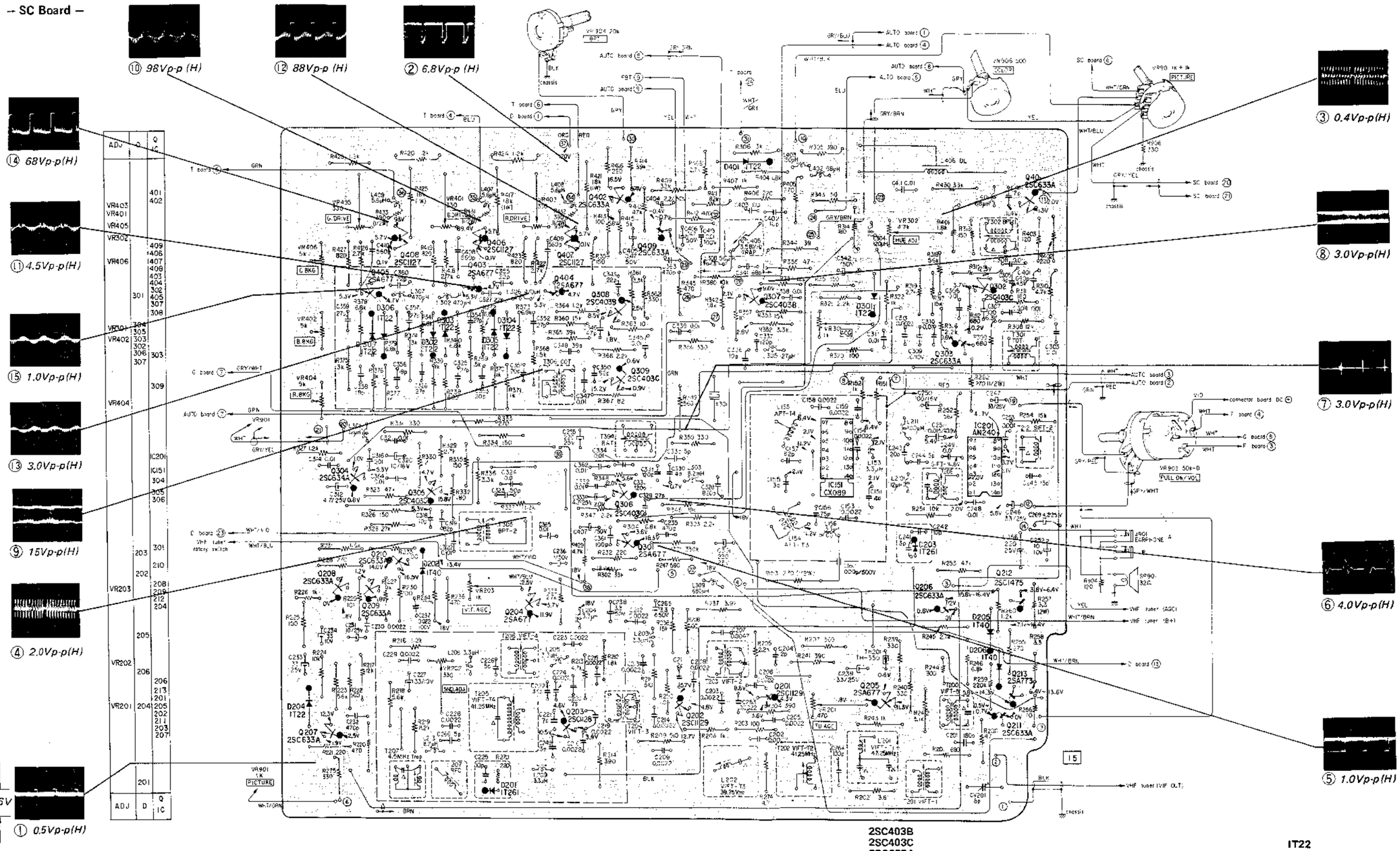
2SD625



1T22A
1T40



— SC Board —

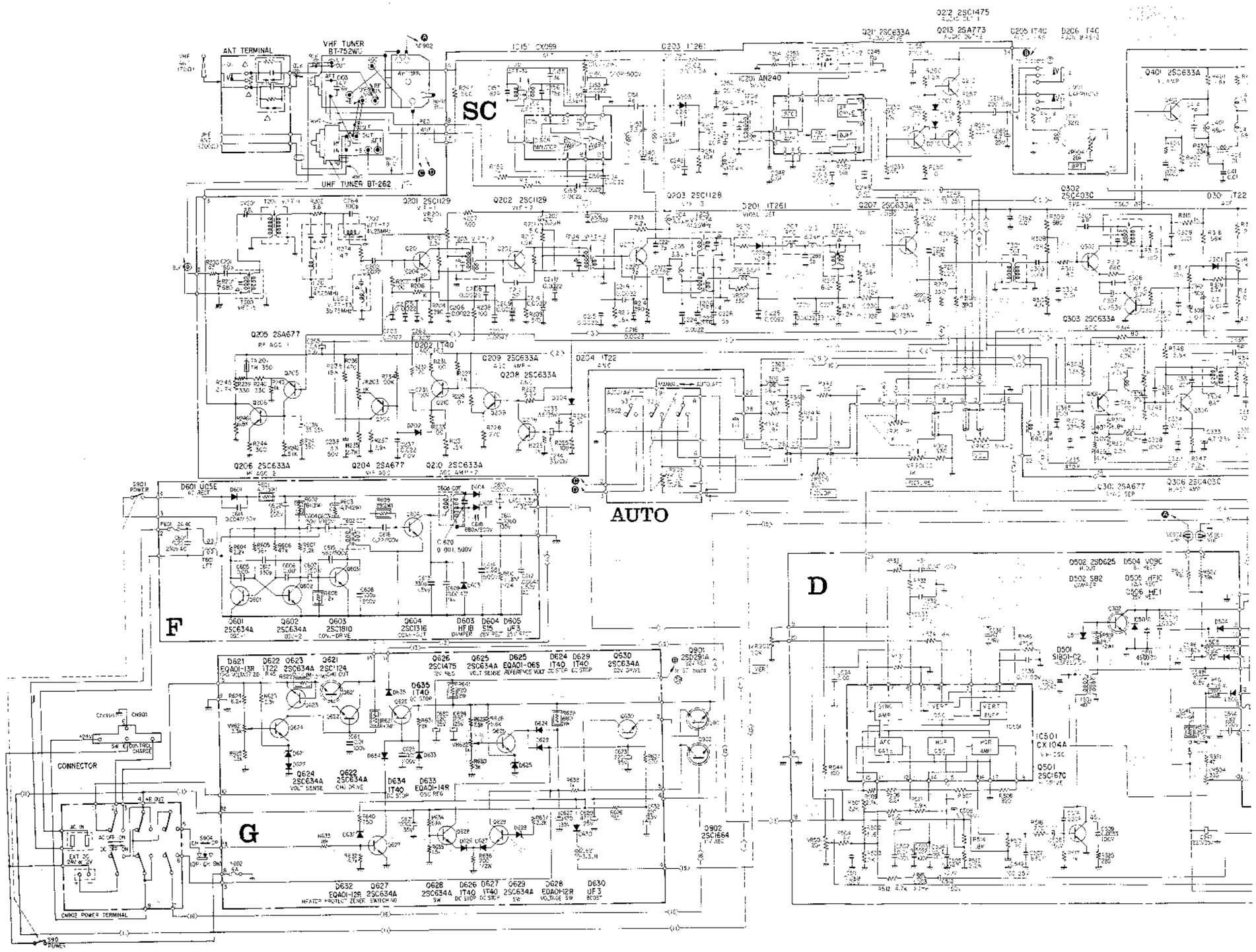

⑩ 98Vp-p (H)
⑫ 88Vp-p (H)
② 6.8Vp-p (H)
⑭ 68Vp-p(H)
⑪ 4.5Vp-p(H)
⑮ 1.0Vp-p(H)
⑬ 3.0Vp-p(H)
⑨ 15Vp-p(H)
④ 2.0Vp-p(H)
DC 2.6V
① 0.5Vp-p(H)
③ 0.4Vp-p(H)
⑧ 3.0Vp-p(H)
⑦ 3.0Vp-p(H)
⑥ 4.0Vp-p(H)
⑤ 1.0Vp-p(H)
ADJ
D
IC
VR403
VR401
VR405
VR302
VR406
VR301
VR402
VR404
VR203
VR202
VR201
IC201
IC151
Q401 2SC633A
Q402 2SC633A
Q406 2SC1127
Q407 2SC1127
Q408 2SC1127
Q403 2SA677
Q404 2SA677
Q405 2SA677
Q308 2SC403B
Q309 2SC403C
Q409 2SC633A
Q304 2SC634A
Q306 2SC403C
Q208 2SC633A
Q209 2SC633A
Q207 2SC633A
Q204 2SA677
Q301 2SA677
Q203 2SC1128
Q202 2SC1129
Q201 2SC1129
Q205 2SA677
Q302 2SC403C
Q303 2SC403B
Q212 2SC1475
Q206 2SC633A
Q213 2SA773
Q211 2SC633A
D401 IT22
D306 IT22
D304 IT22
D305 IT22
D303 IT22
D204 IT22
D201 IT261
D202 IT40
D205 IT40
D206 IT40
D301 IT22
T201 VIFT-4
T205 VIFT-T4
T207 4.5MHz Trap
T200 VIFT-T2
T202 VIFT-3
T203 VIFT-2
T204 VIFT-1
L155 APT-T4
L154 AFT-T3
L201 VIFT-T1
L202 VIFT-T3
IC201 AN240
IC151 CX089
VR304 20k
VR306 500
VR990 1k + 1k
VR309 47k
VR901 1k
VR903 50k-D
VR404 5k
VR405 5k
VR406 5k
VR402 5k
VR401 330
VR403 330
VR201 1k
VR202 1k
VR203 1k
VR204 1k
VR205 1k
VR206 1k
VR207 1k
VR208 1k
VR209 1k
VR210 1k
VR211 1k
VR212 1k
VR213 1k
VR214 1k
VR215 1k
VR216 1k
VR217 1k
VR218 5.6k
VR219 1k
VR220 470
VR221 1k
VR222 560
VR223 5.6k
VR224 10k
VR225 150
VR226 1k
VR227 330
VR228 1k
VR229 1k
VR230 1k
VR231 1k
VR232 220
VR233 330
VR234 33
VR235 150
VR236 330
VR237 1k
VR238 1k
VR239 33k
VR240 1k
VR241 1k
VR242 1k
VR243 1k
VR244 300
VR245 2.7k
VR246 6.8k
VR247 680
VR248 1k
VR249 1k
VR250 330
VR251 1k
VR252 2.7k 1/2W
VR253 2.7k 1/2W
VR254 15k
VR255 10k
VR256 47k
VR257 5.6
VR258 3.3
VR259 270
VR260 1.2k
VR261 220k
VR262 680
VR263 100
VR264 100
VR265 6.8k
VR266 47k
VR267 47k
VR268 47k
VR269 47k
VR270 47k
VR271 47k
VR272 47k
VR273 47k
VR274 47k
VR275 330
VR276 47k
VR277 47k
VR278 47k
VR279 47k
VR280 47k
VR281 47k
VR282 47k
VR283 47k
VR284 47k
VR285 47k
VR286 47k
VR287 47k
VR288 47k
VR289 47k
VR290 47k
VR291 47k
VR292 47k
VR293 47k
VR294 47k
VR295 47k

