



SERVICE MANUAL

STEREO RADIO RECEIVER

This Service Manual is the "Revision Publishing" and replaces "Simple Manual" (S/M Code No.09-003-339-6T1).

SPECIFICATIONS

Frequency range	FM: 87.5 - 108 MHz AM: 530 - 1,710 kHz
Maximum output	6 mW + 6 mW (EIAJ 32 ohms)
Power source	DC 1.5 V using a size AA (R6) battery
Output	Headphones jack (Stereo mini jack)
Maximum dimensions	74.5 (W) x 82 (H) x 29 (D) mm (3 x 3 ¹ / ₄ x 1 ³ / ₁₆ in.)
Weight	Approx. 74 g (2.6 oz) (excluding battery)

- Design and specifications are subject to change without notice.

ACCESSORIES LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-RCL-901-010	IB, WYU (3L)	
2	87-B30-319-010	HEADPHONE, HP-M046(S)	NECK-BAND
3	8A-RCL-006-010	CLIP, BELT	YU

ELECTRICAL MAIN PARTS LIST

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If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC	87-A21-098-040	C-IC,NJM2096M		C129	87-010-192-080		C-CAP,S 0.022-50 F
	87-017-789-080	IC,TA2022FN		C130	87-010-031-010		CAP,E 3.3-25 M BK
	87-A20-745-040	C-IC,TA2030FN		C131	87-010-807-010		CAP,E 330-6.3MCA
				C132	87-010-194-080		CAP, CHIP 0.047
TRANSISTOR				C134	87-012-191-080		CHIP CAP 68 PF
				C135	87-A10-047-080		CAP, U 1-10
	87-A30-486-040	C-TR,BC857B		C136	87-010-148-080		CAP, CHIP S 4P-50 NPO
	89-508-824-080	CHIP FET,2SK882YTY		C137	87-012-159-080		C-CAP,S 24P-50 SL
	89-327-144-080	TR,2SC2714Y		C138	87-012-167-080		C-CAP,U 5P-50 CH
				C139	87-A10-827-080		C-CAP,U 0.47-6.3 K B
DIODE				C140	87-012-281-080		C-CAP,U 3900P-50 B
	8Z-CA3-615-010	DIODE,1S2638		C141	87-012-281-080		C-CAP,U 3900P-50 B
				C142	87-012-275-080		C-CAP,U 1200P-50 SL
				C145	87-012-286-080		CAP, U 0.01-25
				C146	87-A10-047-080		CAP, U 1-10
				C147	87-012-193-080		C-CAP,82P-50 NPO
MAIN C.B	BF101	87-A91-701-010	FLTR,GFW B4	C148	87-012-188-080		C-CAP,47P-50
	C101	87-012-274-080	C-CAP,U 1000P-50 B	C149	87-012-286-080		CAP, U 0.01-25
