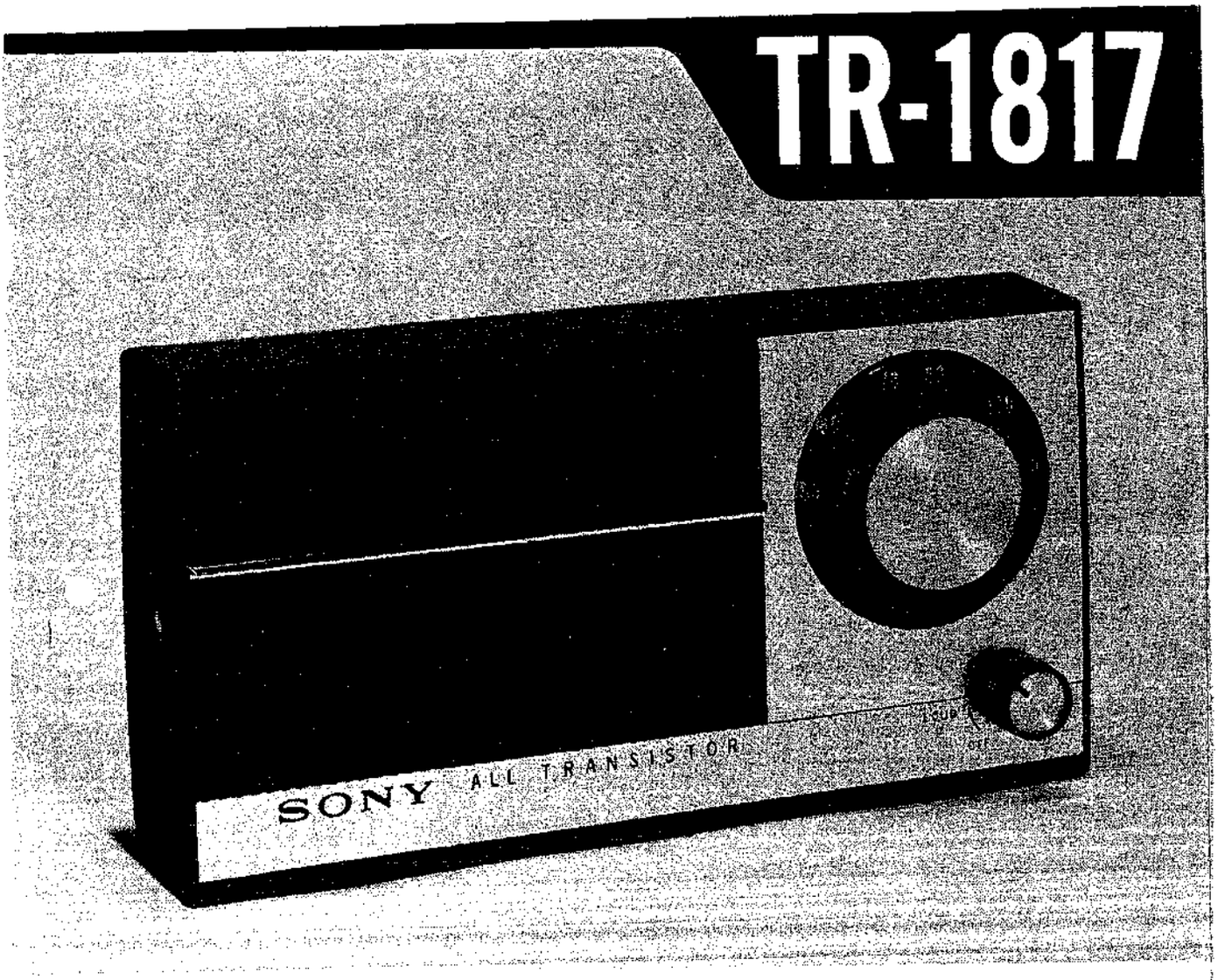
TR-1817



Specifications

Circuit :	6 Transistor Superheterodyne
Frequency Coverage :	530—1,605 Kc (566—187 m)
Intermediate Frequency :	455 Kc
Antenna System :	Built-in Ferrite Bar Antenna
Maximum Sensitivity (at 50 mW output) :	41 dB (110 μV/m)
Selectivity :	20 dB at 10 Kc off resonance, at 1,400 Kc
Output Power :	200 mW (undistorted)
Current Drain :	12 mA at zero signal, 90 mA at 200 mW output
Speaker :	4" × 2-1/2" (10 cm × 6.5 cm) PM dynamic, 8 Ω
Battery :	Three Size "C" Flashlight Batteries (4.5 Volts)
Dimensions :	7" × 3-15/16" × 1-7/8" (188 × 100 × 47 mm)
Weight :	1-3/16 lb. (0.75 Kg)
Color :	Black, Red, Gray

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TR-1817

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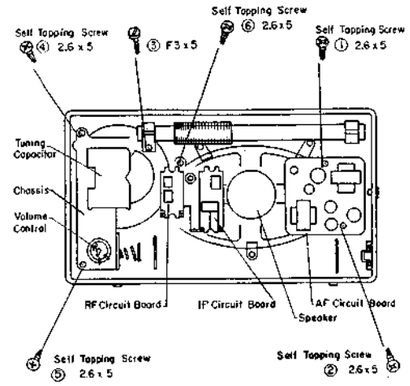