5-4. SCHEMATIC DIAGRAM

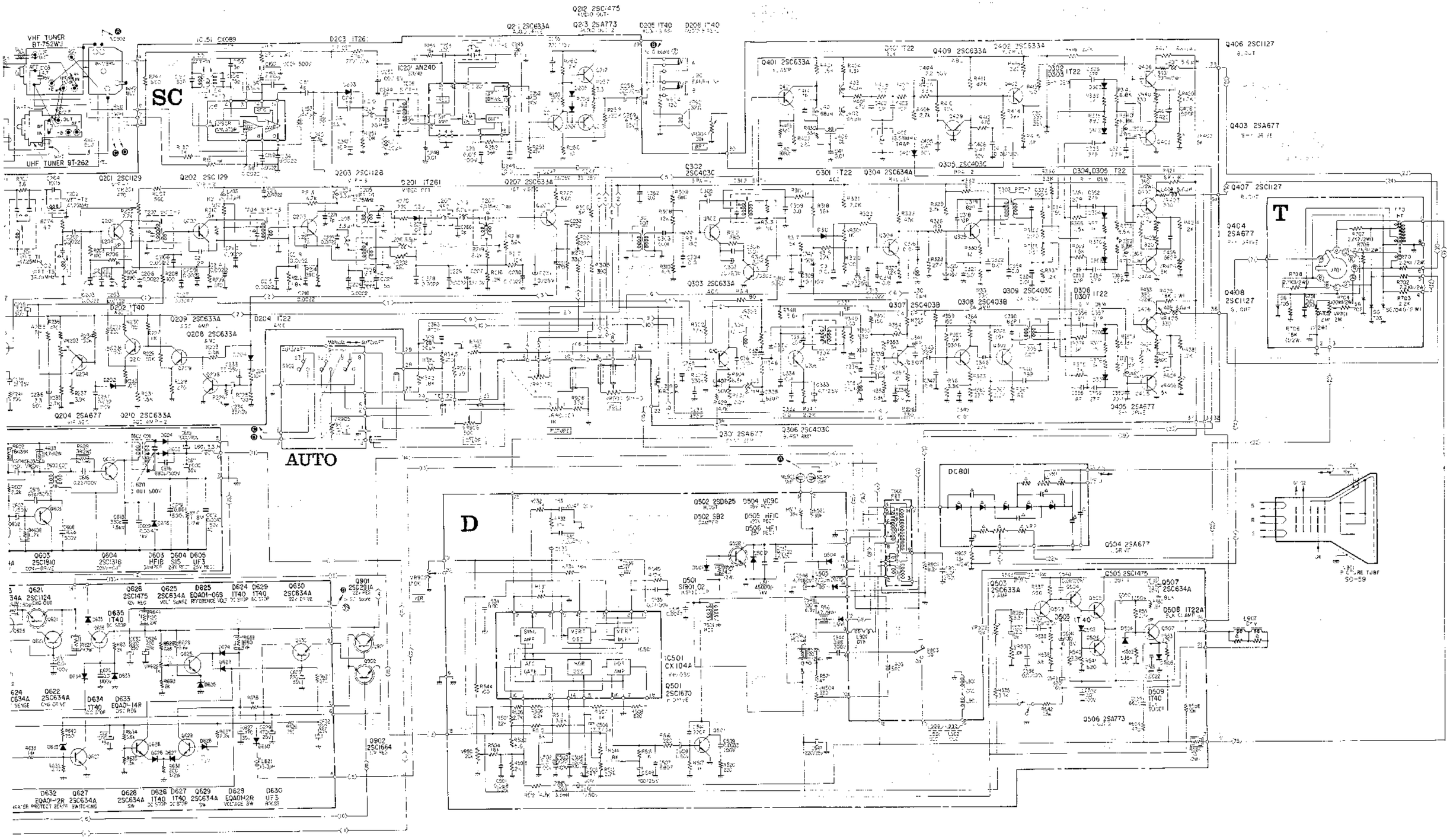
Note:

- All resistors are in ohms, ¼W unless otherwise noted.
  k = 1000 M = 1000k
- All capacitors are in μF unless otherwise noted.
  pF = μμF.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- △ indicates internal components.
- Voltages are DC with respect to ground unless otherwise noted. Readings are with a color-bar signal applied. Readings are taken with a 20,000-ohm-per-volt VOM.
- Voltages of ( ) in the G board are with 120V AC input and with S904 set to "CH" side.
- Voltages of < > in the G board are with 12V DC input.
- Voltages of Q601~Q604 in the F board are taken from the points to the emitter of Q604.
- Notice the pulse-width for the waveforms the peak-to-peak voltages of which are not indicated on the D and F boards.
- ⌇ indicates a nonflammable resistor.

Note: The shaded components are critical for safety.
Replace only with part number specified.



Note: The shaded components are critical for safety.
Replace only with part number specified.

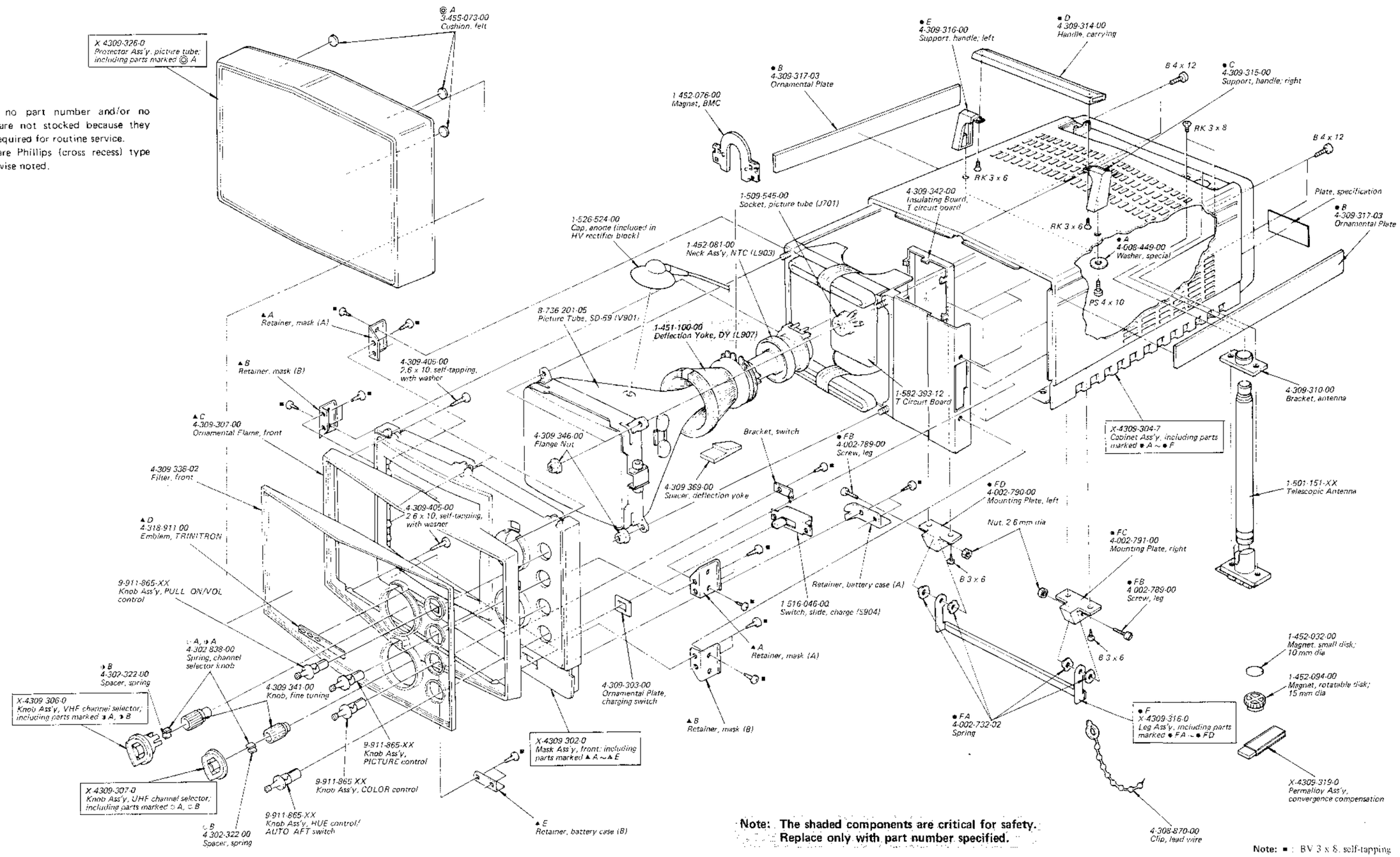


SECTION 6
EXPLODED VIEWS

(1)

(2)