	C102	87-012-274-080	C-CAP,U 1000P-50 B	C150	87-012-286-080		CAP, 0.01-16
	C103	87-A11-729-080	CHIP CAPACITOR,0.47-25	C151	87-012-274-080		C-CAP,U 1000P-50 B
	C104	87-A11-729-080	CHIP CAPACITOR,0.47-25	C152	87-012-274-080		C-CAP,U 1000P-50 B
	C105	87-A11-729-080	CHIP CAPACITOR,0.47-25	C153	87-012-274-080		C-CAP,U 1000P-50 B
	C106	87-A11-729-080	CHIP CAPACITOR,0.47-25	CF101	87-008-570-010		FLTR,SFT10.7MS23H-AE
	C109	87-010-807-010	CAP,E 330-6.3MCA	CF102	86-HC5-628-010		FLTR,CDA10.7 MG16
	C110	87-A10-827-080	C-CAP,U 0.47-6.3 K B	CF103	87-A91-702-010		FLTR,CFM2 450BL
	C111	87-A10-827-080	C-CAP,U 0.47-6.3 K B	J101	8A-RCL-608-010		JACK,TC38 ST W/O SW
	C112	87-010-079-010	100UF,6.3V ELECTROLYTIC	L1	8A-RCL-606-010		COIL,BAR-ANT
	C113	87-010-079-010	100UF,6.3V ELECTROLYTIC	L101	87-003-097-080		COIL,1UH
	C116	87-012-286-080	CAP, U 0.01-25	L102	87-003-097-080		COIL,1UH
	C117	87-012-159-080	C-CAP,S 24P-50 SL	L103	87-003-050-010		COIL,47UH
	C118	87-010-184-080	C-CAP,S 3300P-50 B	L104	8A-RCL-601-010		COIL,FM RF
	C119	87-010-831-080	C-CAP,U,0.1-16F	L106	8A-RCL-602-010		COIL,FM OSC
	C120	87-010-831-080	C-CAP,U,0.1-16F	L107	87-003-098-010		COIL,2.2UH
	C121	87-A10-827-080	C-CAP,U 0.47-6.3 K B	L115	87-003-105-080		INDUCTOR,0.22UH
	C122	87-012-268-080	C-CAP,U 330P-50 B	PVC101	87-A90-181-010		TUN-CAP,20-80-160 16X16
	C123	87-A10-504-080	C-CAP,U 0.047-16 K B	SFR101	8A-RCL-610-010		SFR,10K
	C124	87-010-831-080	C-CAP,U,0.1-16F	SW101	87-036-322-010		SW,SL 2-2-3
	C125	87-A10-827-080	C-CAP,U 0.47-6.3 K B	SW102	87-A91-152-010		SW,SL 1-1-2 SSSS212-11-A
	C126	87-010-192-080	C-CAP,S 0.022-50 F	T101	8A-RCL-603-010		COIL,FM IFT
	C127	87-012-273-080	C-CAP,U 820P-50 B	T102	8A-RCL-604-010		COIL,AM IFT
	C128	87-012-268-080	C-CAP,U 330P-50 B	T103	8A-RCL-605-010		COIL,AM OSC
				TC101	S1-000-200-010		TRIMMER CAP,20P
				VR101	8A-RCL-609-010		VR,RTRY 50KAX2

