

SN: 9CD8306100

Service Manual

PORTABLE STEREO CD RADIO CASSETTE RECORDER

Model : SP-702AG
SP-702AU



DAEWOO **DAT** CO., LTD.

Feb. 2008

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Safety Precautions

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

	CAUTION RISK OF ELECTRIC SHOCKS DO NOT OPEN	
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		
	THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.	
	THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.	

CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

LASER SAFETY

THIS UNIT EMPLOYS A LASER. ONLY QUALIFIED SERVICE PERSONNEL SHOULD REMOVE THE COVER OR ATTEMPT TO SERVICE THIS DEVICE DUE TO POSSIBLE EYE INJURY.

CAUTION : USE OF ANY CONTROLS, ADJUSTMENTS, OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION : TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION : POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

Important Safety Instructions

- All the safety and operating instructions should be read before the appliance is operated.
 - The safety and operating instructions should be retained for future reference.
 - All warnings on the appliance and in the operating instructions should be adhered to.
 - All operating and use instructions should be followed.
1. Water and Moisture - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink,

laundry tub, in a wet basement, or near a swimming pool, and the like.

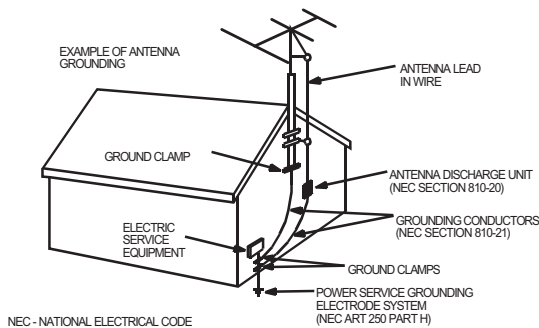
PORTABLE CART



Figure 2

2. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer.
3. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
4. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
5. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
6. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
7. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
8. Grounding or Polarization - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.
9. Power - Cord Protection - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
10. Protective Attachment Plug - If the appliance is equipped with an attachment plug having overload protection. This is a safety feature. See Instruction Manual for replacement or resetting of protective device. If replacement of the plug is required, be sure the service technician has used a replacement plug specified by the manufacturer that has the same overload protection as the original plug.
11. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
12. Power Lines - An outdoor antenna should be located away from power lines.

13. Outdoor Antenna Grounding - If an outside antenna is connected to the receiver be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes and requirements for the grounding electrode. See Figure 1.



14. Non-use Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

15. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

16. Damage Requiring Service - The appliance should be serviced by qualified service personnel when:

- a) The power-supply cord or the plug has been damaged; or
- b) Objects have fallen, or liquid has been spilled into the appliance; or
- c) The appliance has been exposed to rain; or
- d) The appliance does not appear to operate normally or exhibits a marked change in performance; or
- e) The appliance has been dropped, or the enclosure damaged.

17. Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

Specifications

2

▶ GENERAL

Power Supply : AC 120/127V 60Hz for America
AC 220/230V 50Hz for Europe

Power Consumption : 13 Watt

Output Power(RMS) : 2 W x 2

Terminal impedance : Speaker 4 ohm / Phones 32 ohm

Unit Dimensions : 343 (L) x 240 (W) x 148 (H) mm

Net Weight : 2.2 kg

Gross Weight : 2.6 kg

2

▶ CASSETTE SECTION

Tape Speed : 4.75 cm/sec

Recording System : AC BIAS

Erasing System: MAGNET

Frequency Response : 125 ~ 6300 Hz

▶ CD SECTION

Channels : 2 Channels

S/N Ratio : 50 dB

Sampling Frequency : 44.1 kHz

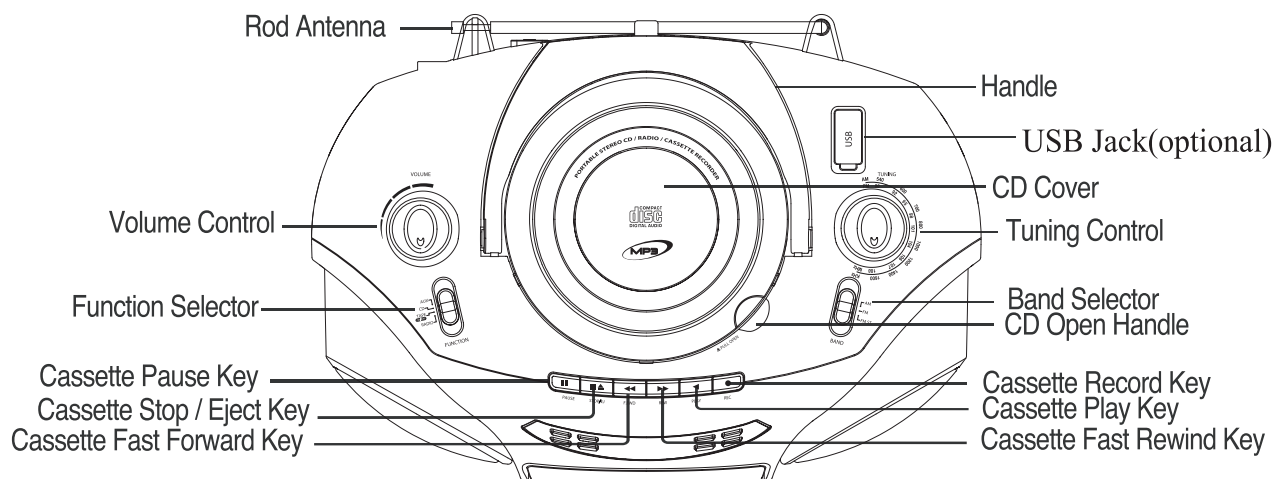
▶ RADIO SECTION

Tuning Frequency AM : 530 ~ 1,620 KHz for Europe / AM : 530 ~ 1,710 KHz for America