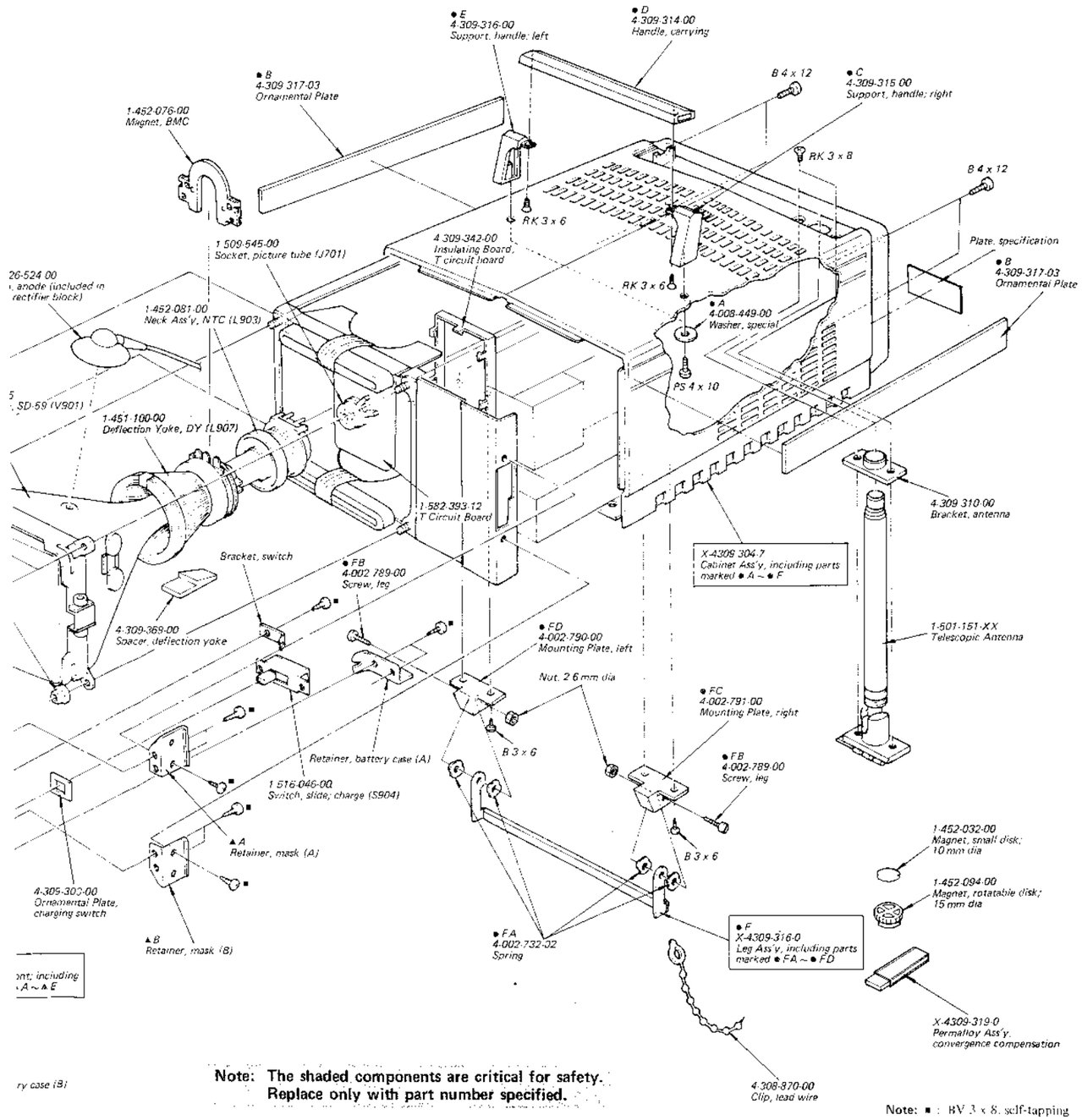
Note:
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.



Note: The shaded components are critical for safety. Replace only with part number specified.

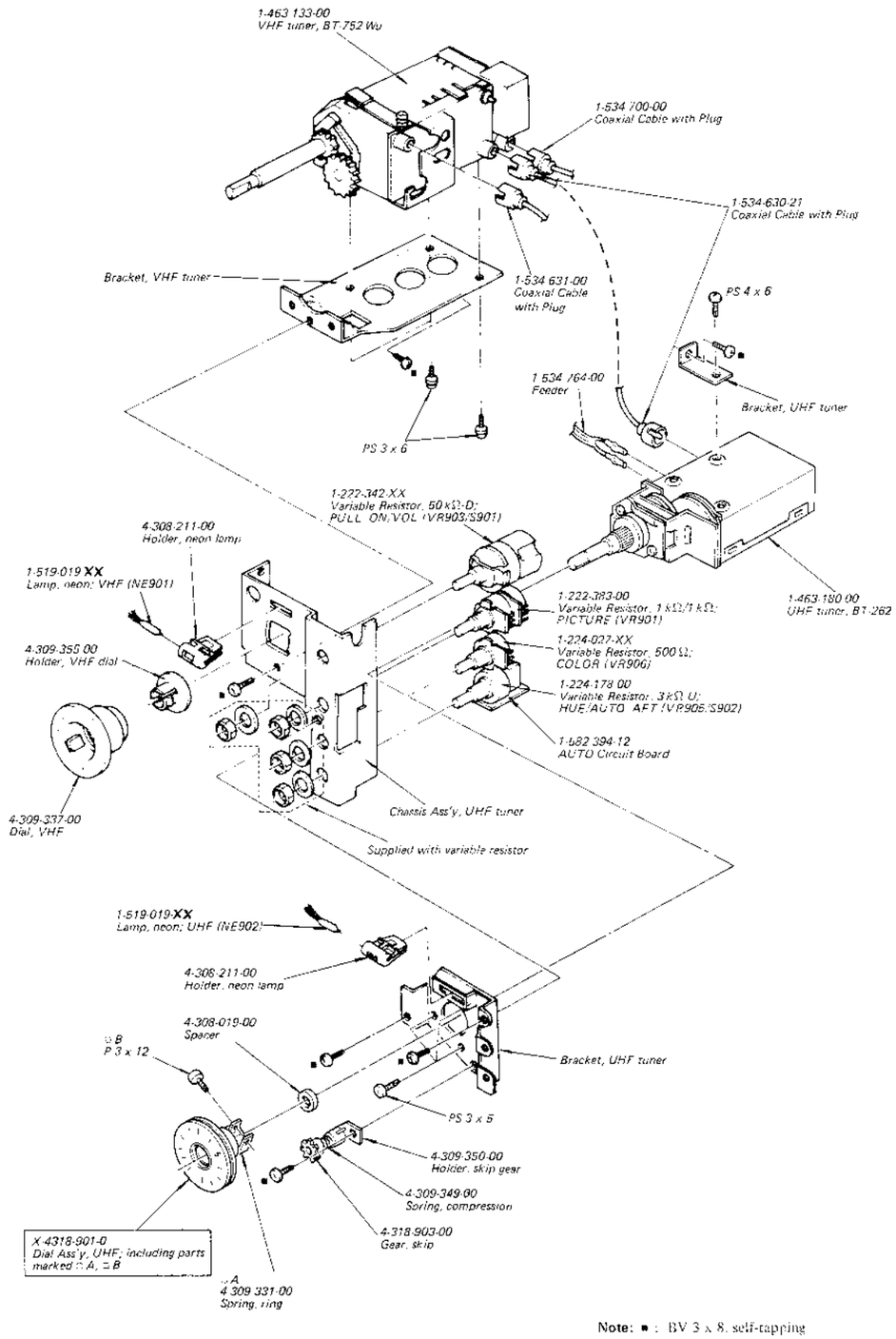
Note: ■ : BV 3 x 8, self-tapping

(2)



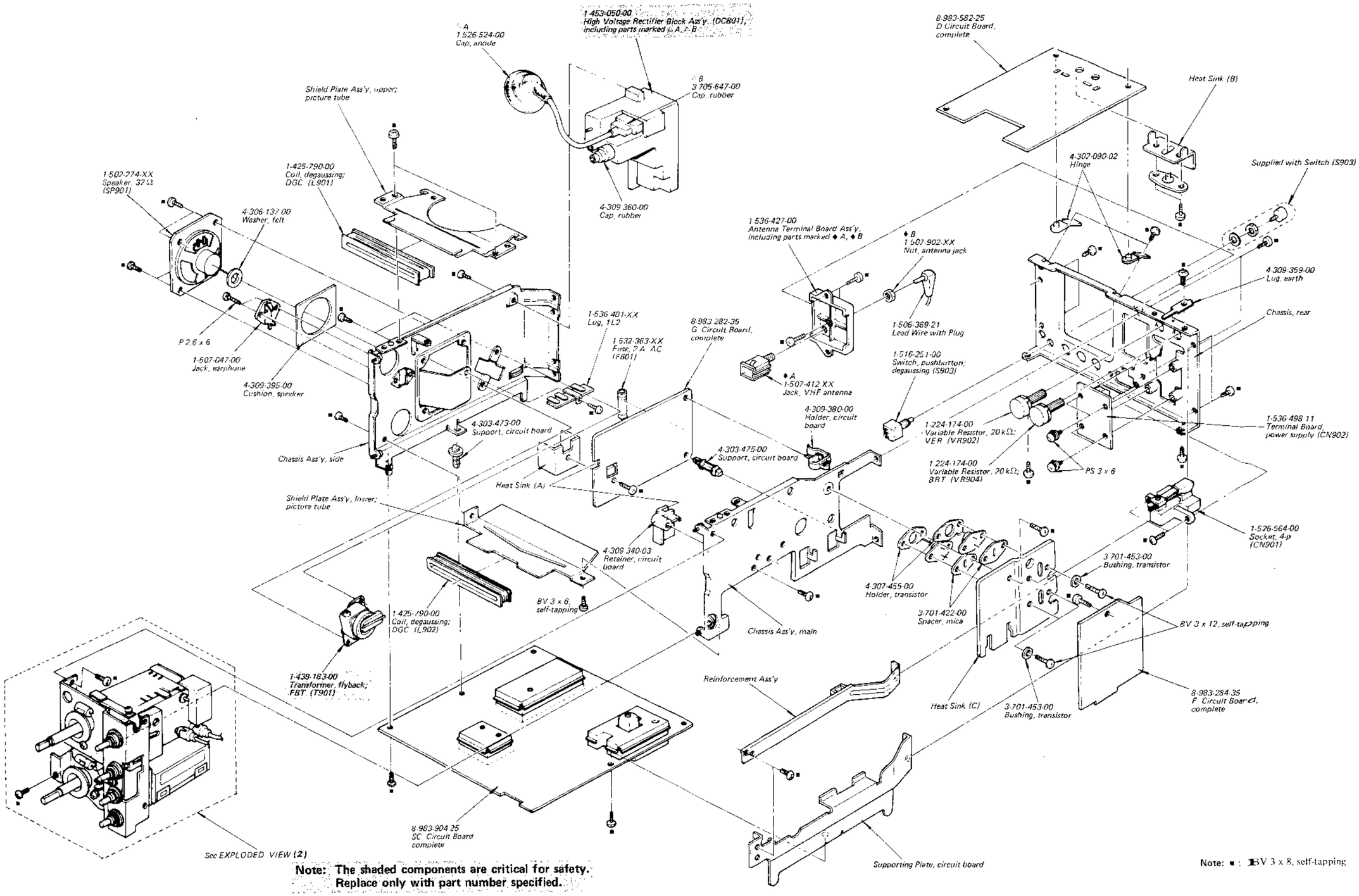
Note: The shaded components are critical for safety. Replace only with part number specified.