○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち

Chip Resistor Part Coding

8 8 -

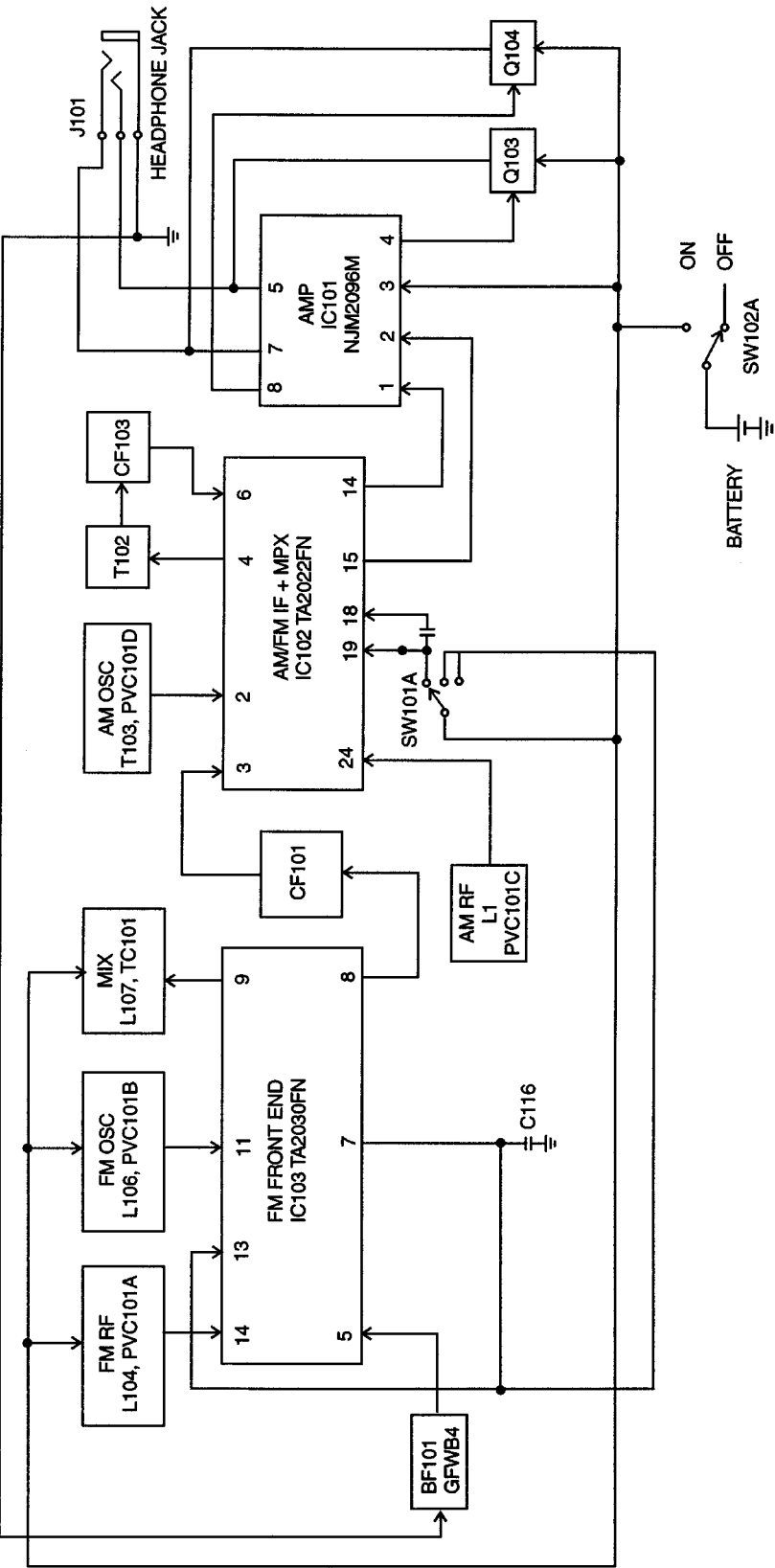
A
抵抗部品コード
Resistor Code

桁表示
Figure
抵抗値
Value of resistor

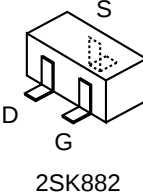
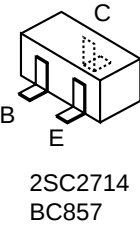
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)				抵抗コード : A Resistor Code : A
				外形／Form	L	W	t	
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