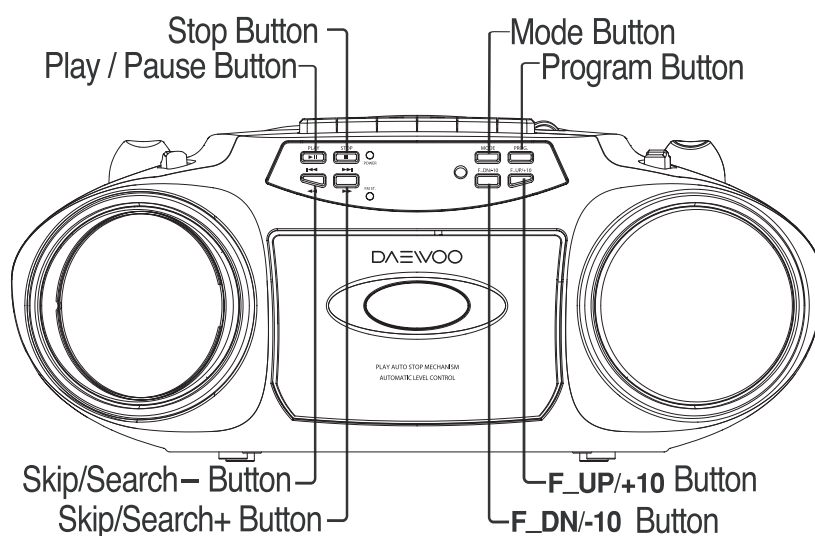
FM : 87.5 ~ 108 MHz

Location of Users Controls

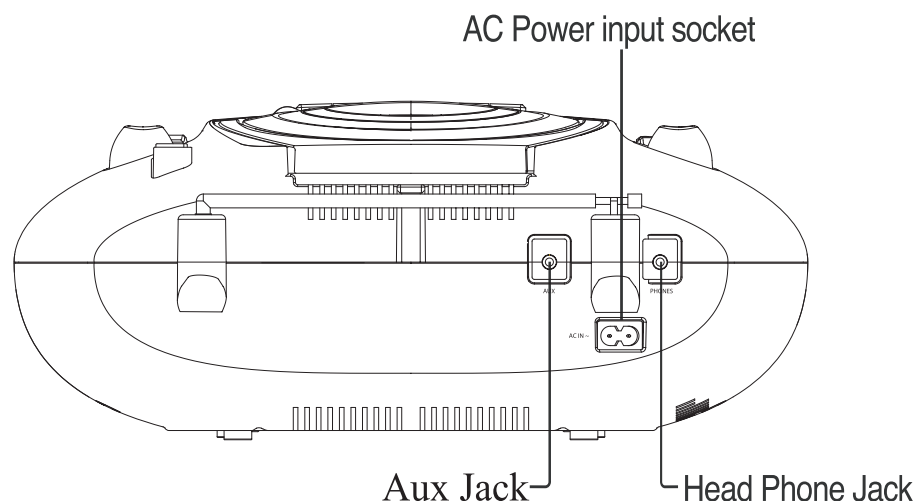
▶ TOP View



▶ FRONT View

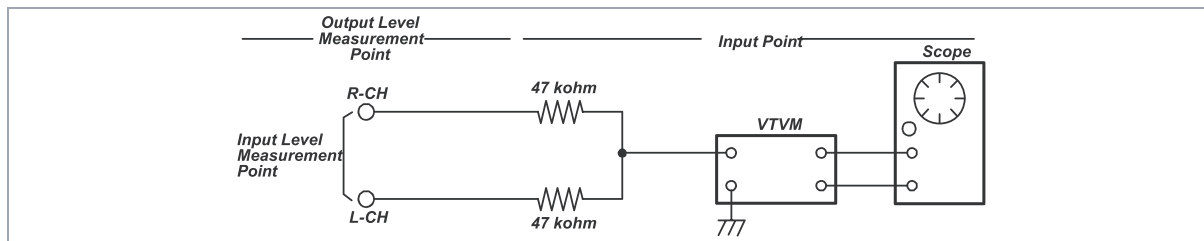


▶ REAR View



Adjustments

• TAPE Section



Test Tape be used

Tape	Contents	Use
MTT-111N	3 KHz	Tape Speed Adjustment
MTT-114N	10 KHz	Head Azimuth Adjustment
MTT-5511	Blank	Record Frequency Property

