

SERVICE MANUAL & PARTS LIST

(without price)

JY-10C (PAL B / G,H)

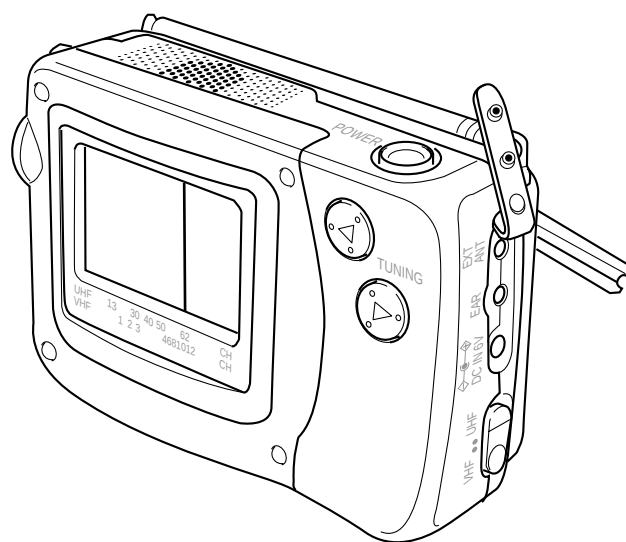
JY-10D (PAL I)

JY-10I (PAL B / G)

JY-10N (PAL B / G,H)

(KX-513)

SEPT. 1997



INDEX

CASIO®

CONTENTS

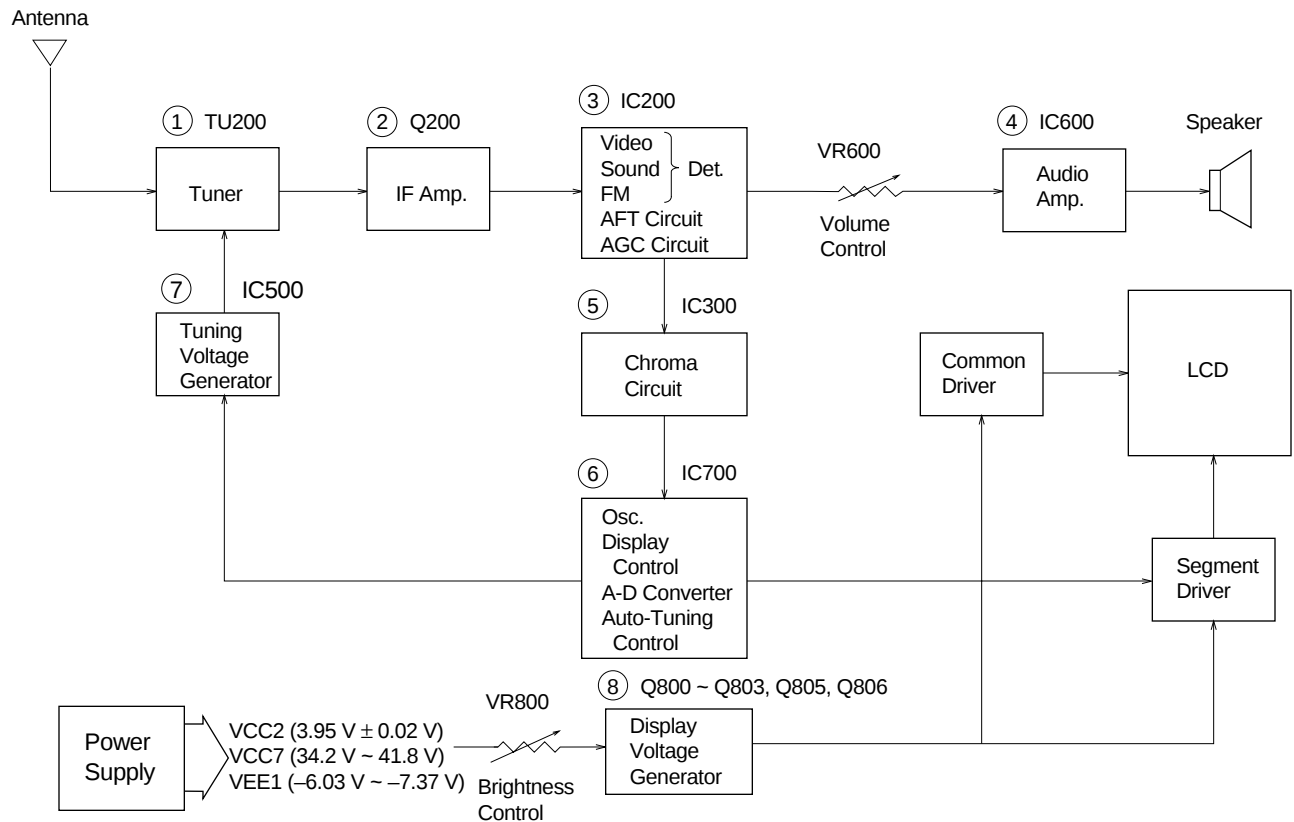
	Page
SPECIFICATIONS	1
BLOCK DIAGRAM	2
PRINTED CIRCUIT BOARDS	3
PARTS LIST	5
EXPLODED VIEW	9
SCHEMATIC DIAGRAMS	10
WAVEFORMS	13