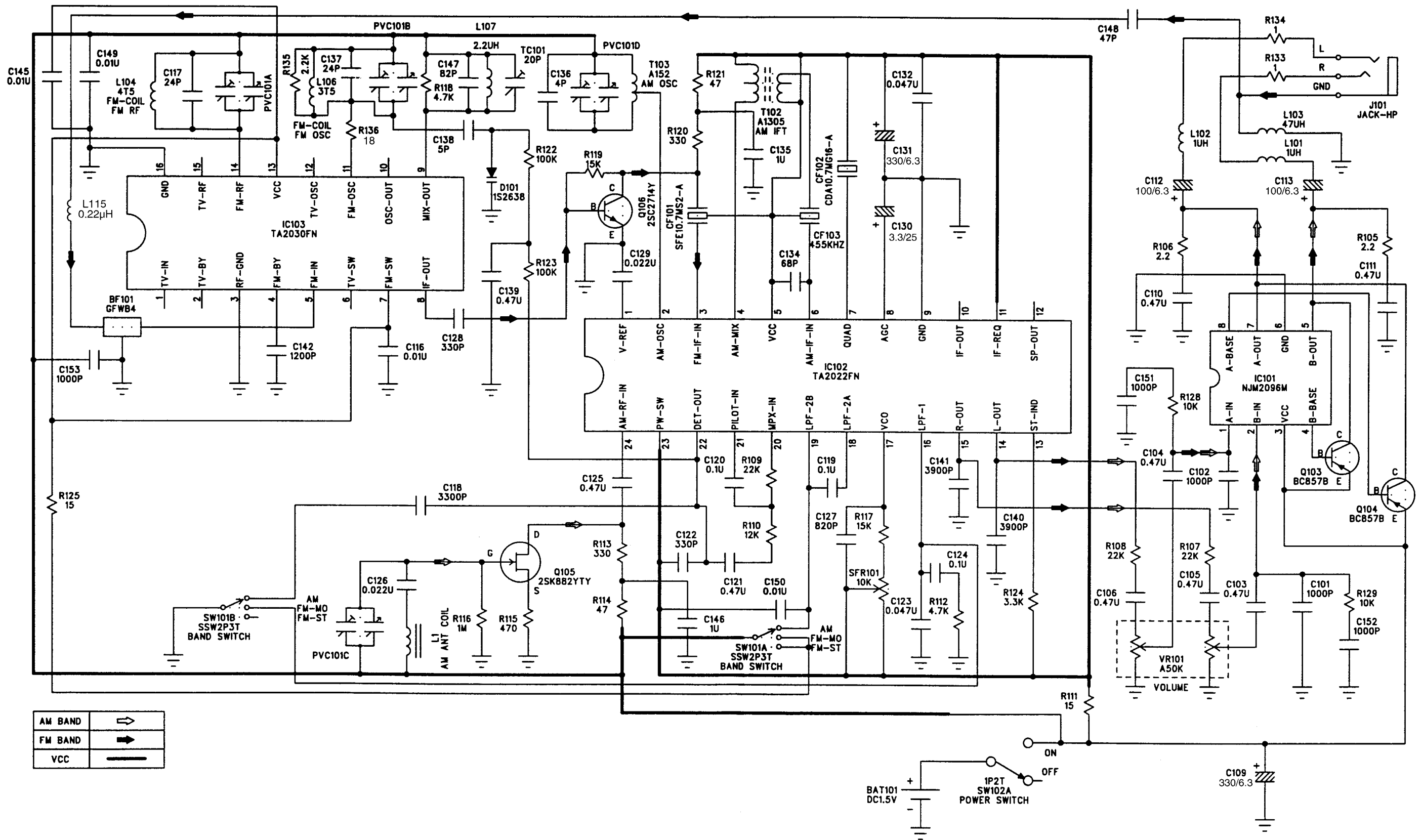
BLOCK DIAGRAM



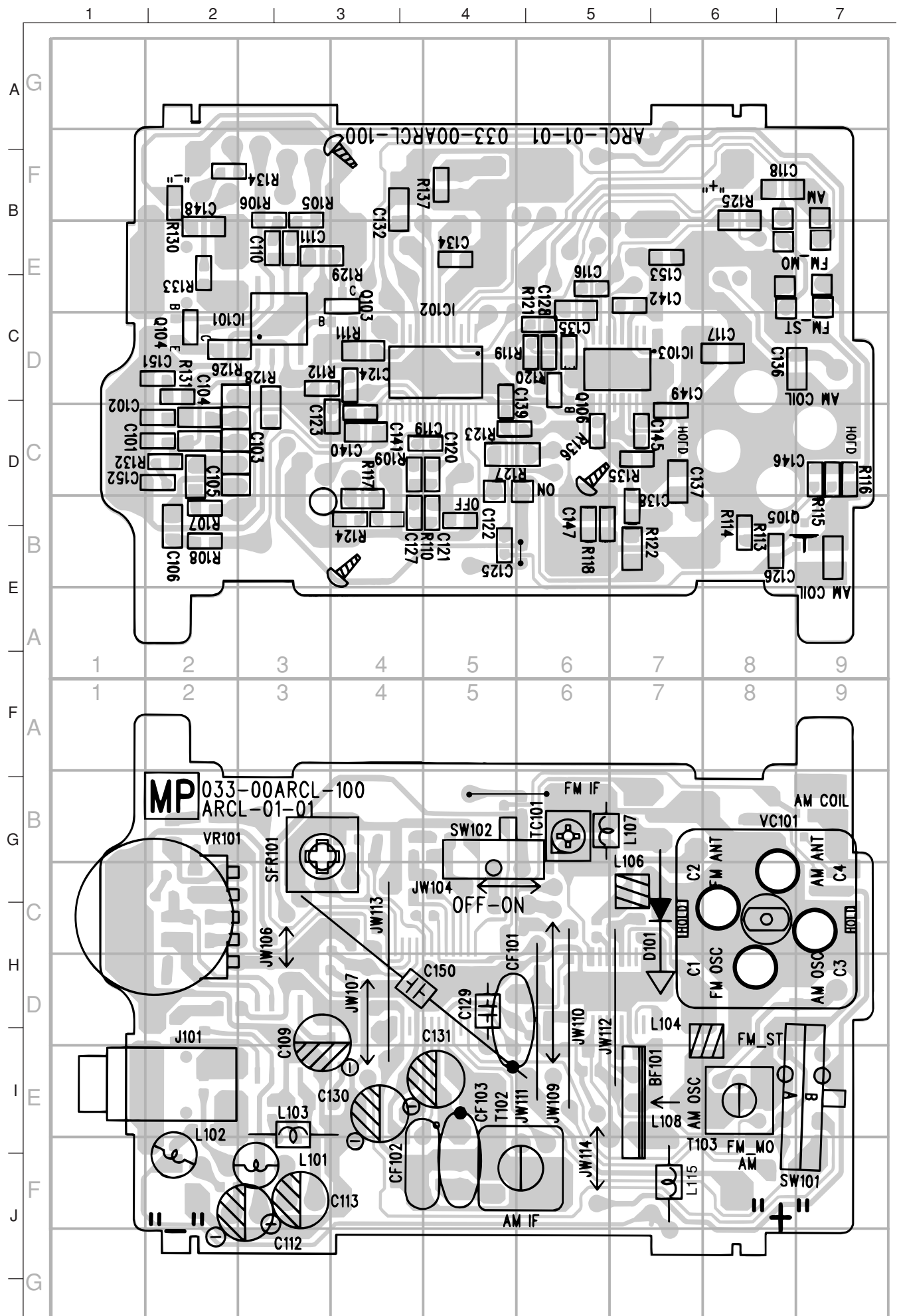
TRANSISTOR ILLUSTRATION



SCHEMATIC DIAGRAM



WIRING



VOLTAGE CHART

IC103 (TA2030)

PIN'S NUMBER	1	2	3	4	5	6	7	8
FM	0	0.09	0	0.82	0.07	0.33	1.53	1.51
PIN'S NUMBER	9	10	11	12	13	14	15	16
FM	1.59	1.46	1.58	0.94	1.53	1.58	0.93	0

IC102 (TA2022FN)

PIN'S NUMBER	1	2	3	4	5	6	7	8	9	10	11	12
FM	0.88	1.58	0.88	1.44	1.43	1.44	1.42	0.79	0	1.44	1.42	0