To Remove the Circuit Board from the Chassis

1) Loosen rear cover securing screw.
2) Take out the three batteries together with the battery cylinder.
3) Remove the IF and RF circuit boards raising up the circuit retainers on the chassis with screw driver. The RF and IF circuit boards can now be removed.
4) Remove the two screws ① and ② shown in the Fig. 1. The AF circuit board can now be removed.

To Remove the Chassis from the Cabinet

1) Remove RF and IF circuit boards from the chassis.
2) Remove the Tuning Knob and the Volume Control Knob by pulling.
3) Unsolder the Antenna, Tuning Capacitor and Volume Control leads.
4) Remove a screw ⑨ shown in Fig. 1.
5) Remove the three screws ④, ⑤ and ⑥ shown in the Fig. 1.



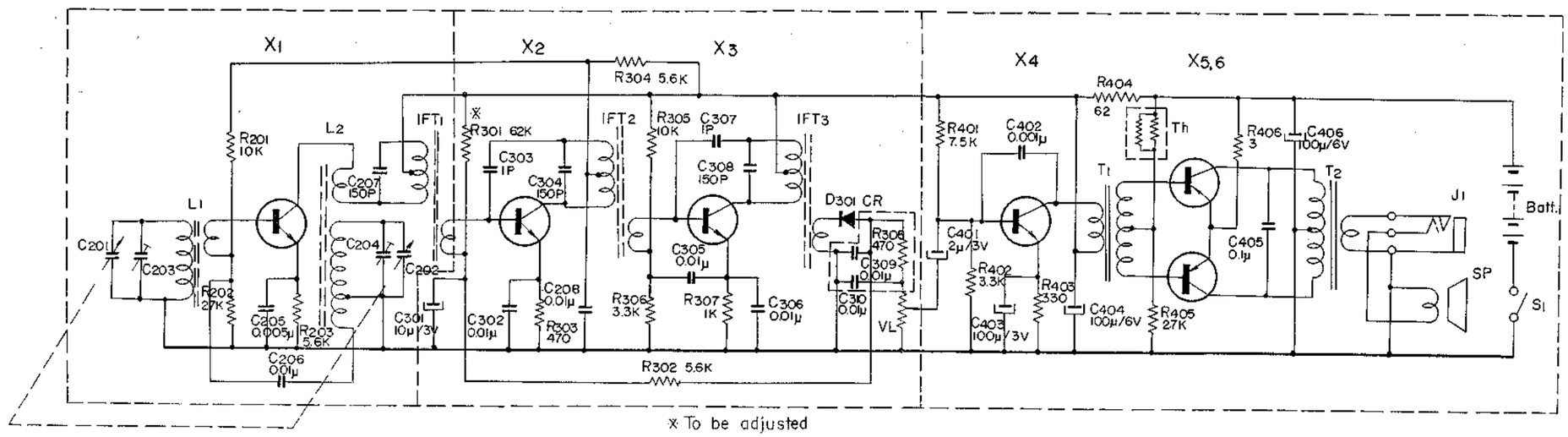
(Fig. 1)