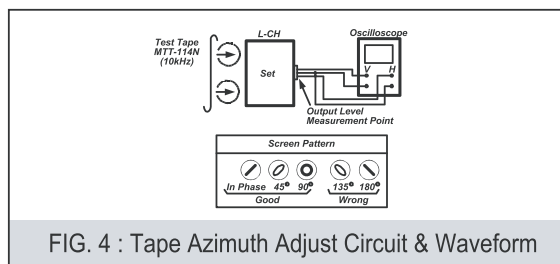
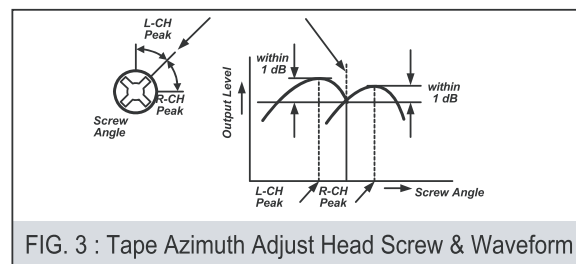
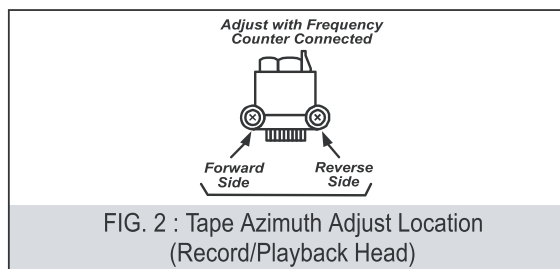
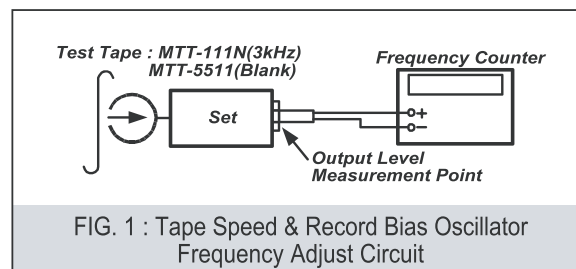
HEAD ADJUSTMENT (AZIMUTH)

1. 10KHz test tape(example: MTT-114N) must be used for this adjustment.
2. Connect to VTVM or oscilloscope to the headphone jack or speaker terminal.
3. Press the play button.
4. Adjust the azimuth by using a screw driver to maintain the max. L&R output voltage.
5. Please secure the azimuth position by using locking paint.

RECORDING BIAS OSCILLATOR FREQUENCY ADJUSTMENT

1. Connect the frequency counter to CE614(—)pin, GND.
2. Press the REC button.
3. Adjust L600 to obtain 80 KHz $\pm$ 0.5

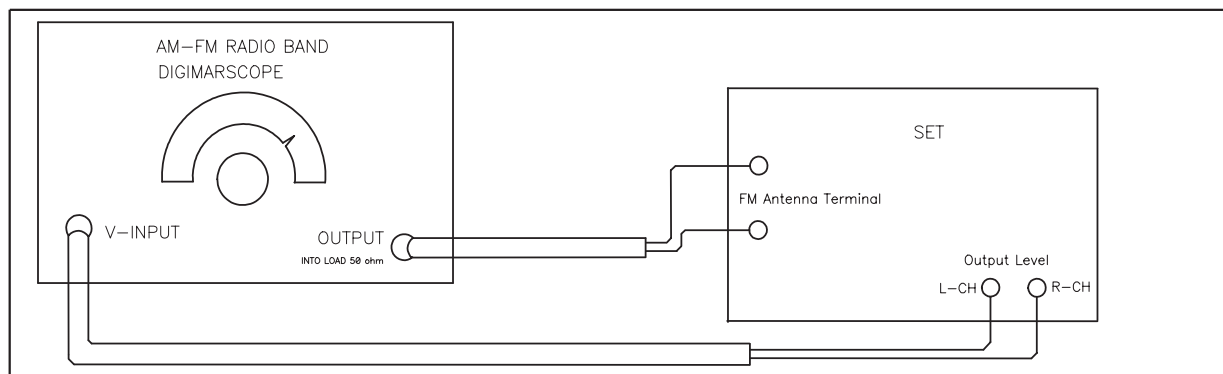
TAPE ALIGNMENT CHART								
Step	Item		Reference Value	Test Tape	Adjust Point	Test Point	Note	FIG.
1	Tape Speed Adjustment	Normal	2,960~3,020Hz	MTT-111N	Cass Deck Motor	Line Out L/R Channel	Confirm Wow & Flutter (within 0.35%)	FIG.1
			2,960~3,020Hz	MTT-111N	Cass Deck Motor	Line Out L/R Channel	Confirm Tape Speed of end position after adjustment at tape start position	FIG.1
2	Azimuth Adjustment		Maximum Level Phase:Within90°	MTT-114N	Head Screw	Line Out L/R Channel		FIG.2,3,4
3	Recording Bias Oscillator Frequency Adjustment		80 KHz±0.5	MTT-5511	L600	CE614(—)pin,GND	Adjust with frequency counter connected.	FIG.1