AM	0.86	1.54	0.86	1.46	1.46	1.46	1.46	0.58	0	1.46	1.46	2.52
PIN'S NUMBER	13	14	15	16	17	18	19	20	21	22	23	24
FM	0.79	0.45	0.44	0.66	1.33	0	0	0.09	0	0.77	1.42	0.01
AM	1.37	0.45	0.45	0.05	0.80	0	1.54	0	0.03	0.74	1.46	0.87

IC101 (NJM2096M)

PIN'S NUMBER	1	2	3	4	5	6	7	8
FM	0	0	1.57	0.89	0.70	0	0.70	0.89

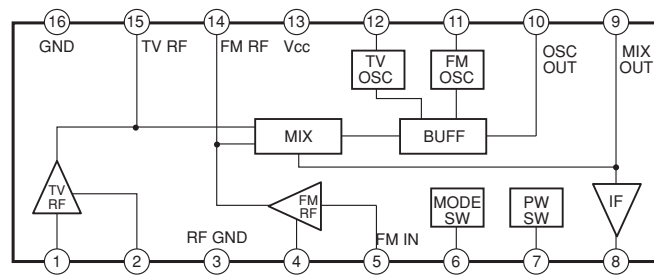
TRANSISTOR	Q105 (2SK882YTY)		
	S	D	G
AM	0.42	1.21	0
FM	0.42	1.22	0