Electronic Parts List

Part No.	Symbol	Description	Part No.	Symbol	Description
1-401-212-11	L_1	Ferrite Bar Antenna	1-203-421-00	R_{307}	1 KΩ 1/16W Carbon
1-405-250-11	L_2	Oscillator Coil		R_{308}	470Ω (built in CR)
1-403-026-02	IFT_1	IF Transformer	1-203-382-00	R_{401}	7.5 KΩ 1/8W Carbon
-026-02	IFT_2	〃	-373-00	R_{402}	3.3 KΩ 〃 〃
-027-02	IFT_3	〃	-360-00	R_{403}	330Ω 〃 〃
1-423-073-11	T_1	Driver Transformer	-355-00	R_{404}	62Ω 〃 〃
1-427-092-11	T_2	Output Transformer	-372-00	R_{405}	2.7 KΩ 〃 〃
1-507-011-01	J_1	Earphone Jack	-704-00	R_{406}	3Ω 〃 〃
1-502-066-02	SP	Speaker			
	S_1	Power Switch (built in VR)			**Capacitor**
1-231-016-11	CR	Encapsulated Component	1-151-014-03	$C_{201, 202}$	Tuning Capacitor, 2 gang
1-528-002-00	Batt.	Battery (1.5 V×3)		$C_{203, 204}$	Trimmer Capacitor, 2 unit
			1-101-479-11	C_{205}	0.005μF Ceramic
	X_1	Transistor 2SC73	-072-15	C_{206}	0.01μF 〃
	X_2	〃 2SC76		C_{207}	150PF (built in IFT_1)
	X_3	〃 2SC76	1-101-072-15	C_{208}	0.01μF Ceramic
	X_4	〃 2SD65	1-121-103-05	C_{301}	10μF 3V Electrolytic
	X_5	〃 2SB379	1-101-072-15	C_{302}	0.01μF Ceramic
	X_6	〃 2SB379	-009-11	C_{303}	1PF 〃
	D_{301}	Diode 1T23		C_{304}	150PF (built in IFT_2)
	Th	Thermistor CS-120	1-101-072-15	C_{305}	0.01μF Ceramic
			-072-15	C_{306}	0.01μF 〃
		Resistor	-009-11	C_{307}	1PF 〃
1-221-447-11	VR	5 KΩ Volume Control		C_{308}	150PF (built in IFT_3)
1-203-427-00	R_{201}	10 KΩ 1/16W Carbon		C_{309}	0.01μF (built in CR)
-895-00	R_{202}	27 KΩ 〃 〃		C_{310}	0.01μF (built in CR)
-425-00	R_{203}	5.6 KΩ 〃 〃	1-121-175-00	C_{401}	2μF 3 V Electrolytic
-638-00	*R_{301}	62 KΩ 〃 〃	1-105-821-00	C_{402}	0.001μF Mylar
-425-00	R_{302}	5.6 KΩ 〃 〃	1-121-111-00	C_{403}	100μF 3 V Electrolytic
-420-00	R_{303}	470 Ω 〃 〃	-115-00	C_{404}	100μF 6 V 〃
-425-00	R_{304}	5.6 KΩ 〃 〃	1-101-086-13	C_{405}	0.1μF Ceramic
-427-00	R_{305}	10 KΩ 〃 〃	1-121-115-00	C_{406}	100μF 6 V Electrolytic
-434-00	R_{306}	3.3 KΩ 〃 〃			