Note: ■ : BV 3 x 8, self-tapping



Note: ■ : BV 3 x 8, self-tapping

(3)



Note: The shaded components are critical for safety. Replace only with part number specified.

Note: ■ : BV 3 x 8, self-tapping

SECTION 7
ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description
		TUNERS AND CIRCUIT BOARDS
	1-463-133-00	VHF Tuner, BT-752Wu
	1-463-180-00	UHF Tuner, BT-262
	1-582-393-12	T Circuit Board
	1-582-394-12	AUTO Circuit Board
	8-983-282-35	G Circuit Board, complete
	8-983-284-35	F Circuit Board, complete
	8-983-582-25	D Circuit Board, complete
	8-983-904-25	SC Circuit Board, complete
		SMICONDUCTORS
		Transistors
Q201, 202		2SC1129
Q203		2SC1128
Q204, 205		2SA677
Q206~211		2SC633A
Q212		2SC1475
Q213		2SA773
Q301		2SA677
Q302		2SC403C
Q303		2SC633A
Q304		2SC634A
Q305, 306		2SC403C
Q307, 308		2SC403B
Q309		2SC403C
Q401, 402		2SC633A
Q403~405		2SA677
Q406~408		2SC1127
Q409		2SC633A
Q501		2SC1670
Q502		2SD625
Q503		2SC633A
Q504		2SA677
Q505		2SC1475
Q506		2SA773
Q507		2SC634A
Q601, 602		2SC634A
Q603		2SC1810
Q604		2SC1316
Q621		2SC1124
Q622~625		2SC634A
Q626		2SC1475
Q627~630		2SC634A
Q901		2SD291A
Q902		2SC1664
		Diodes
D201		1T261
D202		1T40
D203		1T261
D204		1T22
D205, 206		1T40
D301~307		1T22
D401		1T22
D501		SIB01-02
D502		SB2
D503		1T40
D504		V09C
D505		HF1C
D506		HF1
D508		1T22A
D509		1T40
D601		U05E
D603		HF1B
D604		S15
D605		UF3
D621		EQA01-13R
D622		1T22
D624		1T40
D625		EQA01-06S
D626, 627		1T40
D628		EQA01-12R
D629		1T40
D630		UF3
D632		EQA01-12R
D633		EQA01-14R
D634		1T40
D635		EQA01-12R
		ICs
IC151		CX089
IC201		AN240
IC501		CX104A
		Miscellaneous
Th201	1-800-071-XX	Thermistor, TH-350

Note: The shaded components are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description
		COILS
		All coils are microinductor unless otherwise noted.
L153	1-407-184-XX	3.3 μH
L154	1-403-731-00	AFT-T3
L155	1-403-732-00	AFT-T4
L156	1-407-184-XX	3.3 μH
L201	1-409-219-00	VIFT-T1, 47.25 MHz
L202	1-409-220-00	VIFT-T3, 39.75 MHz
L203~206	1-407-184-XX	3.3 μH
L207	1-425-504-00	RFC
L209	1-407-184-XX	3.3 μH
L210	1-407-158-XX	12 μH
L211	1-407-169-XX	100 μH
L213	1-407-189-XX	8.2 μH
L301	1-407-158-XX	12 μH
L302	1-407-661-XX	470 μH
L303	1-407-664-00	8.2 mH
L304	1-407-170-XX	120 μH
L305	1-407-162-XX	27 μH
L306, 307	1-407-661-XX	470 μH
L308	1-407-166-XX	56 μH
L309	1-407-193-XX	680 μH
L401, 402	1-407-167-XX	68 μH
L403	1-407-171-XX	150 μH
L405	1-409-193-00	3.58 MHz Trap
L406	1-415-034-00	Delay Line
L407~409	1-407-187-XX	5.6 μH
L501, 502	1-459-110-00	DLC
L503	1-407-200-XX	3.3 mH
L504	1-459-109-00	Horizontal Centering, HCC
L505	1-407-174-XX	270 μH
L601	1-407-364-00	3.3 μH
L621	1-407-184-XX	3.3 μH
L901, 902	1-425-790-00	Degaussing, DGC
L903	1-452-081-00	Neck Ass'y, NTC
L907	1-451-100-00	Deflection Yoke, DY
		TRANSFORMERS
T200	1-403-971-00	VIFT-5
T201	1-403-971-00	VIFT-1
T202	1-409-213-00	VIFT-T2, 41.25 MHz
T203	1-403-550-00	VIFT-2
T204	1-403-550-00	VIFT-3
T205	1-409-174-00	VIFT-T4, 41.25 MHz
T206	1-403-524-00	VIFT-4
T207	1-409-146-00	4.5 MHz Trap
T208	1-403-866-00	SIFT-1
T212	1-403-871-00	SIFT-2
T301	1-425-670-00	Take-off, TOT
T302	1-425-619-00	1st Band-pass, BPT-1
T303	1-425-506-00	2nd Band-pass, BPT-2
T304	1-405-372-00	Burst Amplifier, BAT
T306	1-425-618-00	C-w Oscillation, COT
T501	1-437-062-00	Horizontal Drive, HDT
T601	1-421-225-00	Line Filter, LFT
T602	1-437-030-00	Chopper Drive, CDT
T603	1-442-594-21	C-w Oscillation, COT

Note: The shaded components are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description
T701	1-442-071-00	Heater, HT
T901	1-439-183-00	Flyback, FBT

CAPACITORS

All capacitors are in μF and ceramic type unless otherwise noted. 50V or less working voltages are omitted except for electrolytic type. pF = μμF, elect = electrolytic

C103	1-121-257-11	4.7	16V	elect
C151	1-102-937-11	4 p		
C153, 154	1-102-121-11	0.0022		
C155	1-102-936-11	3 p		
C156	1-102-526-11	75 p		
C157	1-102-496-11	82 p		
C158, 159	1-102-121-11	0.0022		
C160	1-102-043-11	1000 p	500 V	feed through
C201	1-102-976-11	180 p		
C202, 203	1-101-002-11	0.0022		
C204	1-102-935-11	2 p		
C205, 206	1-101-002-11	0.0022		
C207	1-102-125-11	0.0047		
C208, 209	1-101-002-11	0.0022		
C211	1-102-935-11	2 p		
C212~216, C219	1-101-002-11	0.0022		
C220	1-102-944-11	7 p		
C221	1-102-662-11	7 p		
C222	1-102-963-11	33 p		
C223, 224	1-101-002-11	0.0022		
C225	1-102-947-11	10 p		
C226	1-102-851-11	5 p		
C227	1-121-402-11	33	10 V	elect
C228~230	1-101-002-11	0.0022		
C231	1-121-389-11	10	25 V	elect
C232	1-102-824-11	470 p		
C233	1-121-404-11	33	25 V	elect
C234	1-121-402-11	33	10 V	elect
C235	1-102-824-11	470 p		
C236	1-121-391-11	1	50 V	elect
C237	1-108-630-12	0.022	100 V	mylar
C238	1-121-393-11	3.3	50 V	elect
C239	1-121-404-11	33	25 V	elect
C240, 241	1-102-936-11	3 p		
C242	1-102-947-11	10 p		
C243	1-102-958-11	20 p		
C244	1-102-942-11	5 p		
C245	1-102-668-11	15 p		
C246, 247	1-121-404-11	33	25 V	elect
C248, 249	1-101-004-11	0.01		
C250	1-121-415-11	100	16 V	elect
C251	1-108-628-12	0.015	100 V	mylar
C252	1-121-651-11	10	16 V	elect
C253	1-102-074-11	0.001		
C255, 256	1-121-422-11	220	25 V	elect
C263	1-101-002-11	0.0022		
C264	1-102-529-11	100 p		
C265	1-121-393-11	3.3	50 V	elect
C266	1-102-942-11	5 p		
C269	1-121-395-11	4.7	25 V	elect
C301	1-121-422-11	220	25 V	elect
C303, 304	1-101-004-11	0.01		
C305	1-102-937-11	4 p		
C306	1-101-004-11	0.01		
C307	1-121-413-11	100	6.3V	elect
C308	1-101-004-11	0.01		
C309	1-121-651-11	10	16 V	elect
C310, 311	1-101-004-11	0.01		
C312	1-121-395-11	4.7	25 V	elect
C313	1-101-002-11	0.0022		
C314, 316	1-101-004-11	0.01		
C318	1-102-947-11	10 p		
C319	1-102-863-11	82 p		
C320	1-121-651-11	10	16 V	elect
C321, 322	1-101-004-11	0.01		