Adjustments

• TUNER Section

FM TEST EQUIPMENT



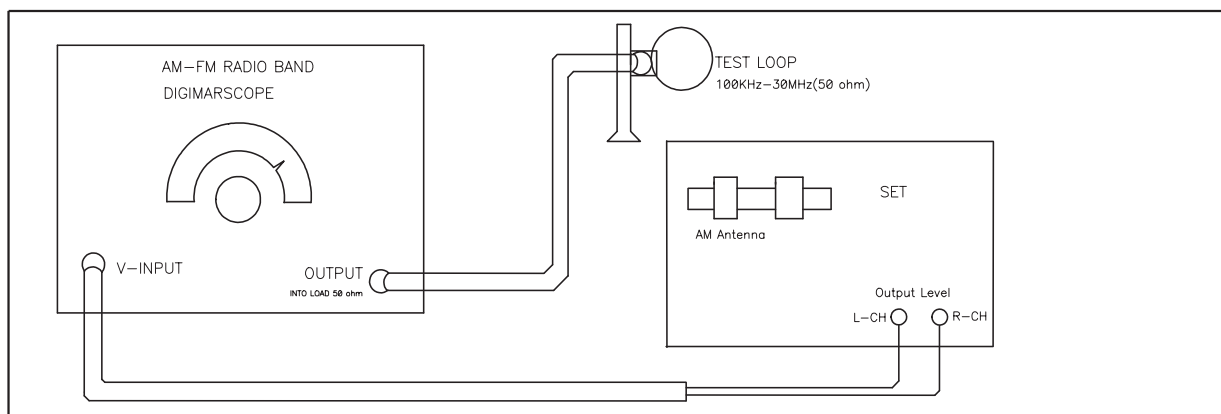
1. Adjust L003 to obtain $87.5\text{MHz} \pm 0.5$.
2. Adjust PVC2(FM OSC) to obtain $108\text{MHz} \pm 0.5$.
3. Adjust L003 to obtain maximal waveform for 90MHz.
4. Adjust PVC1(FM ANT) to obtain maximal waveform for 106MHz.

Item	Input Circuit Setup	Output Circuit Setup	S.S.G setting	Adjust point	Adjustment
FM Frequency Range Adjustment	Connect output signal generator to FM ANT terminal of D001(–) pin	Connect V-Input signal generator to CE106/CE107 pin	87.5MHz Dev.26dB	L002	Adjust for $87.5\text{MHz} \pm 0.5$.
			108MHz Dev.26dB	PVC2(FM OSC)	Adjust for $108\text{MHz} \pm 0.5$.
FM RF	Connect output signal generator to FM ANT terminal of D001(–) pin	Connect V-Input signal generator to CE106/CE107 pin	90MHz Dev.26dB	L003	Adjust maximal waveform for 90MHz
			106MHz Dev.26dB	PVC1(FM ANT)	Adjust maximal waveform for 106MHz