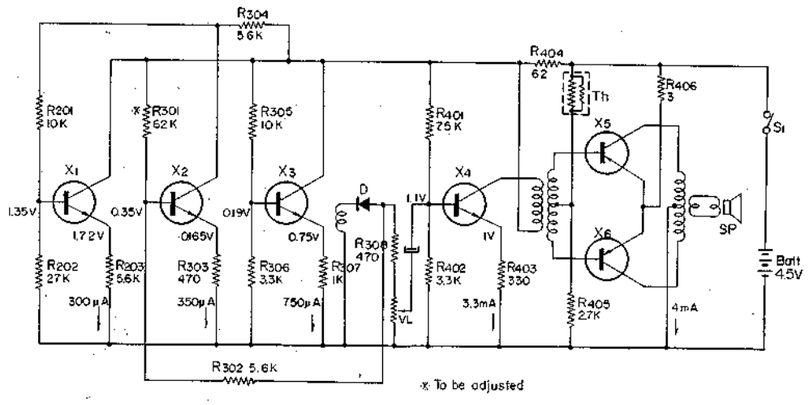
* To be adjusted

Schematic Diagram



※ To be adjusted

Voltage and Current Distribution Chart at Zero Signal

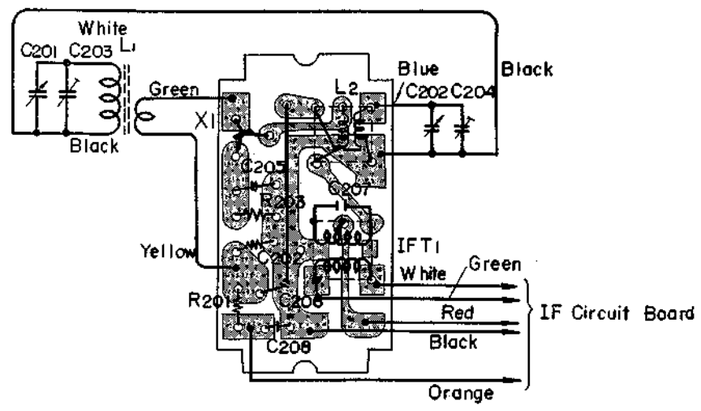


※ To be adjusted

Mounting Diagram

—Printed Side—

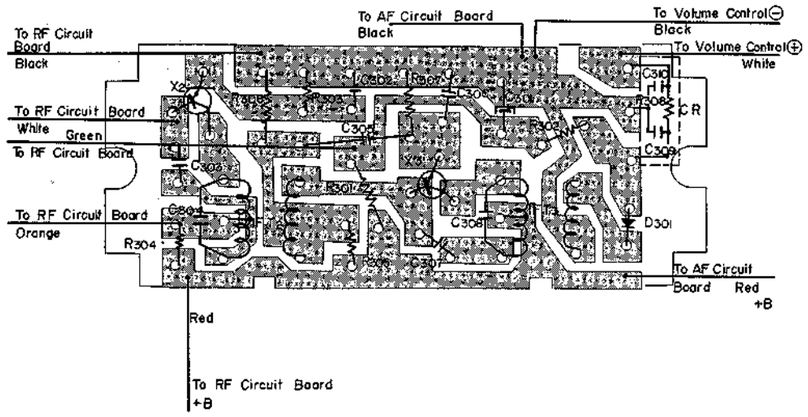
RF Section



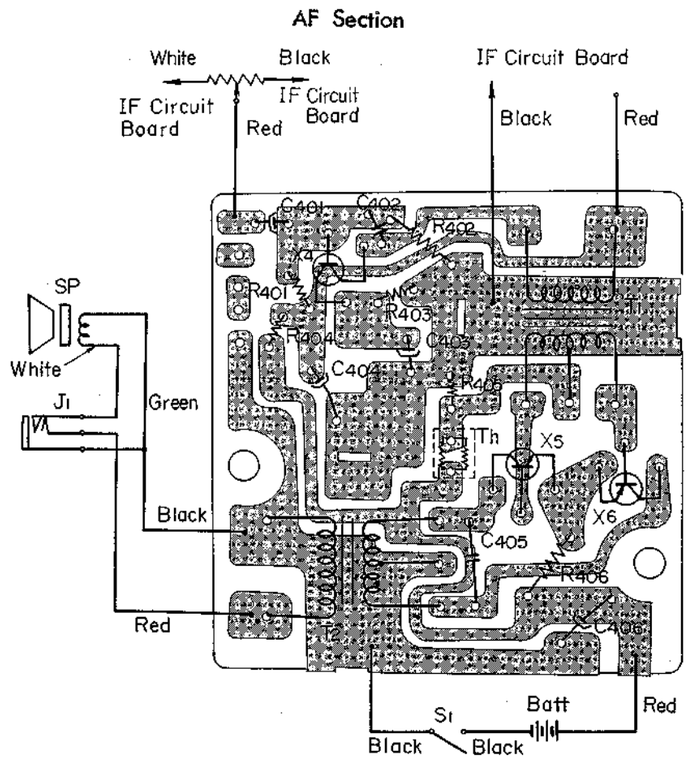
Mounting Diagram

—Printed Side—

IF Section



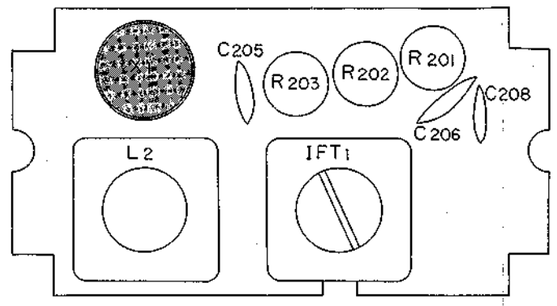
AF Section



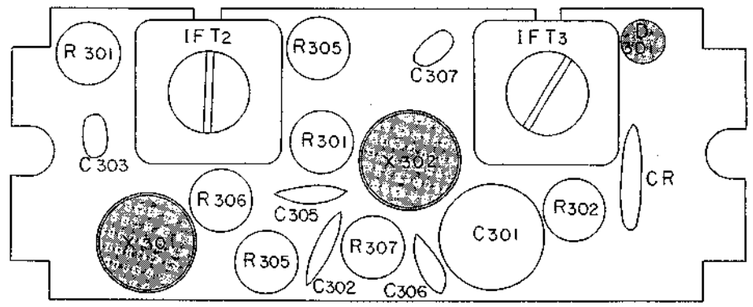
Mounting Diagram

—Parts Side—