SPECIFICATIONS

Item	Specification
1. Power voltage	DC 6.0 V
2. Power consumption	Approx. 3.5 W
3. Current consumption	Approx. 580 mA
4. Battery life (with alkaline batteries)	Approx. 4 hours
5. Power supply	Batteries : 4 × LR6 (D) size batteries Car adaptor : CA-K65 AC adaptor : AD-K65
6. Connection terminals	Earphone jack : 3.5 ø mini External power jack : 6.0 V DC IN External antenna jack : 3.5 ø mini
7. Screen size	2.3 inches
8. No. of picture element	39,600 (360 × 110) dots
9. Dimensions	84 mm (H) × 138 mm (W) × 51 mm (D)
10. Weight	230 g without batteries
11. Options	AC adaptor : AD-K65 Car adaptor : CA-K65 Antenna matching device : AS-35S

Model	Color System	TV System	Channel		
JY-10C/N	PAL	B/G, H	CCIR	VHF: 2 ~ 12 ch	UHF: 21 ~ 69 ch
JY-10D	PAL	—/I	UK	—	UHF: 21 ~ 68 ch
JY-10I	PAL	B/G	ITALY	VHF: A ~ H2 ch	UHF: 21 ~ 69 ch

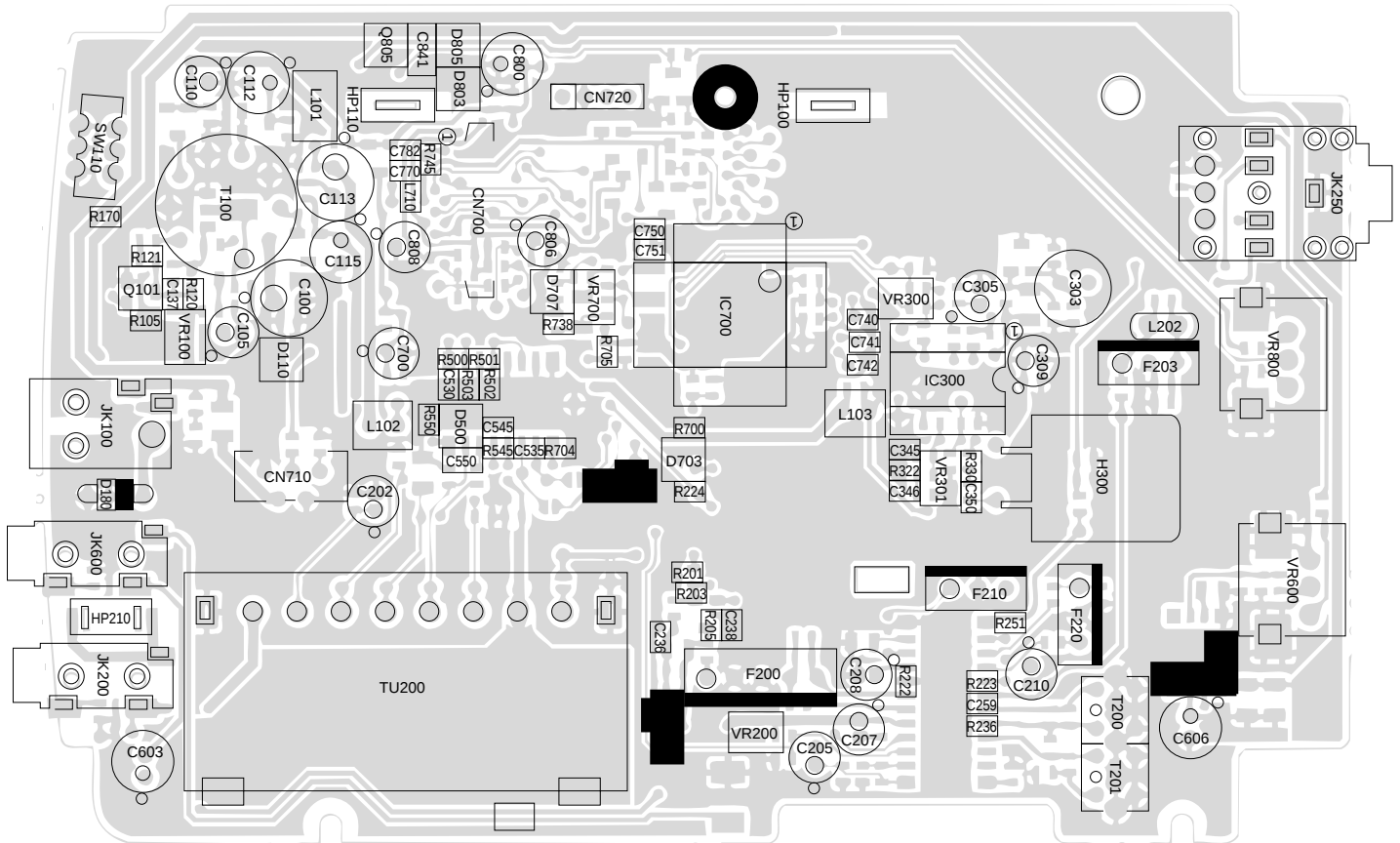
BLOCK DIAGRAM



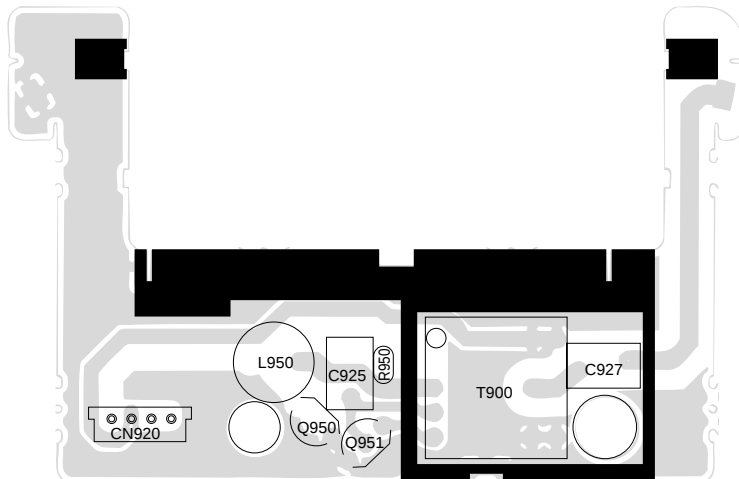
- ① — Color Tuner: TU200 TEPE5-01, TEPB5-05
Selects a desired radio wave and changes it to the video IF signal.
- ② — Video IF Amp.: Q200 2SC4238
Amplifies the video IF signal output from the tuner TU by 10 times (20 dB).
- ③ — Video Det./Sound Det./FM Det./AFT/AGC: IC200 M51348FP
Eliminates the carrier wave in the video IF signal, and picks up the video signal and the sound IF signal. Also, the sound signal is picked up from the sound IF signal by FM detection.
- ④ — Audio Amp.: IC600 NJM2070M
Sound amplification.
- ⑤ — Chroma Circuit: IC300 M52045FP
Generates the tricolor (red, green, and blue) from the video signal.
- ⑥ — OSC/A-D Converter/Display Control/ Auto-Tuning Control : IC700 MSM6625-02 GSK-640F
Converts the color signal into a digital signal.
Also, generates the clock pulse for the display and controls the display.
- ⑦ — Tuning Voltage Generator: IC500 MSC1169MS-K
Generates the tuning voltage with the tuning pulse (TU) output from ⑥.
- ⑧ — Display Voltage Generator: Q800 ~ Q803, Q805, Q806, 2SD1149S, 2SD601A-R×4, 2SB709A-R