TRANSISTOR	Q106(2SC2714)		
	E	C	B
FM	0	0.89	0.72

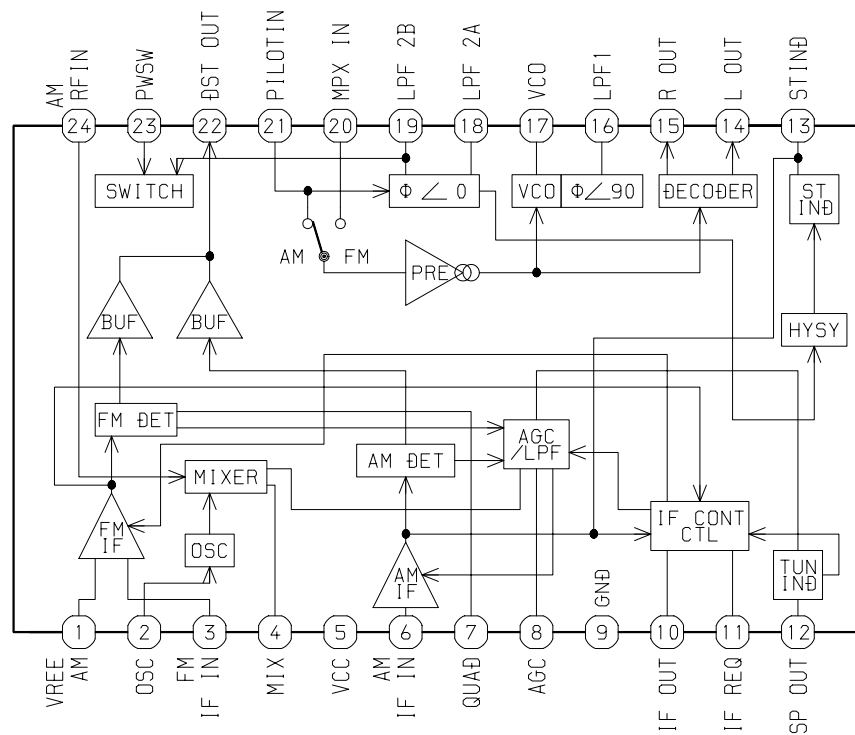
TRANSISTOR	Q103(BC857B)			Q104(BC857B)		
	E	C	B	E	C	B
FM	1.55	0.70	0.88	1.55	0.70	0.88