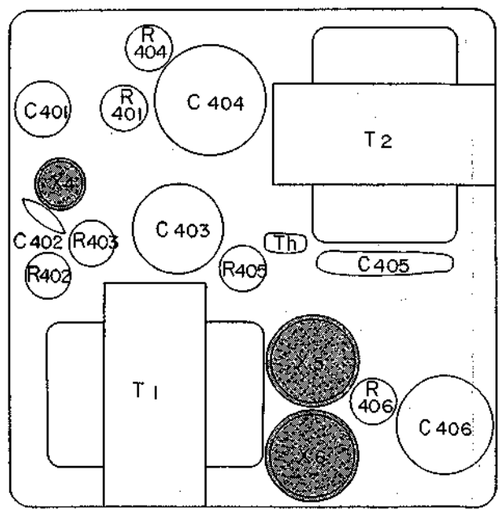
RF Section



IF Section



AF Section



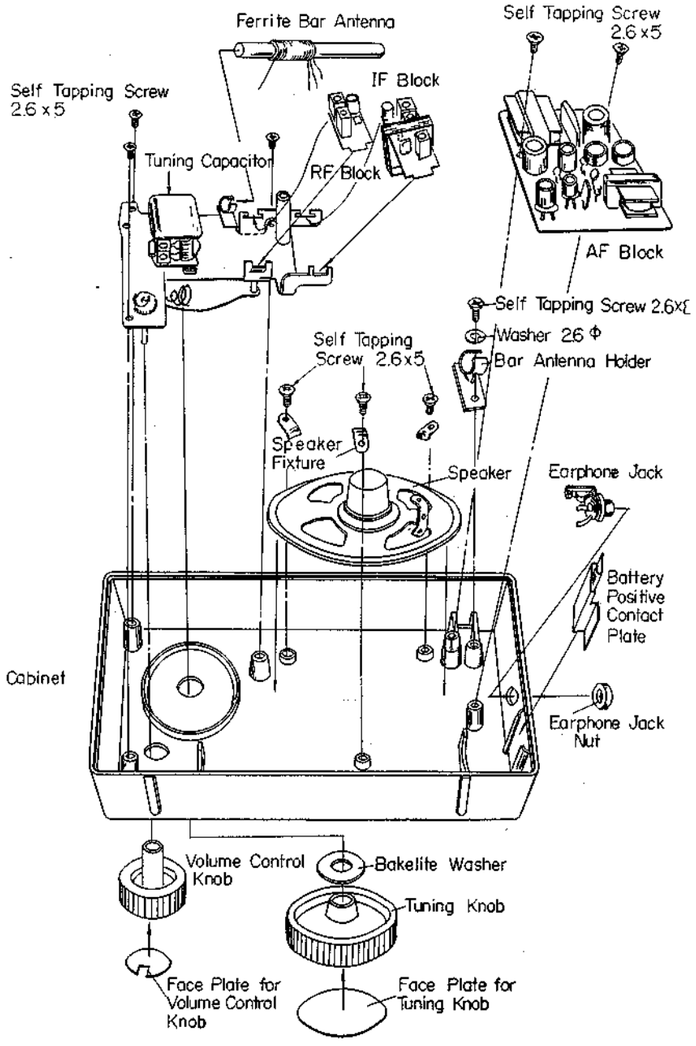
Adjustment and Alignment

a) Frequency Coverage Alignment

Lower Limit	Adjust	Upper Limit	Adjust
520 Kc	Core of OSC Coil (L_2)	1,680 Kc	OSC Trimmer (C_{204})

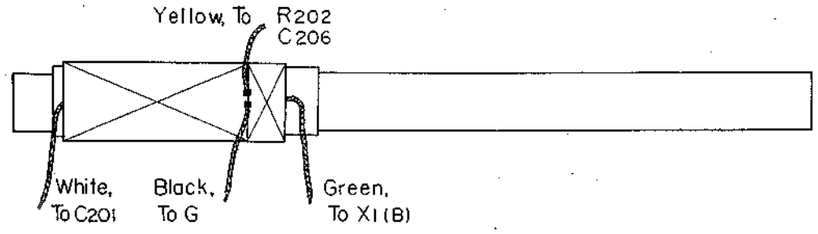
b) Tracking Alignment

Checking Point	Adjust	Checking Point	Adjust
620 Kc	Position of ANT Coil (L_1)	1,400 Kc	ANT Trimmer (C_{203})

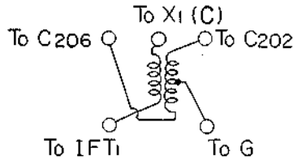


(Fig. 2)

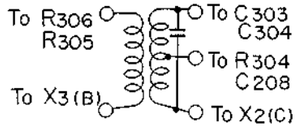
L_1 Ferrite Bar Antenna



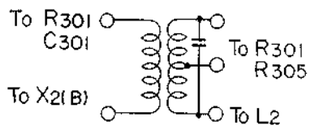
L_2 OSC Coil



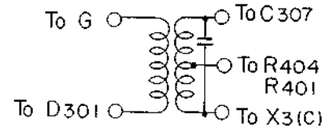
IFT_2



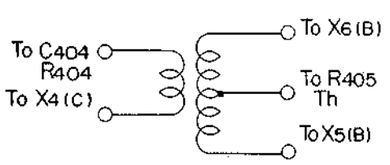
IFT_1



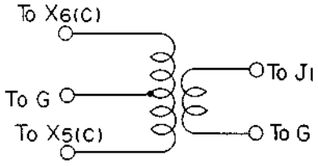
IFT_3



T_1 Driver Transformer



T_2 Output Transformer



T_1 Driver Transformer

	Impedance	DC Resistance
Primary	1.5 KΩ	245Ω
Secondary	1.8 KΩ	400Ω

T_2 Output Transformer

	Impedance	DC Resistance
Primary	120Ω	9Ω
Secondary	8Ω	0.8Ω

SONY CORPORATION

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