Note: The shaded components are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description		
C323	1-102-888-11	150 p		
C324	1-101-004-11	0.01		
C325, 326	1-102-961-11	27 p		
C327	1-102-959-11	22 p		
C328	1-102-117-11	820 p		
C329	1-102-961-11	27 p		
C330	1-102-937-11	4 p		
C331	1-102-765-11	120 p		
C332	1-101-004-11	0.01		
C333	1-121-395-11	4.7	25 V	elect
C334	1-101-004-11	0.01		
C335	1-102-942-11	5 p		
C336	1-102-858-11	10 p		
C337	1-102-816-11	120 p		
C338, 339	1-101-004-11	0.01		
C341	1-101-888-11	68 p		
C342	1-121-391-11	1	50 V	elect
C343	1-102-959-11	22 p		
C345	1-101-004-11	0.01		
C346	1-101-880-11	47 p		
C347	1-101-004-11	0.01		
C348	1-102-965-11	39 p		
C350	1-102-886-11	82 p		
C351	1-102-958-11	20 p		
C352	1-102-961-11	27 p		
C353	1-102-958-11	20 p		
C354	1-102-961-11	27 p		
C355	1-102-959-11	22 p		
C356	1-102-953-11	18 p		
C357	1-102-961-11	27 p		
C358	1-102-953-11	18 p		
C359	1-102-961-11	27 p		
C360	1-102-959-11	22 p		
C361	1-102-973-11	100 p		
C362	1-101-004-11	0.01		
C363	1-102-824-11	470 p		
C364, 365	1-101-004-11	0.01		
C401	1-102-116-11	680 p		
C402, 403	1-102-858-11	10 p		
C404	1-121-450-11	2.2	50 V	elect
C405, 406	1-121-727-11	0.47	50 V	elect
C407	1-121-391-11	1	50 V	elect
C408~410	1-102-115-11	560 p		
C411	1-101-004-11	0.01		
C413	1-108-692-12	0.01	100 V	mylar
C414	1-102-944-11	7 p		
C501	1-108-636-12	0.068	100 V	mylar
C502	1-108-626-12	0.01	100 V	mylar
C503	1-108-618-12	0.0022	100 V	mylar
C504	1-129-927-11	0.015	100 V	polyethylene
C505	1-108-634-12	0.047	100 V	mylar
C506	1-131-246-11	3.3	16 V	tantalum
C507	1-102-116-11	680 p		
C508	1-121-952-11	1	50 V	elect
C509	1-108-620-12	0.0033	100 V	mylar
C511	1-130-057-11	45,000 p	1 kV	polyethylene
C512	1-121-952-11	1	50 V	elect
C513	1-129-706-11	0.0022	630 V	polyethylene
C514	1-102-978-11	220 p		
C515	1-101-003-11	0.0047		
C531, 532	1-108-622-12	0.0047	100 V	mylar
C533	1-121-952-11	1	50 V	elect
C534	1-102-074-11	0.001		
C535	1-108-638-12	0.1	100 V	mylar
C536	1-121-409-11	47	16 V	elect
C537	1-127-024-11	2.2	10 V	solid aluminum
C538~540	1-108-626-12	0.01	100 V	mylar
C541	1-121-413-11	100	6.3 V	elect
C542	1-108-626-12	0.01	100 V	mylar
C543	1-121-426-11	470	16 V	elect
C544	1-108-549-11	0.68	200 V	mylar
C545	1-121-654-11	330	25 V	elect
C546	1-121-246-11	4.7	160 V	elect
C547	1-121-422-11	220	25 V	elect
C548	1-121-413-11	100	6.3 V	elect
C549	1-121-416-11	100	25 V	elect

Note: The shaded component is critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description		
C550	1-121-952-11	1	50 V	elect
C551	1-102-121-11	0.0022		
C552	1-102-116-11	680 p		
C601	1-108-745-12	0.22	250 V AC	mylar
C602	1-123-113-11	330	200 V	elect
C603	1-121-189-11	1	160 V	elect
C604	1-121-391-11	1	50 V	elect
C605, 606	1-108-792-12	0.001	50 V	mylar
C607	1-121-391-11	1	50 V	elect
C608	1-101-810-11	100 p	500 V	
C609	1-129-903-11	0.0047	1 kV	polyethylene
C610	1-121-736-11	1000	10 V	elect
C611	1-121-388-11	1000	35 V	elect
C612	1-102-189-11	0.0047	150 V AC	
C613	1-102-327-11	330 p	1.5 kV	
C614	1-102-189-11	0.0047	150 V	
C615	1-102-989-11	68 p	500 V	
C616	1-108-642-12	0.22	100 V	mylar
C617	1-102-112-11	330 p		
C618	1-102-002-11	680 p	500 V	
C619, 620	1-102-038-11	0.001	500 V	
C621	1-121-388-11	1000	35 V	elect
C623	1-121-261-11	220	35 V	elect
C624	1-121-422-11	220	25 V	elect
C625	1-105-713-12	0.01	100 V	mylar
C627	1-121-361-11	470	35 V	elect
C629	1-121-733-11	470	25V	elect
C630	1-121-422-11	220	25 V	elect
C631	1-105-713-12	0.01	100 V	mylar
C632	1-121-422-11	220	25 V	elect
C701	1-102-050-11	0.01	500 V	
C901	1-108-692-11	0.01	200 V	mylar
CV201	1-141-138-XX	8 p	trimmer	

Ref. No.	Part No.	Description		

RESISTORS

All resistors are in ohms. Regular-type ¼W carbon and composition resistors are omitted. Check schematic diagram for resistance values. All adjustable and variable resistors have characteristic curve B, unless otherwise noted. k = 1000, M = 1000 k

R153	1-244-859-11	270	½ W	carbon
R262	1-244-859-11	270	½ W	carbon
R417, R421, R425	1-206-107-11	18 k	1 W	metal oxide
R431~433	1-202-563-11	390±5%	½ W	composition
R519	1-206-455-11	4.7	2 W	metal oxide (nonflammable)
R524	1-206-475-11	33	2 W	metal oxide (nonflammable)
R525	1-244-851-11	120	½ W	carbon (nonflammable)
R543	1-211-417-11	22	1/8 W	carbon (nonflammable)
R561	1-211-401-11	4.7	1/8 W	carbon (nonflammable)
R601	1-217-062-11	4.7	5 W	wirewound (nonflammable)
R602	1-206-755-11	18 k	3 W	metal oxide (nonflammable)
R603	1-206-680-11	4.7 k	2 W	metal oxide (nonflammable)
R608	1-211-940-11	1.2 k	¼ W	carbon (nonflammable)
R609	1-206-477-11	39	2 W	metal oxide (nonflammable)
R610	1-202-651-11	1.8M	½ W	composition
R621	1-213-143-11	1 k	1 W	metal oxide (nonflammable)
R622	1-212-362-11	1.5	1 W	metal oxide (nonflammable)
R629	1-244-694-11	7.5 k	¼ W	carbon
R630	1-244-684-11	3 k	¼ W	carbon
R636	1-244-856-11	2000	½ W	carbon
R639	1-213-141-11	680	1 W	metal oxide (nonflammable)
R641	1-206-642-11	120	2 W	metal oxide (nonflammable)

Note: The shaded components are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description
R701~703	1-202-581-11	2.2 k±5% ½ W composition
R704	1-202-621-11	100 k±5% ½ W composition
R705	1-202-652-11	2 M±5% ½ W composition
R706	1-202-603-11	18 k±5% ½ W composition
R707~709	1-202-583-11	2.7 k±5% ½ W composition
R902	1-202-601-11	15 k±5% ½ W composition
VR201	1-224-641-XX	470, adjustable; TU AGC
VR202	1-224-640-XX	330, adjustable; SND ADJ
VR203	1-224-642-XX	1 k, adjustable; VIF AGC
VR301	1-224-642-XX	1 k, adjustable, ACC
VR302	1-224-644-XX	4.7 k, adjustable, HUE ADJ
VR401	1-224-640-XX	330, adjustable; B. DRIVE
VR402	1-222-716-XX	5 k, adjustable; B. BKG
VR403	1-224-640-XX	330, adjustable; R. DRIVE
VR404	1-222-716-XX	5 k, adjustable; R. BKG
VR405	1-224-640-XX	330, adjustable; G. DRIVE
VR406	1-222-716-XX	5 k, adjustable; G. BKG
VR501	1-224-177-XX	20 k, adjustable; H. FREQ
VR502	1-224-176-00	10 k, adjustable; V. SIZE
VR503	1-224-176-00	10 k, adjustable; V. LIN
VR504	1-224-640-XX	330, adjustable; V. STAT
VR621	1-224-644-XX	3.3k, adjustable; CHG ADJ
VR622	1-224-642-XX	1 k, adjustable; 22 V ADJ
VR701	1-224-173-00	2M, adjustable; SCRN
VR901	1-222-383-00	1 k/1 k, variable; PICTURE
VR902	1-224-174-00	20 k, variable; VER
VR903, S901	1-222-342-XX	50 k-D, variable; PULL ON/VOL
VR904	1-224-174-00	20 k, variable; BRT
VR905, S902	1-224-178-00	3k-U, variable; HUE/AUTO AFT
VR906	1-224-027-XX	500, variable; COLOR

MISCELLANEOUS

CN901	1-526-564-00	Socket, 4-p
CN902	1-536-498-11	Terminal Board, power supply

Ref. No.	Part No.	Description
DC801	1-453-050-00	High Voltage Rectifier Block Ass'y
	including,	
	1-526-524-00	Cap, anode
	3-705-647-00	Cap, rubber
F601	1-532-363-XX	Fuse, 2A AC
F602	1-532-318-XX	Fuse, 4A
J701	1-509-545-00	Socket, picture tube
J901	1-507-047-00	Jack, earphone
NE901	1-519-019-XX	Lamp, neon; VHF
NE902	1-519-019-XX	Lamp, neon; UHF
S903	1-516-251-00	Switch, pushbutton; degaussing
S904	1-516-046-00	Switch, slide; charge
SG702~705	1-519-063-XX	Spark Gap, 1.5 kV
SP901	1-502-274-XX	Speaker, 32 Ω
V901	8-736-201-05	Picture Tube, SD-59
X301	1-527-154-00	Crystal
	1-452-032-00	Magnet, small disk; 10 mm dia
	1-452-076-00	Magnet, BMC
	1-452-094-00	Magnet, ratatable disk; 15 mm dia.
	1-501-151-00	Telescopic Antenna
	1-506-369-21	Lead Wire with Plug
	1-507-412-XX	Jack, VHF antenna (included in Antenna Terminal Board Ass'y)
	1-507-902-XX	Nut, antenna jack (included in Antenna Terminal Board Ass'y)
	1-526-524-00	Cap, anode (included in HV Rectifier Block Ass'y)
	1-534-630-21	Coaxial Cable with Plug
	1-534-631-00	Coaxial Cable with Plug
	1-534-700-00	Coaxial Cable with Plug
	1-534-764-00	Feeder
	1-536-401-XX	Lug, 1L2

Note: The shaded components are critical for safety. Replace only with part number specified.