IC BLOCK DIAGRAM

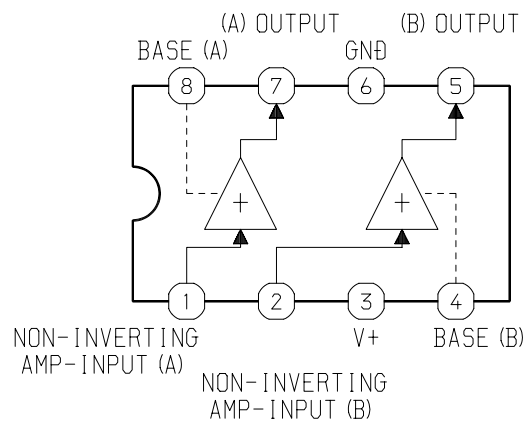
IC, TA2030FN



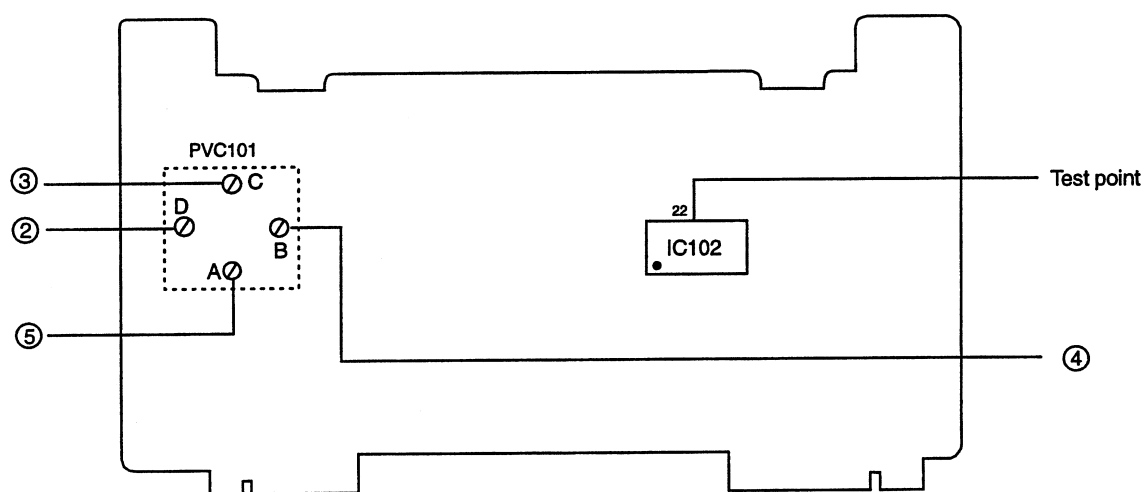
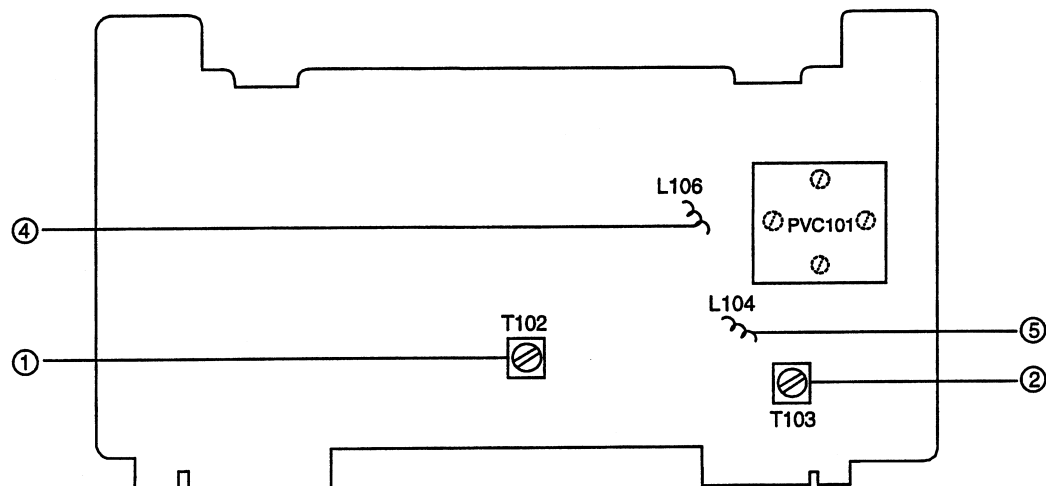
IC, TA2022FN



IC, NJM2096M



ELECTRICAL ADJUSTMENT



1. AM IF Adjustment

Test point: IC102(TA2022FN) 22 PIN

Adjustment location: T102

T102 ----- 455 kHz

2. AM Frequency Range Adjustment

Test point: IC102(TA2022FN) 22 PIN

Adjustment location: T103, PVC101D

T103----- 517 KHz

PVC101D----- 1750 KHz

3. AM Tracking Adjustment

Test point: IC102(TA2022FN) 22 PIN

Adjustment location: AM ANT(L1) PVC101C

AM ANT----- 600 KHz waveform max.

PVC101C----- 1400 KHz waveform max.