Generates the display voltages V0 ~ V4 with VEE1 and VCC7 outputs from the power supply.

TOP VIEWS

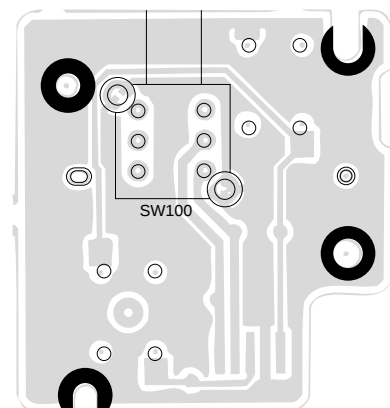
Linear



Back Light



Switch



Linear



PARTS LIST

LINEAR PCB

Item	Code No.	Parts Name	Specification	Applicable	Q	R
Diodes						
D180	2390 1190	DIODE	ERA15-01Y	JY-10 Common	1	C
D805	2390 1253	DIODE/CHIP	MA152WA-(TX)	JY-10 Common	1	C
D110,D150,D152	2390 1176	DIODE/CHIP	MA152WK-(TX)	JY-10 Common	3	C
D155	2390 1302	DIODE/CHIP	MA153A-(TX)	JY-10 Common	1	C
D703 / D803	2390 0469	DIODE/CHIP	MA157A-(TX)	JY-10 Common	2	C
D705	2390 1358	DIODE/VARIABLE	MA329-(TX)	JY-10 Common	1	C
D500	2360 1344	DIODE/ZENER	MA3330-M(TX)	JY-10 Common	1	C
D800	2360 2919	DIODE/ZENER	MA3056-L(TX)	JY-10 Common	1	C
D707	2360 1113	DIODE/ZENER	MA3082-M(TX)	JY-10 Common	1	C
Fuse						
FU100	2797 5507	FUSE/CHIP	PI-R429.750	JY-10 Common	1	B
ICs						
IC200	2114 1827	IC/LINEAR	M51348FP-T1	JY-10 Common	1	C
IC300	2114 3311	IC/LINEAR	M52045FP-T1	JY-10 Common	1	C
IC500	2114 0182	IC/LINEAR	MSC1169MS-K-620	JY-10 Common	1	C
IC700	2011 3514	LSI	MSM6625-02GSK-640F	JY-10 Common	1	C
IC600	2114 2464	IC/LINEAR	NJM2070M-T1	JY-10 Common	1	C
Jacks						
JK100	3501 8281	JACK	HEC0811-010010	JY-10 Common	1	C
JK250	3501 3773	JACK	HSJ6063-01-410	JY-10 Common	1	C
JK200 / JK600	3501 5439	JACK	HSJ1456-01-210	JY-10 Common	2	C
Transistors						
Q101,Q300,Q801	2210 8026	TRANSISTOR/CHIP	2SB709A-R(TX)	JY-10 Common	3	C
Q200	2252 0707	TRANSISTOR/CHIP	2SC4238-(TX)	JY-10 Common	1	C
Q111	2253 0308	TRANSISTOR/CHIP	2SD1119-R(TX)	JY-10 Common	1	C
Q805	2253 0476	TRANSISTOR/CHIP	2SD1149-S(TX)	JY-10 Common	1	C
Q110,Q112,Q800	2230 7011	TRANSISTOR/CHIP	2SD601A-R(TX)	JY-10 Common	6	C
Q802,Q803,Q806						
Switch						
SW110	3412 1134	SWITCH/SLIDE	ESD-11V221	JY-10C/I/N	1	C
Converter						
T100	3065 0672	DC-DC CONVERTER	LC12U-40	JY-10 Common	1	B
Tuner						
TU200	1013 5315	TUNER	TEPE5-01	JY-10C/I/N	1	C
TU200	1014 8570	TUNER	TEPB5-05	JY-10D	1	C
Variable resistors						
VR600	2765 2191	VOLUME	RK09K111-10KB-H	JY-10 Common	1	C
VR800	2765 2192	VOLUME	RK09K111-20KB-L	JY-10 Common	1	C