Ref. No.	*Part No.*	*Description*
	1-536-427-00	Antenna Terminal Board Ass'y
	including;	
	1-507-412-XX	Jack, VHF antenna
	1-507-902-XX	Nut, antenna jack

PACKING MATERIALS AND ACCESSORIES

Part No.	*Description*
X-3701-031-5	Card Ass'y, warranty
Y-2063-103-0	Loop Antenna (AN-15)
Y-4401-701-3	Connector, external antenna (EAC-4)
1-504-034-32	Earphone (ME-20B)
1-551-181-00	Cord, power
3-701-352-00	Bag, polyethylene
3-701-355-01	Label, tack
4-309-375-00	Sheet, protection
4-309-383-00	Cushion, left
4-309-384-00	Cushion, right
4-318-905-00	Carton, individual
4-491-039-12	Tag, VHF antenna
4-491-053-12	Tag, eye-catcher
4-491-107-22	Safety Tips
4-493-214-12	Card, caution
4-495-548-21	Manual, instruction

TRINITRON®
COLOR TV

KV-5100

USA Model

June, 1976

CORRECTION

Chassis No.

Correct chassis No. of KV-5100 service manual (on page 1) and supplement No. 1 (on page 1).

	Incorrect	Correct
Chassis No.	SCC-37B-B	SCC-105A-A

SONY®
SERVICE MANUAL

9-962-203-91

Sony Corporation

6F0233-1
Printed in Japan

TRINITRON®
COLOR TV

KV-5100

USA Model

SUPPLEMENT

Chassis No. SCC-37B-B

No. 1
June, 1976

Subject: Circuit Board Modifications

This supplement updates the service manual to include production changes starting with Serial No. 10,501.
File this supplement with the service manual.

1. CHANGED PARTS LIST

(Serial No. 10,501 and later)

Ref. No.	Former Part No./Part Value	New Part No./Part Value
L602 ~ L605	. . . . .	1-407-184-XX 3.3μH microinductor
C616	1-108-642-12 0.22μF 100 V mylar	1-108-640-11 0.15μF 100 V mylar
C618	1-102-002-11 680pF 500 V ceramic	. . . . .
C621	. . . . .	1-102-038-11 1000pF 500 V ceramic
C902	. . . . .	1-102-191-11 0.001μF 125 V ceramic
C622	. . . . .	1-102-430-11 33pF 3 kV ceramic

(Serial No. 14,501 and later)

Ref. No.	Former Part No./Part Value	New Part No./Part Value
T901	1-439-183-00 Flyback, FBT	1-439-183-21 Flyback, FBT
C511	1-130-057-11 45,000p 1 kV polyethylene	1-129-990-11 31,000pF 1 kV polyethylene
C513	1-129-706-11 0.0022μF 630 V polyethylene	1-129-704-11 1,500pF 630 V polyethylene
R902	1-202-601-11 15kΩ±5% ½W composition	1-202-613-11 47kΩ±5% ½W composition
R519	1-206-455-11 4.7Ω 2W metal oxide (nonflammable)	1-206-461-11 8.2Ω 2W metal oxide (nonflammable)

Note: When replacing FBT (T901), change values of C511, C513 and R902 simultaneously.

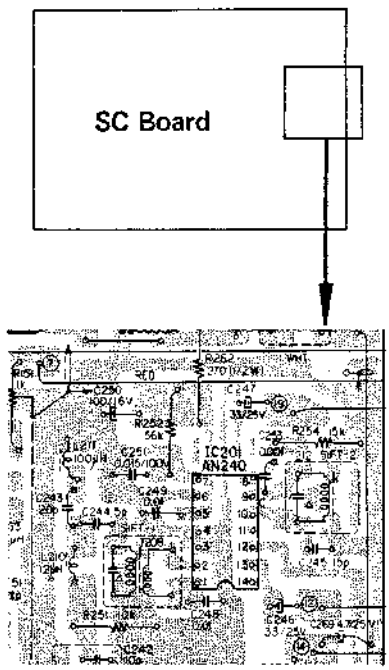
SONY®
SERVICE MANUAL

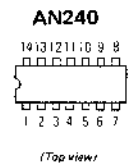
2. INTERCHANGEABILITY

Former and new circuit boards are interchangeable.

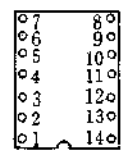
3. TERMINAL NUMBERS OF IC201

For some sets, the terminal numbers of IC201 printed on the SC board are different on the mounting diagram in the service manual.
When replacing IC201 (AN240), mount it as shown in the service manual.

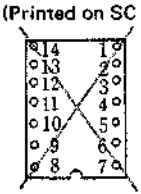




Correct



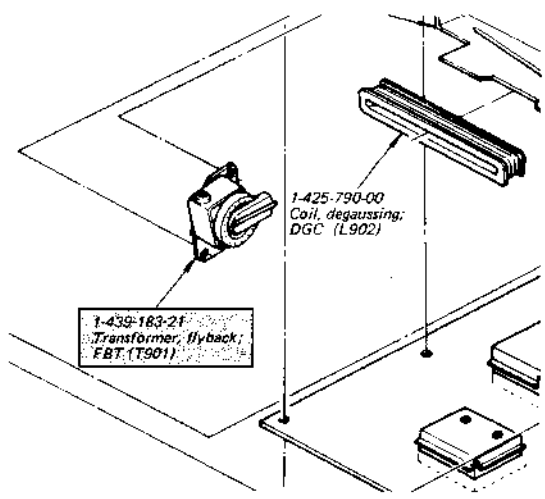
Incorrect
(Printed on SC board)