Trouble Shooting Guide

• TUNER Section

AM TEST EQUIPMENT

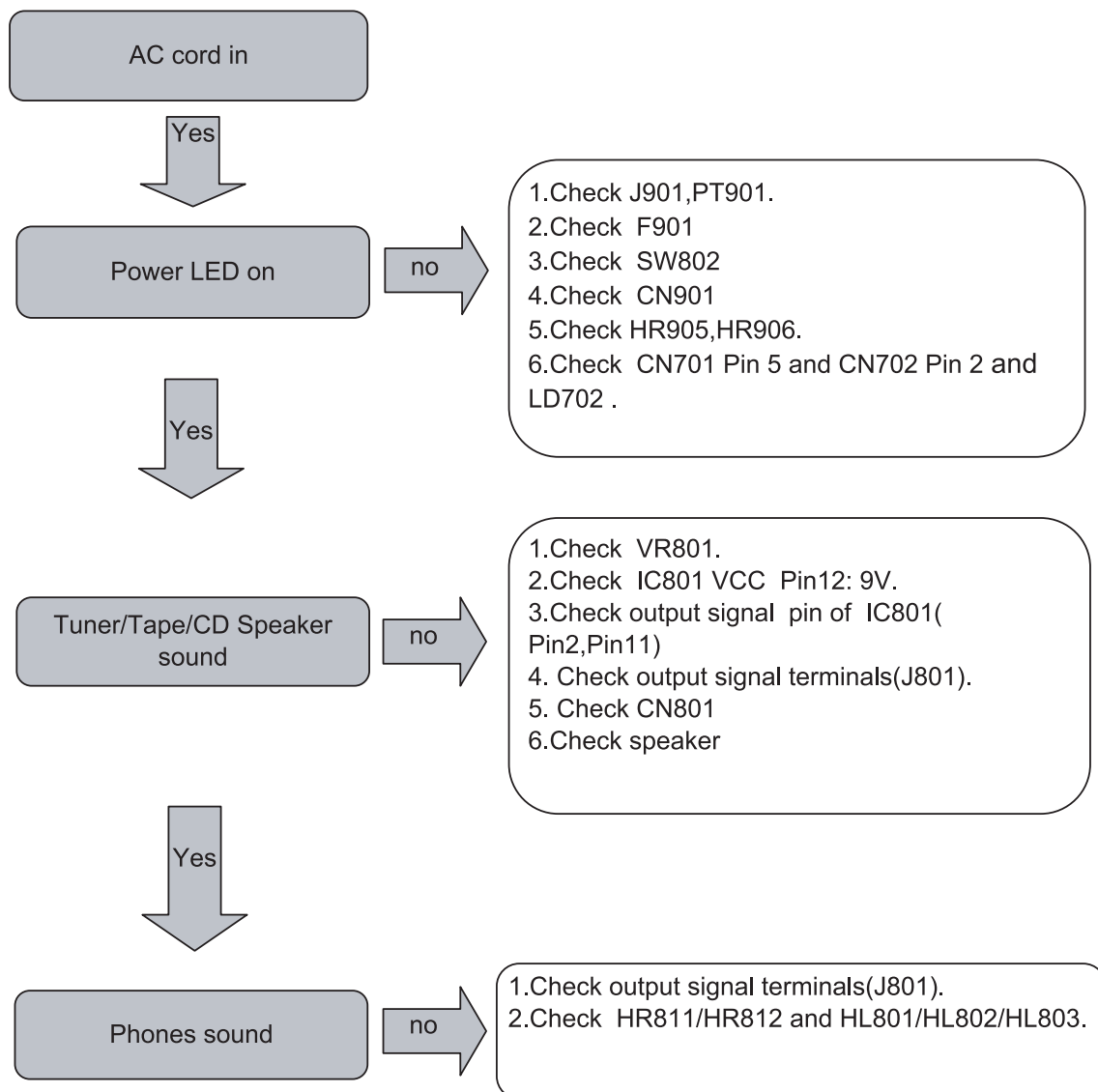


1. Adjust L011 to obtain 530KHz $\pm$ 10.
2. Adjust PVC4(AM OSC) to obtain 1620KHz $\pm$ 30.
3. Adjust Coil AM ANT to obtain maximal waveform for 600KHz.
4. Adjust PVC3(AM ANT) to obtain maximal waveform for 1400KHz.

Item	Input Circuit Setup	Output Circuit Setup	S.S.G setting	Adjust point	Adjustment
AM Frequency Range Adjustment	Connect output signal generator to test loop	Connect V-Input signal generator to CE106/CE107 pin	530KHz Dev.60dB	L011	Adjust for 530KHz $\pm$ 10.
			1620KHz Dev.60dB	PVC4(AM OSC)	Adjust for 1620KHz $\pm$ 30.
AM RF	Connect output signal generator to test loop	Connect V-Input signal generator to CE106/CE107 pin	600KHz Dev.60dB	Coil AM ANT	Adjust maximal waveform for 600KHz
			1400KHz Dev.60dB	PVC3(AM ANT)	Adjust maximal waveform for 1400KHz