Notes : Q - Quantity used per unit

R - Rank

Item	Code No.	Parts Name	Specification	Applicable	Q	R
Lamp						
LA900	3851 1918	FLUORESCENT LAMP	3064BB-CA39	JY-10 Common	1	A
Transistors						
Q950 / Q951	2253 0287	TRANSISTOR/CHIP	2SD965-R	JY-10 Common	2	B
Transformer						
T900	3012 1588	INVERTER TRANS	C-8123	JY-10 Common	1	B

Item	Code No.	Parts Name	Specification	Applicable	Q	R
Switches						
SW700 / SW701	3412 1029	SWITCH	SKHHAL	JY-10 Common	2	C
SW100	3412 2075	SWITCH	SPPJ6-N2-*W	JY-10 Common	1	C

— 6 —

COMPONENT

Item	Code No.	Parts Name	Specification	Applicable	Q	R
1	6612 5210	DISPLAY PLATE	K240671-2	JY-10C	1	C
1	6612 5310	DISPLAY PLATE	K240671-3	JY-10D	1	C
1	6612 4800	DISPLAY PLATE	K240671-4	JY-10I/N	1	C
2	6612 4410	ADHESIVE TAPE	K441111-1	JY-10 Common	1	X
3	6612 2800	PANEL/UPPER	K140371-1	JY-10C(Black)	1	X
3	6612 4440	PANEL/UPPER	K140371-2	JY-10C(Yellow)/D/N	1	X
3	6612 5250	PANEL/UPPER	K140371-3	JY-10I	1	X
4	6612 2880	KNOB/VOLUME	K340834-1	JY-10 Common	1	X
5	6612 5830	ADHESIVE TAPE	K441111-2	JY-10 Common	2	X
6	6612 3050	CASE/UPPER	K140368-1	JY-10C(Black)	1	X
6	6612 5220	CASE/UPPER	K140368-7	JY-10C(Yellow)	1	X
6	6612 5300	CASE/UPPER	K140368-2	JY-10D	1	X
6	6612 5240	CASE/UPPER	K140368-5	JY-10I	1	X
6	6612 5270	CASE/UPPER	K140368-6	JY-10N	1	X
7	6612 2890	KNOB/BRIGHT	K340821-1	JY-10C(Black)	1	X
7	6612 4370	KNOB/BRIGHT	K340821-2	JY-10C(Yellow)/D/I/N	1	X
8	6612 2930	COVER/JACK	K340823-1	JY-10 Common	1	X
9	6612 4360	COVER B/JACK	K340855-1	JY-10 Common	1	X
10	6612 2910	BUTTON/TUNING	K240669-1	JY-10 Common	1	X
11	6612 4333	SWITCH UNIT	K340862*1	JY-10C(Black)	1	X
11	6612 4334	SWITCH UNIT	K340862*2	JY-10C(Yellow)/D/I/N	1	X
12	6612 3040	CABLE/FLAT	K441087-1	JY-10 Common	1	X
13	6612 2920	BUTTON/POWER	K340822-1	JY-10C(Black)	1	X
13	6612 4430	BUTTON/POWER	K340822-2	JY-10C(Yellow)/D/I/N	1	X
14	6604 3110	SCREW	K41310-1	JY-10 Common	2	C
15	5861 3536	SCREW	BT3 1.7X12 Bk	JY-10 Common	2	C
16	5860 0483	SCREW	PS3 1.7X4.5 Bk	JY-10 Common	1	C
17	3831 0987	SPEAKER	2083G	JY-10 Common	1	C
18	6612 5726	PCB ASSY/LINEAR	K240736*1	JY-10C/I/N	1	B
18	6612 5727	PCB ASSY/LINEAR	K240737*1	JY-10D	1	B
19	6612 2900	KNOB/SWITCH	K240674-1	JY-10C(Black)	1	X
19	6612 4350	KNOB/SWITCH	K240674-2	JY-10C(Yellow)/D/I/N	1	X
20	6612 2980	SPRING/BATTERY	K441074-1	JY-10 Common	1	X
21	6612 2990	SPRING/BATTERY	K441075-1	JY-10 Common	1	X
22	6612 2840	STAND	K340831-1	JY-10C(Black)	1	C
22	6612 4460	STAND	K340831-2	JY-10C(Yellow)/D/I/N	1	C
23	6612 2870	HOLDER/STAND	K340832-1	JY-10 Common	1	C
24	5860 1022	SCREW	BT3 1.7X6 Bk	JY-10 Common	6	C
25	3851 1547	ANTENNA/ROD	YH830106	JY-10 Common	1	C
26	6612 2810	CASE/LOWER	K140369-1	JY-10C(Black)	1	X
26	6612 4450	CASE/LOWER	K140369-2	JY-10C(Yellow)/D/I/N	1	X
27	6612 2850	COVER/BATTERY	K240667-1	JY-10C(Black)	1	X
27	6612 4380	COVER/BATTERY	K240667-2	JY-10C(Yellow)/D/I/N	1	X
28	6609 1290	SCREW	K412031-1	JY-10 Common	1	C
29	6609 9630	SCREW	K410188-6	JY-10 Common	3	C
30	6020 7666	SPRING/BATTERY	P409A-1	JY-10 Common	2	X
31	6020 7658	SPRING/BATTERY	P408A-1	JY-10 Common	1	X
32	6612 5320	PLATE 3/RATING	K340828-5	JY-10D	1	X
33	6612 5330	PLATE 2/RATING	K340829-7	JY-10D	1	X
34	6609 9680	COVER/JACK	K340237-1	JY-10D/I/N	1	X
35	2725 1337	LCD	PSG123C1-T0	JY-10 Common	1	C