4. EXPLODED VIEWS (3)

Page 35

; changed portion

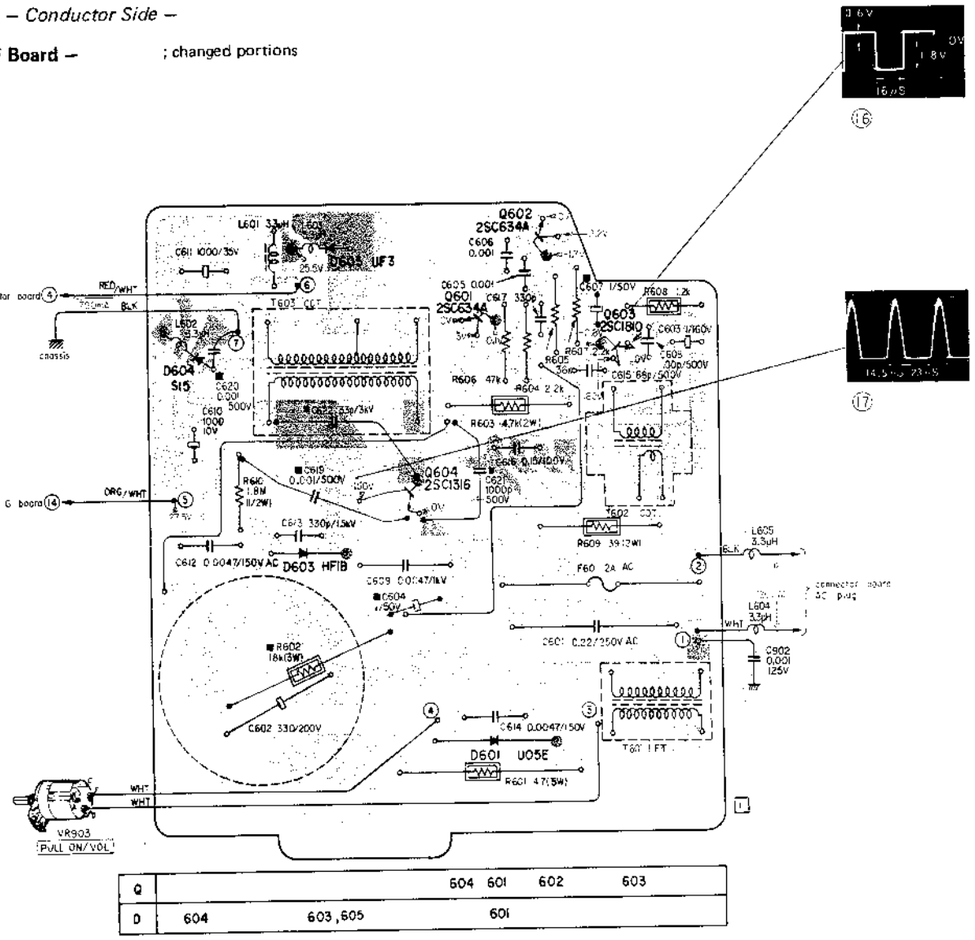


F D

5. MOUNTING DIAGRAMS

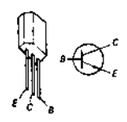
– Conductor Side –

– F Board – ; changed portions

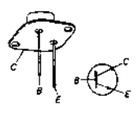


Q		504	601	602	603
D	604	603,605		601	

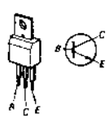
2SC634A



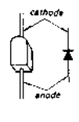
2SC1316



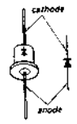
2SC1810



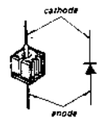
HF1B



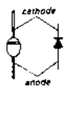
S15



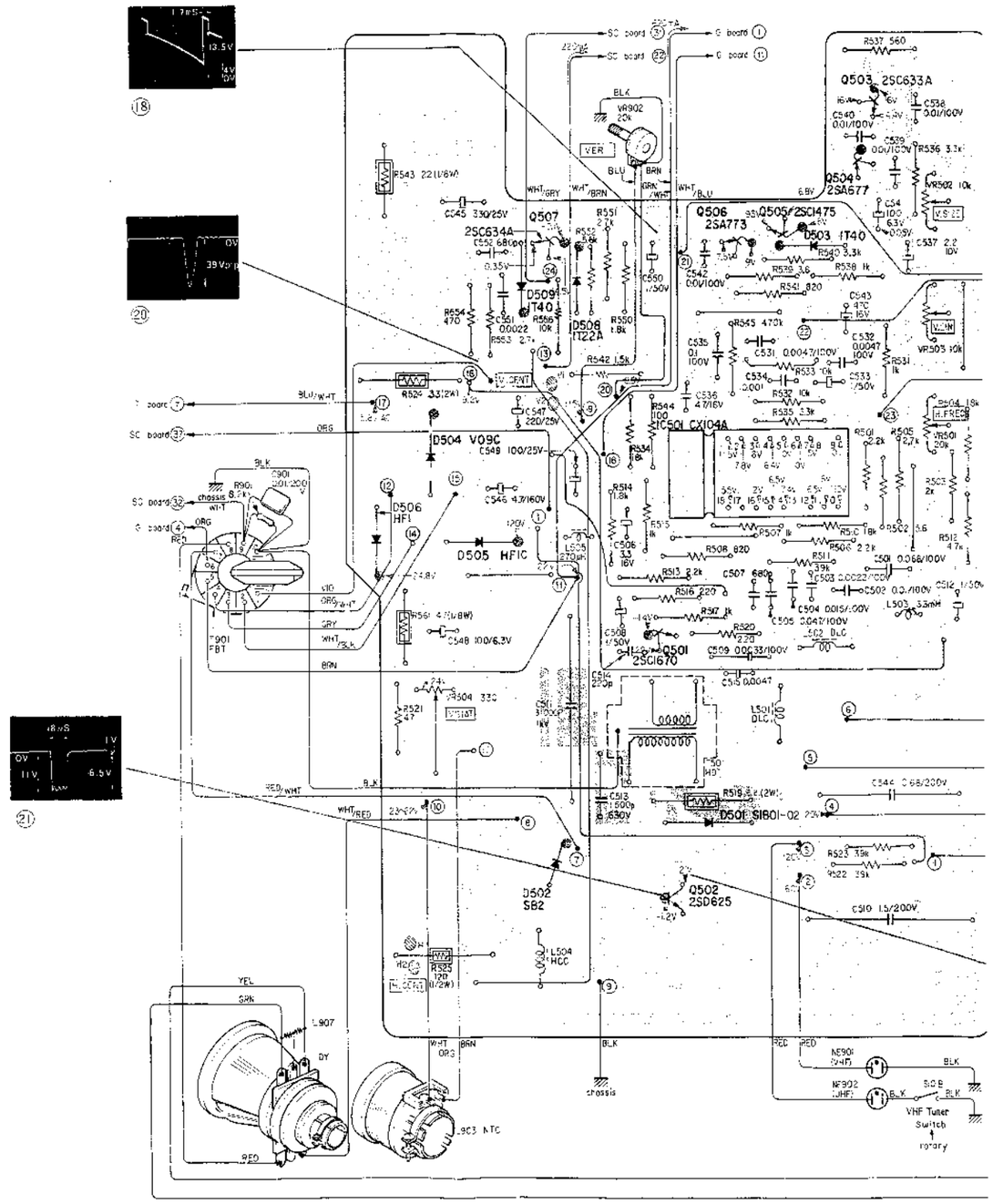
UF3



U05E



– D Board – changed portions

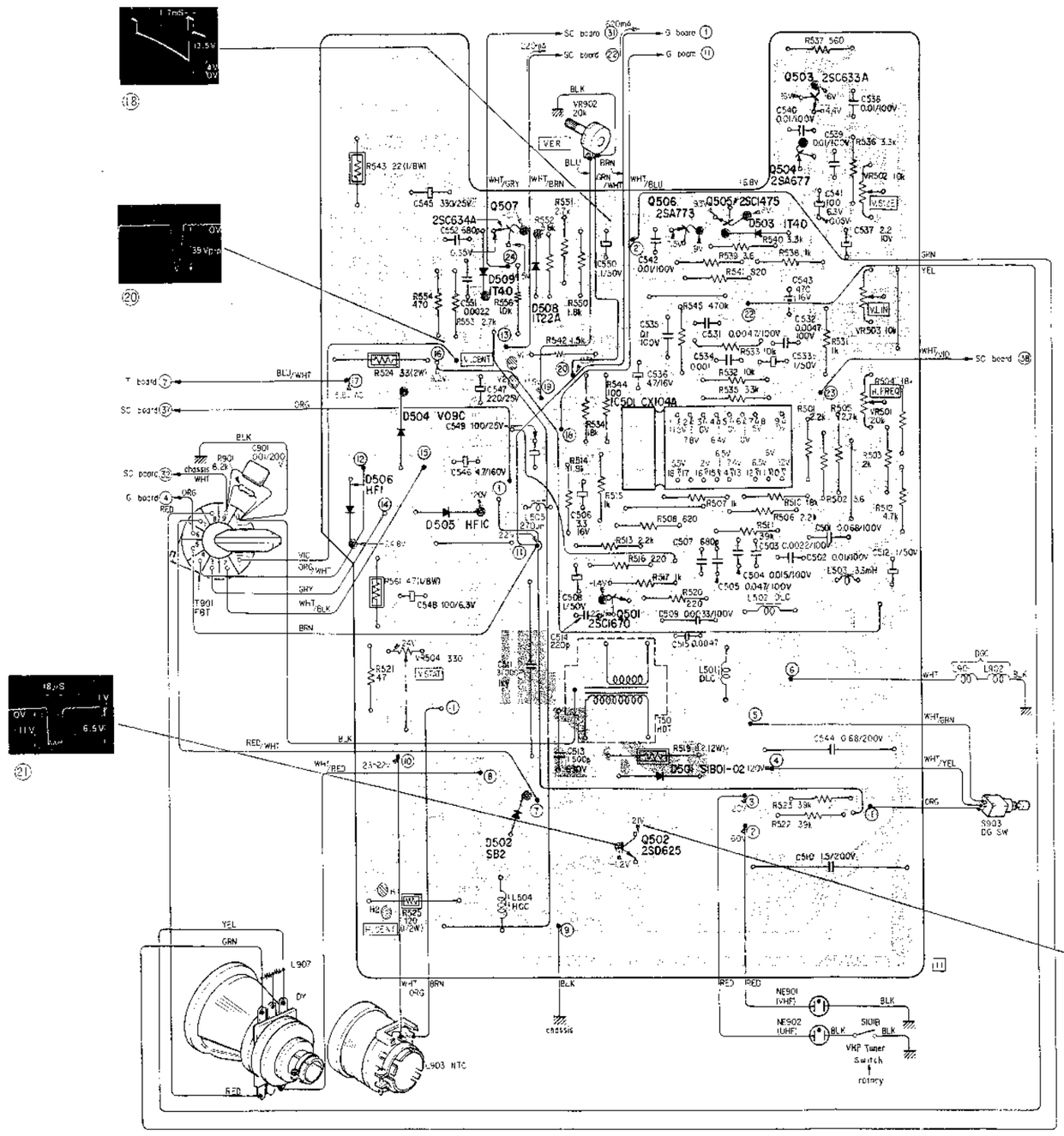

Q503 2SC633A
Q504 2SA677
Q506 2SA773
Q505 2SC1475
Q507 2SC634A
D503 T40
D504 V09C
D505 HF1C
D506 HF1
D507 T40
D508 T22A
D509 T40
Q501 2SC1670
D501 S1601-02
Q502 2SD625
D502 SB2
L501 DLC
L502 DLC
L503 33mH
L504 HCC
T901 FBT
L907
L903 NTC
VR902 20k
VR501 10k
VR502 10k
VR503 10k
VER
HOR
V. CENT
H. FREQ
V. HIN
R543 22(1/6W)
R544 100
R545 470k
R546 470
R547 220/25V
R548 100/6.3V
R549 4.7(1/8W)
R550 1.8k
R551 2.2k
R552 3.9k
R553 2.7k
R554 470
R555 10k
R556 1.8k
R557 3.6k
R558 1k
R559 3.3k
R560 10k
R561 4.7(1/8W)
R562 33(2W)
R501 2.2k
R502 5.6
R503 2k
R504 2.2k
R505 2.7k
R506 1.8k
R507 1k
R508 820
R509 0.33/100V
R510 1.8k
R511 39k
R512 47k
R513 3.2k
R514 1k
R515 1k
R516 220
R517 1k
R518 4.7(2W)
R519 4.7(2W)
R520 220
R521 47
R522 39k
R523 39k
R524 33(2W)
R525 120 (1/2W)
C501 0.068/100V
C502 0.1/100V
C503 0.022/100V
C504 0.015/100V
C505 0.047/100V
C506 33 16V
C507 680
C508 1/50V
C509 0.033/100V
C510 1.5/200V
C511 3300p 1kV
C512 1/50V
C513 1500p 630V
C514 330p
C515 0.0047
C516 0.1/50V
C517 0.1/50V
C518 0.1/50V
C519 0.1/50V
C520 0.1/50V
C521 0.1/50V
C522 0.1/50V
C523 0.1/50V
C524 0.1/50V
C525 270p
C526 0.1/50V
C527 0.1/50V
C528 0.1/50V
C529 0.001/100V
C530 0.1/50V
C531 0.0047/100V
C532 0.0047 100V
C533 /50V
C534 .001
C535 .01 100V
C536 47/16V
C537 2.2 10V
C538 0.01/100V
C539 0.001/100V
C540 0.01/100V
C541 0.0022
C542 0.01/100V
C543 47C 16V
C544 0.68/200V
C545 330/25V
C546 47/160V
C548 100/25V
C549 100/25V
C550 /50V
C551 0.0022
C552 680pF
C553 2.7n
C554 0.68/200V
C555 0.0047
C556 0.1/50V
C557 0.1/50V
C558 0.1/50V
C559 0.1/50V
C560 0.1/50V
C561 0.1/50V
C562 0.1/50V
C563 0.1/50V
C564 0.1/50V
C565 0.1/50V
C566 0.1/50V
C567 0.1/50V
C568 0.1/50V
C569 0.1/50V
C570 0.1/50V
C571 0.1/50V
C572 0.1/50V
C573 0.1/50V
C574 0.1/50V
C575 0.1/50V