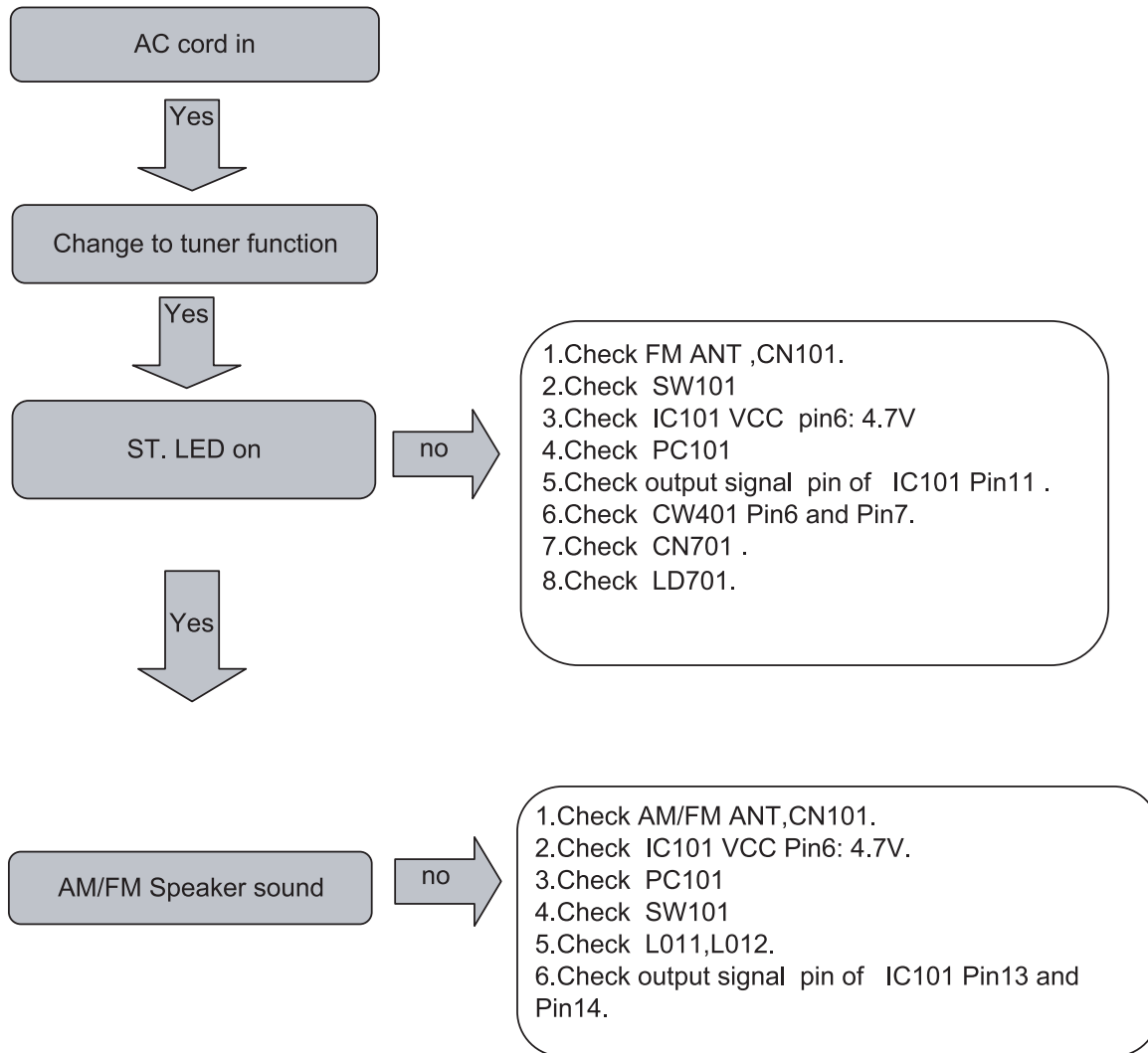
Trouble Shooting Guide

• POWER & AMP Section



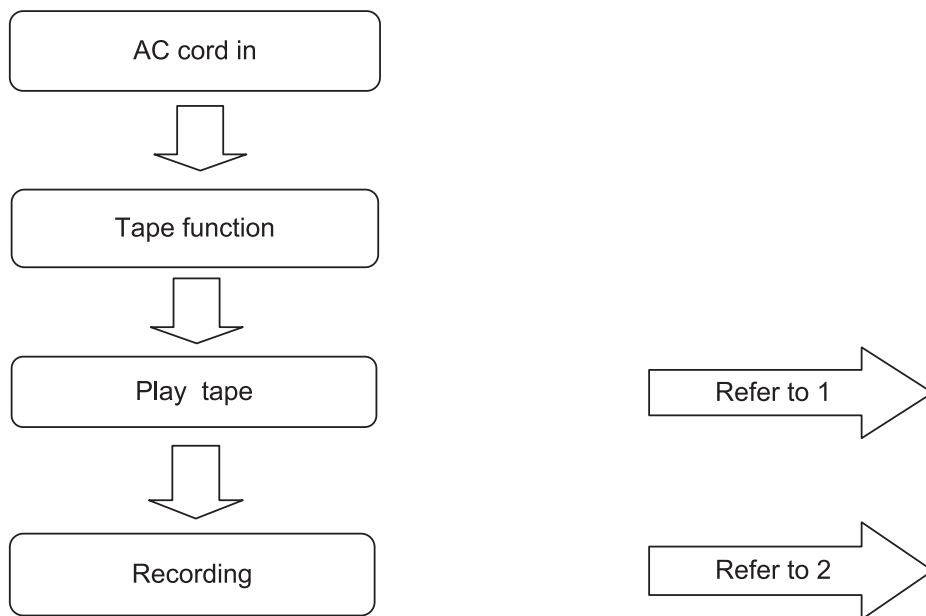
Trouble Shooting Guide

• TUNER Section

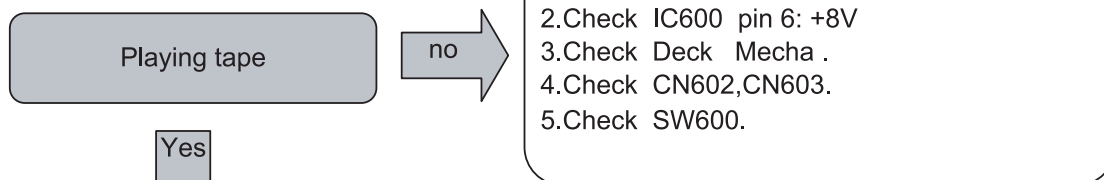


Trouble Shooting Guide

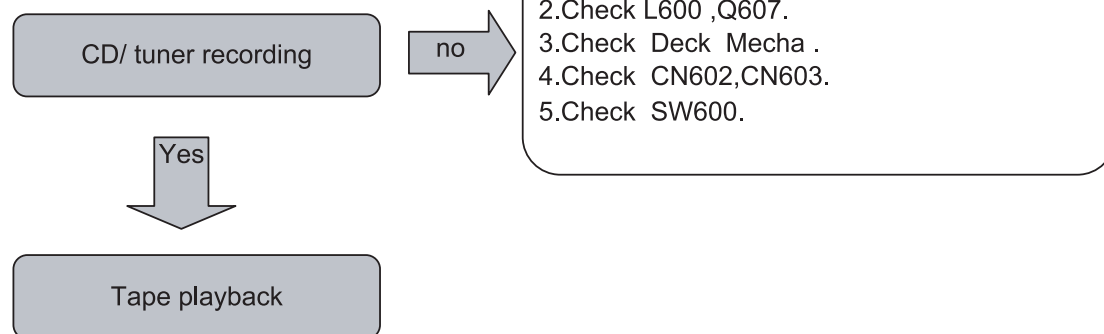
• TAPE Section



1.Play tape

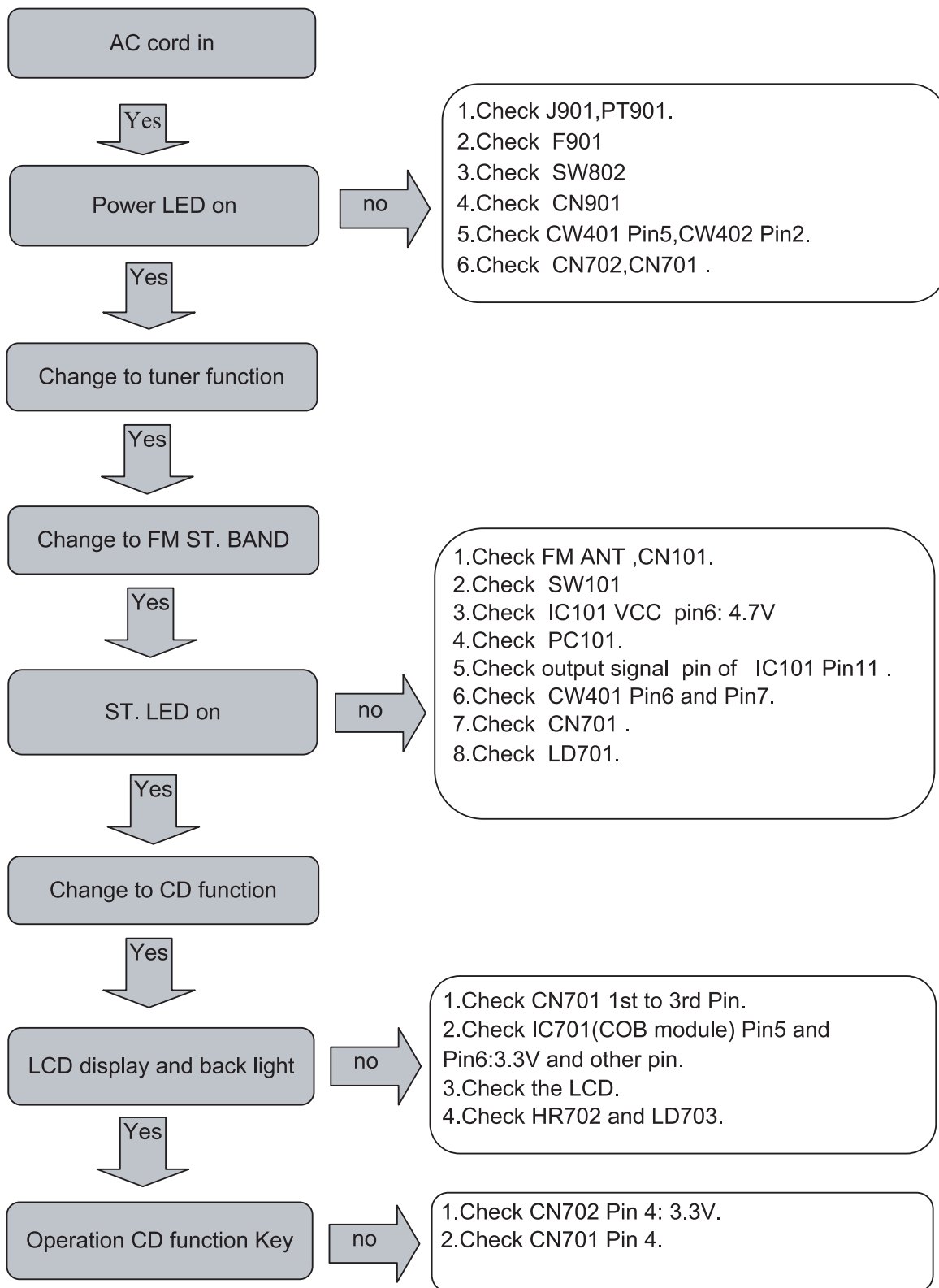


2.Recording



Trouble Shooting Guide

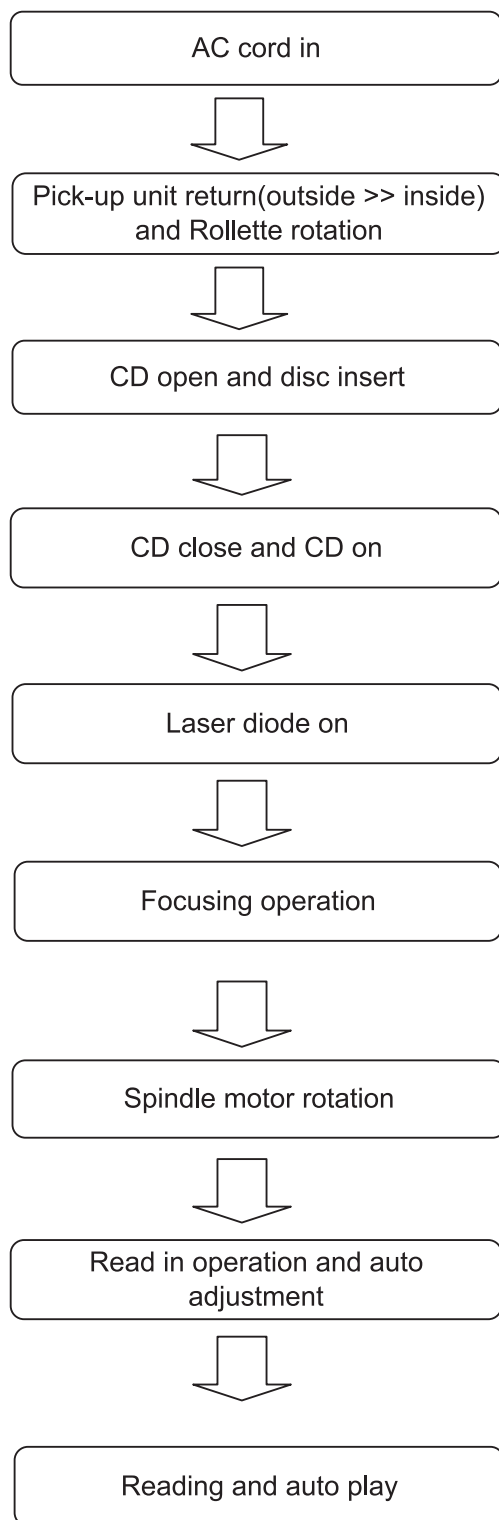
• FRONT Section



Trouble Shooting Guide

• CD/MP3 Section

5



CD start

Refer to 1

Refer to 2

CD play on

Refer to 3

Refer to 4

Refer to 5

Refer to 6

Auto to play