Notes : Q - Quantity used per unit

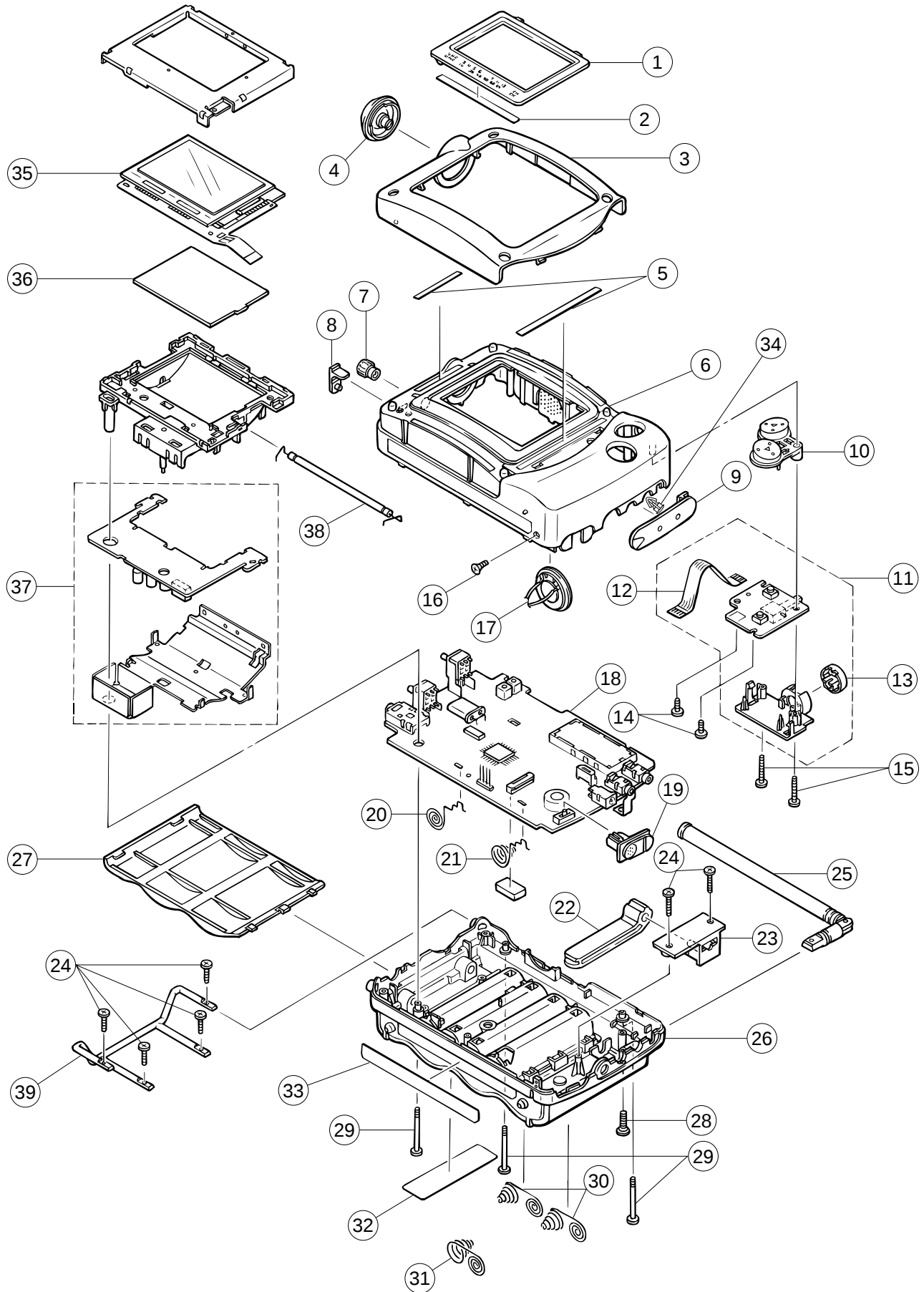
R - Rank

Item	Code No.	Parts Name	Specification	Applicable	Q	R
36	6611 0930	PLATE/DIFFUSION	K440800-1	JY-10 Common	1	X
37	6612 4330	BL UNIT	K340865*1	JY-10 Common	1	A
38	3851 1918	LAMP/FLUORESCENT	3064BB-CA39	JY-10 Common	1	A
39	6612 2820	PROTECTOR	K340827-1	JY-10 Common	1	X
	1014 9713	SOFT CASE	SC-513	JY-10 Common	1	X