4. FM Frequency Range Adjustment

Test point: IC102(TA2022FN) 22 PIN

Adjustment location: L106, PVC101B

L106 ----- 87 MHz

PVC101B----- 109 MHz

5. FM Tracking Adjustment

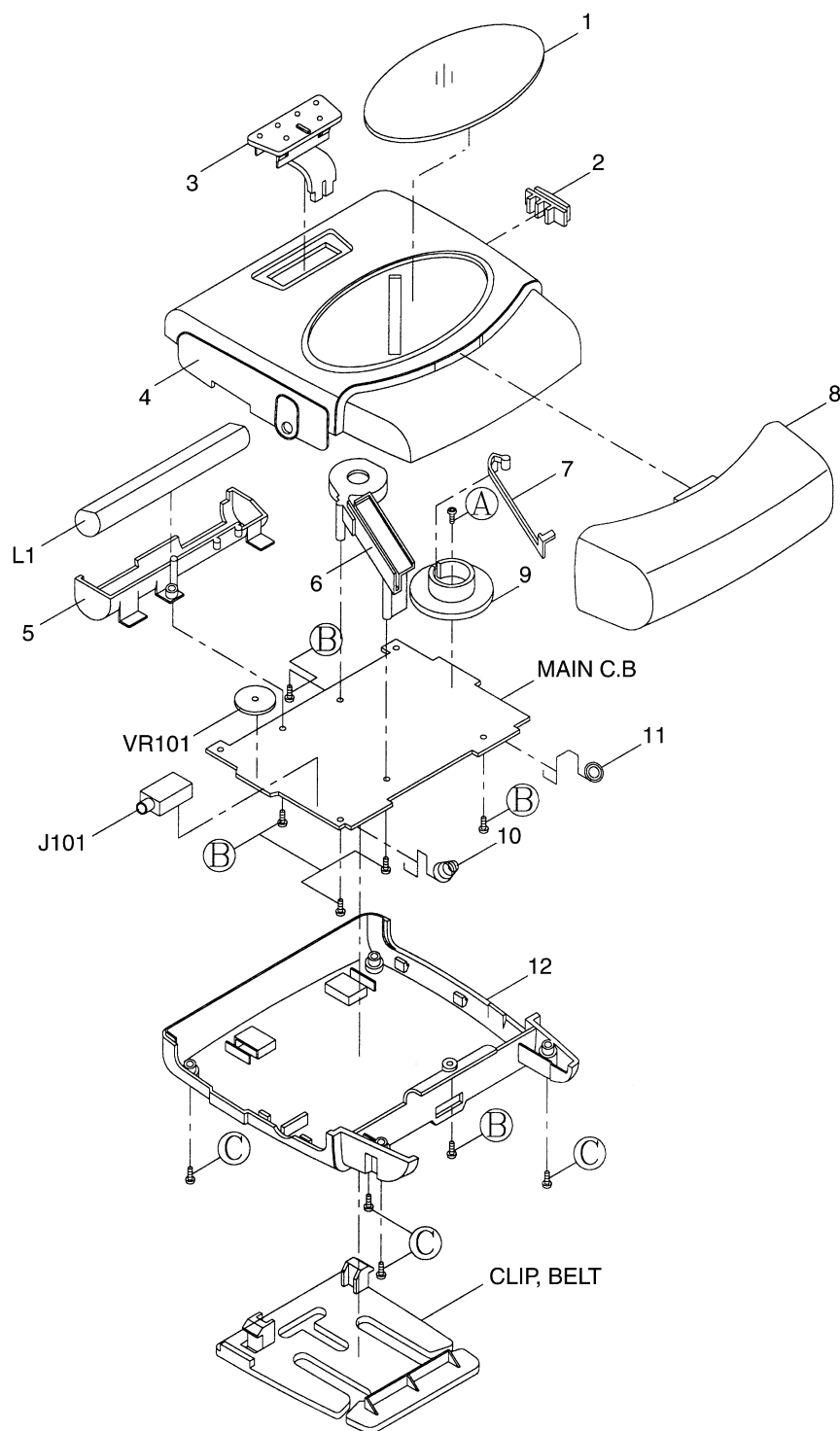
Test point: IC102(TA2022FN) 22 PIN

Adjustment Location: L104, PVC101A

L104----- 88 MHz waveform max.

PVC101A----- 108 MHz waveform max.

MECHANICAL EXPLODED VIEW 1/1



MECHANICAL MAIN PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
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REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-RCL-003-010		WINDOW, TUNE YU	12	8A-RCL-002-010		CABI, REAR YU
2	8A-RCL-013-010		KNOB, SL BAND YZ	A	87-266-525-310		SCREW V+2-3
3	8A-RCL-014-010		KNOB, SL POW YZ	B	87-354-529-310		VT2+1.7-4
4	8A-RCL-001-010		CABI, FRONT YU	C	87-B10-026-010		VT2+1.7-8 CR HL
5	8A-RC7-201-010		HLD, ANT				
7	8A-RCL-008-010		POINTER,				
8	8A-RCL-009-010		LID, BATT				
9	8A-RCL-007-010		KNOB, RTRY TUNE				
10	8A-RCL-203-010		BAT-CONTACT, (-)				
11	8A-RCL-202-010		BAT-CONTACT, (+)				