F

D

— D Board —

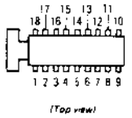
changed portions



Q	D	ADJ
503		
504		VR502
505		
506	503	
507	508	
	509	VR503
IC501	504	VR501
	505	
	506	
501		VR504
	501	
502	502	

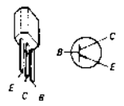
D

CX104

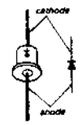


HF1
HF1C

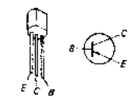
2SA677



SB2

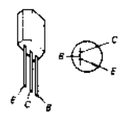


2SA773

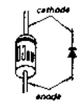


V09C

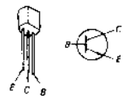
2SC633A
2SC634A



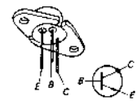
S1B01-02



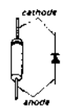
2SC1475
2SC1670



2SD625



1T22A
1T40



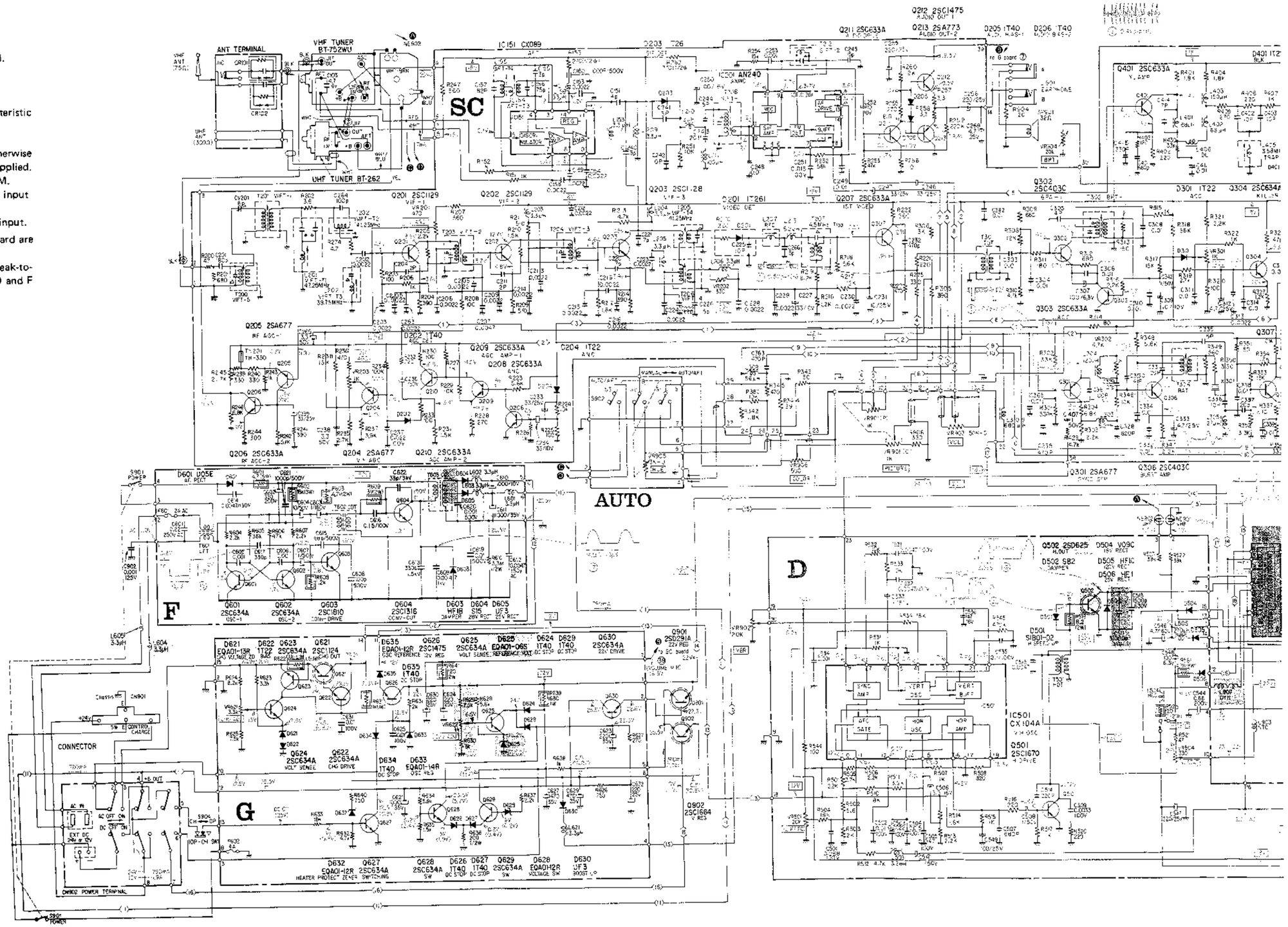
6. SCHEMATIC DIAGRAM

Note:

- All resistors are in ohms, ¼W unless otherwise noted.
  k = 1000 M = 1000k
- All capacitors are in μF unless otherwise noted.
  pF = μμF.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- △ indicates internal components.
- Voltages are DC with respect to ground unless otherwise noted. Readings are with a color-bar signal applied. Readings are taken with a 20,000-ohm-per-volt VOM.
- Voltages of { } in the G board are with 120V AC input and with S904 set to "CH" side.
- Voltages of < > in the G board are with 12V DC input.
- Voltages of Q601~Q604 and 150V in the F board are taken from the points to the emitter of Q604.
- Notice the pulse-width for the waveforms the peak-to-peak voltages of which are not indicated on the D and F boards.
- FW indicates a nonflammable resistor.

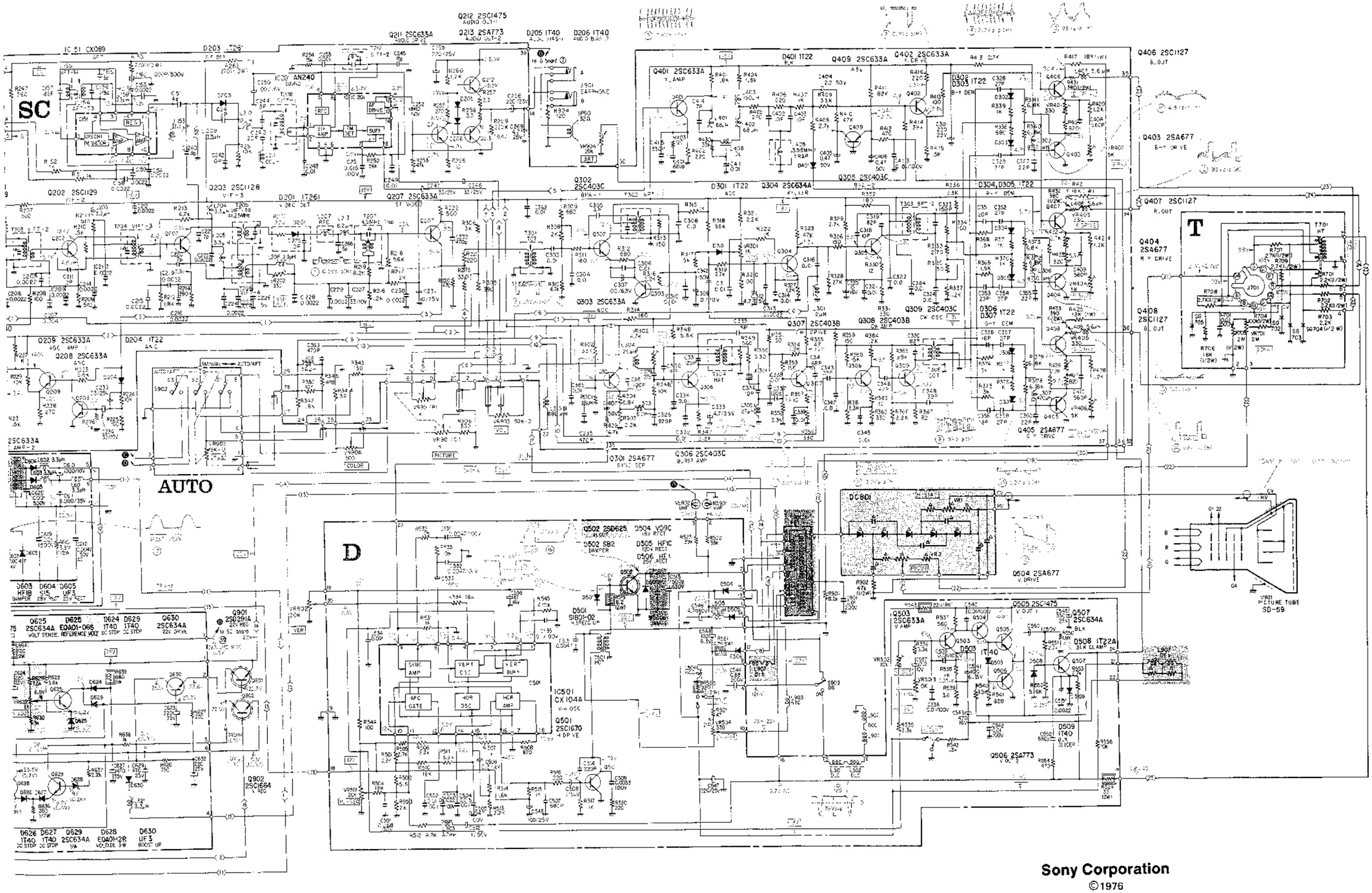
; changed portions

Note: The shaded components are critical for safety. Replace only with part number specified.



KV-3100 / KV-3160

Note: The shaded components are critical for safety. Replace only with part number specified.



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Sony Corporation

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Printed in Japan