	3851 2074	WRIST STRAP	ST-K513P	JY-10C(Black)	1	X
	3851 2073	WRIST STRAP	ST-K513Y	JY-10C(Yellow)/D/I/N	1	X

Notes : Q - Quantity used per unit

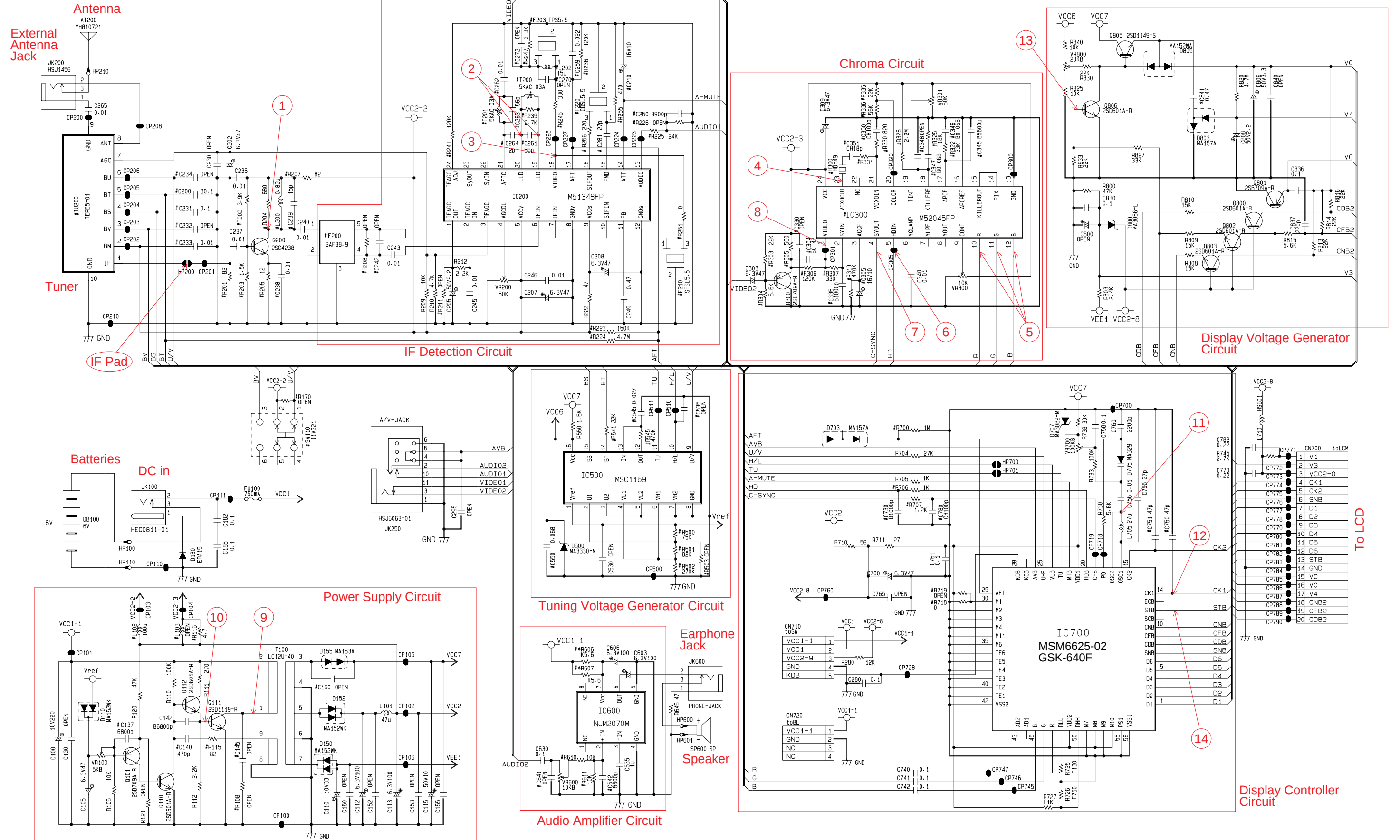
R - Rank

EXPLODED VIEW



SCHEMATIC DIAGRAMS

LINEAR (JY-10C/I/N)



Power Supply Circuit

The diagram illustrates a power supply circuit with various components and their connections. Key components include:

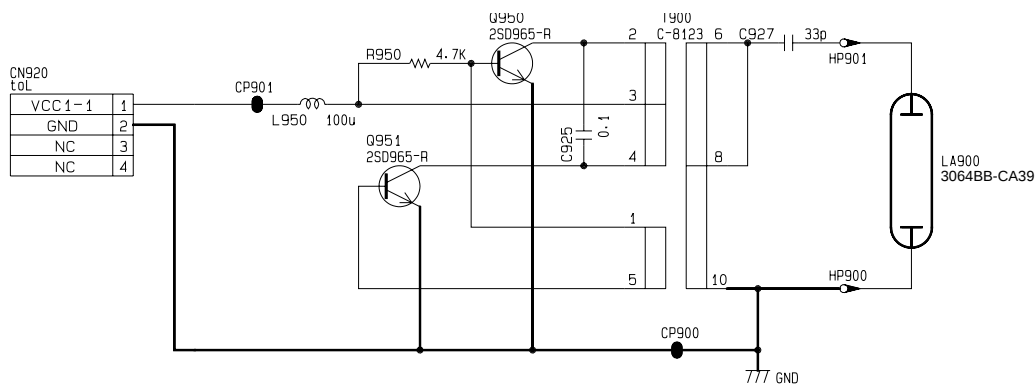
- Input Section:** A 10V/220V AC input (C100) connected to a bridge rectifier (D103, MA152WK) and a 100uF capacitor (C130).
- Filtering and Regulation:** The rectified output is filtered by a 6.3V/47V capacitor (C105) and a 5KB resistor (VR100). The filtered output is connected to a 2SB709A-R transistor (Q101) through a 10K resistor (R105).
- Transistor Stage:** The transistor's emitter is grounded, and its collector is connected to a 2SB709A-R transistor (Q102) through a 250K resistor (R121). The second transistor's emitter is grounded, and its collector is connected to a 250K resistor (R112) and a 2.2K resistor (R115).
- Output Section:** The circuit includes a 250K resistor (R110), a 100K resistor (R111), a 470pF capacitor (C140), and a 270 ohm resistor (R411). The output of the circuit is connected to a 10V/220V AC input (C100) through a 100uF capacitor (C130).

The circuit is powered by a 10V/220V AC input (C100) and a 100uF capacitor (C130). The output of the circuit is connected to a 10V/220V AC input (C100) through a 100uF capacitor (C130).

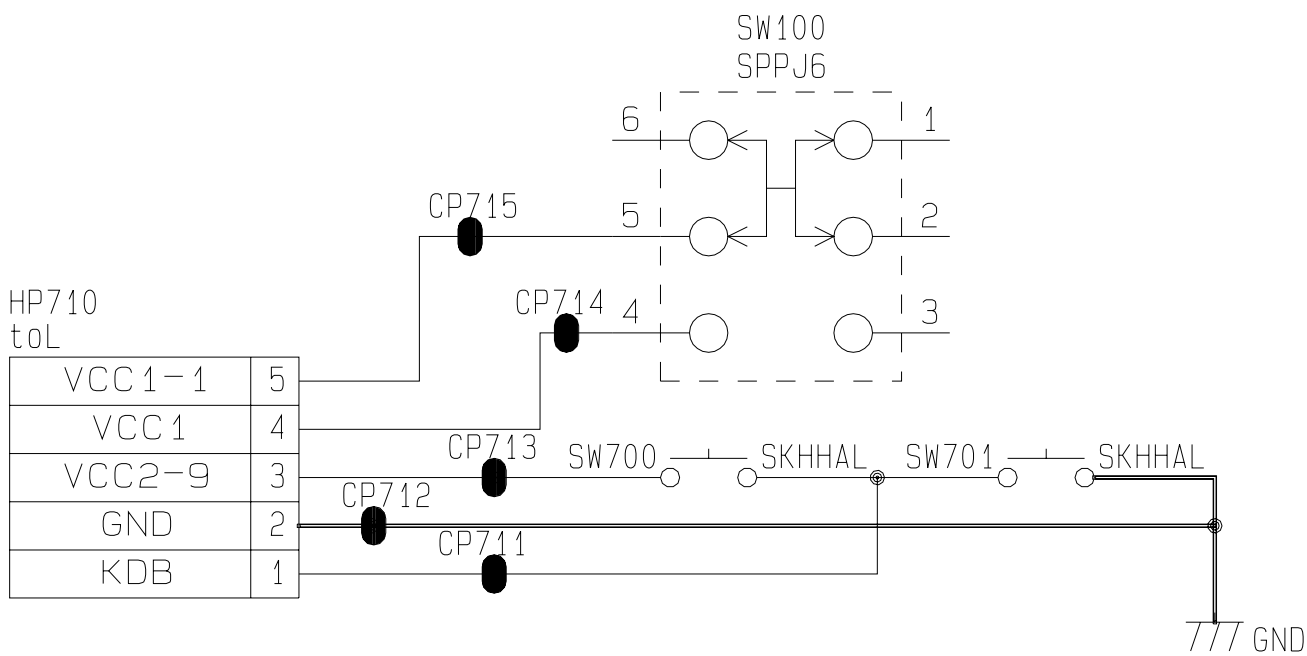
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Audio Amplifier Circuit

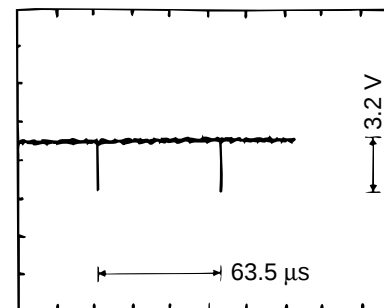
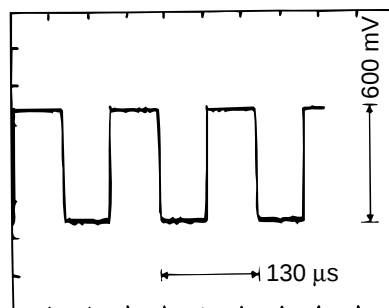
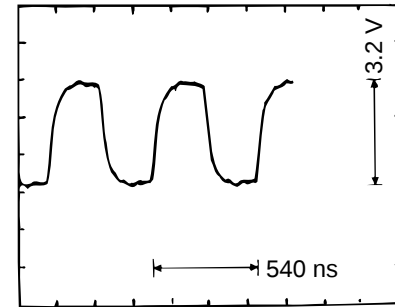
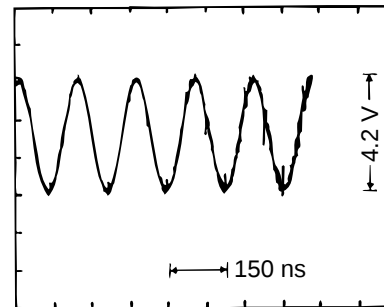
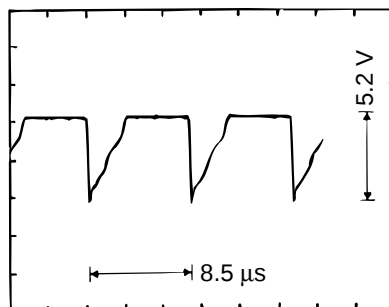
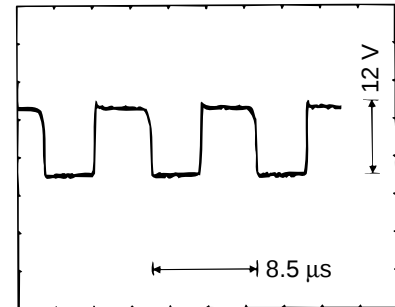
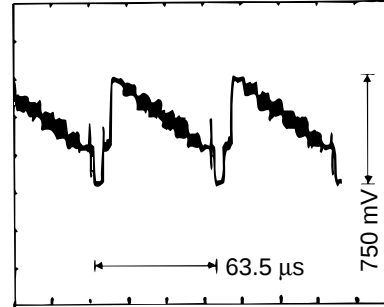
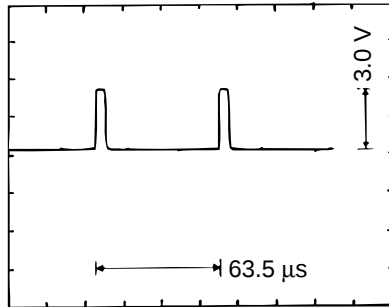
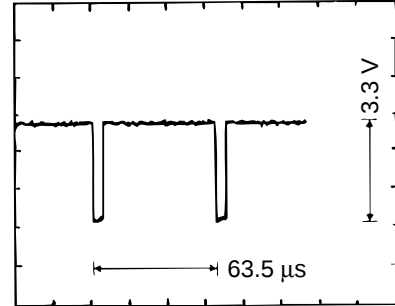
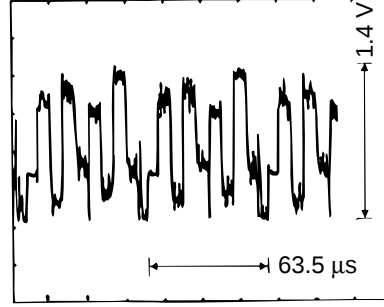
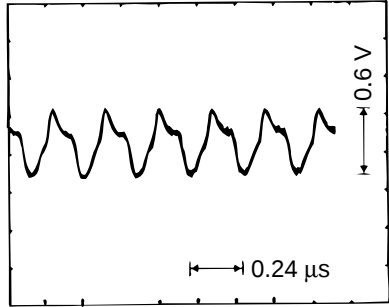
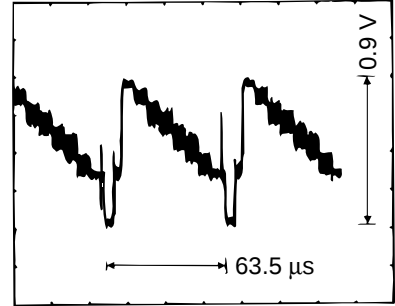
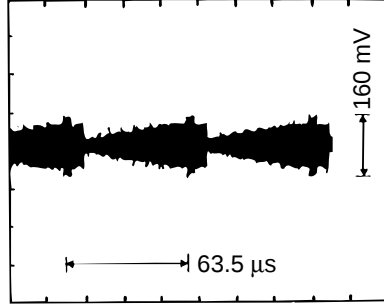
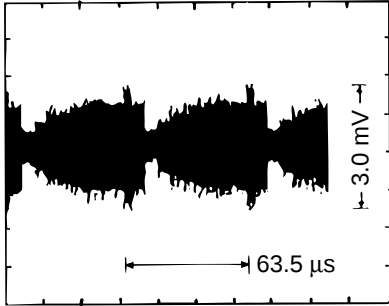
BACK LIGHT



SWITCH



WAVEFORMS



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