5

Trouble Shooting Guide

• CD/MP3 Section

1. Pick-up unit return

AC cord in

Yes

Function to CD
and Initializing CD

no

Yes

CD open and disc insert

1. Check SW802
2. Check Q901 collector: +8V
3. Check Q501 and Q502 collector: +3.3V
4. Check +3.3V (IC500 pin11/21/25/29/40/63/119)
5. Check (IC506 SA1469 11th, 12th) SP+ 4.41V, SP- 3.41V
6. Check SPDO +1.90V (IC500 M5671 pin126)
7. Check (IC506 SA1469 pin1, pin2) SL- 3.81V, SL+ 3.91V.
8. Check CD Board (Around IC solder short, cold soldering)
9. Check CN501, CN503.

2. CD open and disc insert

CD open and disc
insert

Yes

CD close and cd on

no

1. Check SW501.

3. Laser diode on

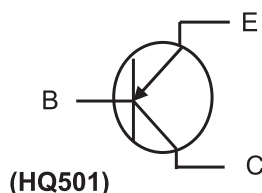
Laser diode on

no

1. Check +1.8V LD on (HQ501 collector)
2. Check +2.1V (HQ501 base pin) >>> in case of play

Yes

Focusing operation



	STOP	PLAY
C	0V	1.8V
B	3.3V	2.1V
E	3.3V	2.8V

4. Focusing operation

Focusing
operation

no

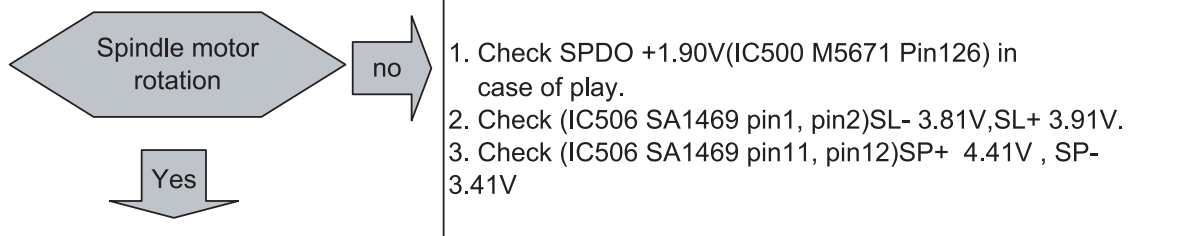
1. Check (IC506 SA1469 pin17, pin18) pin17 3.95V >> 3.99V, pin18 3.72V >> 3.75V >>> in case of play
2. Check +1.58V (IC500 M5671 pin1)

Yes

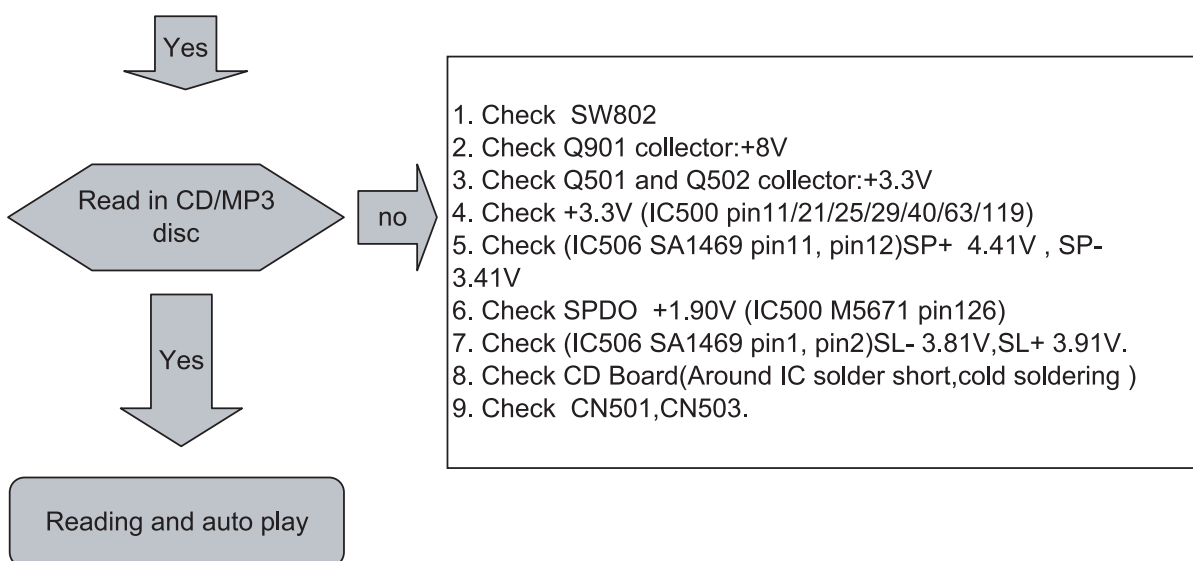
Trouble Shooting Guide

• CD/MP3 Section

5. Spindle motor rotation

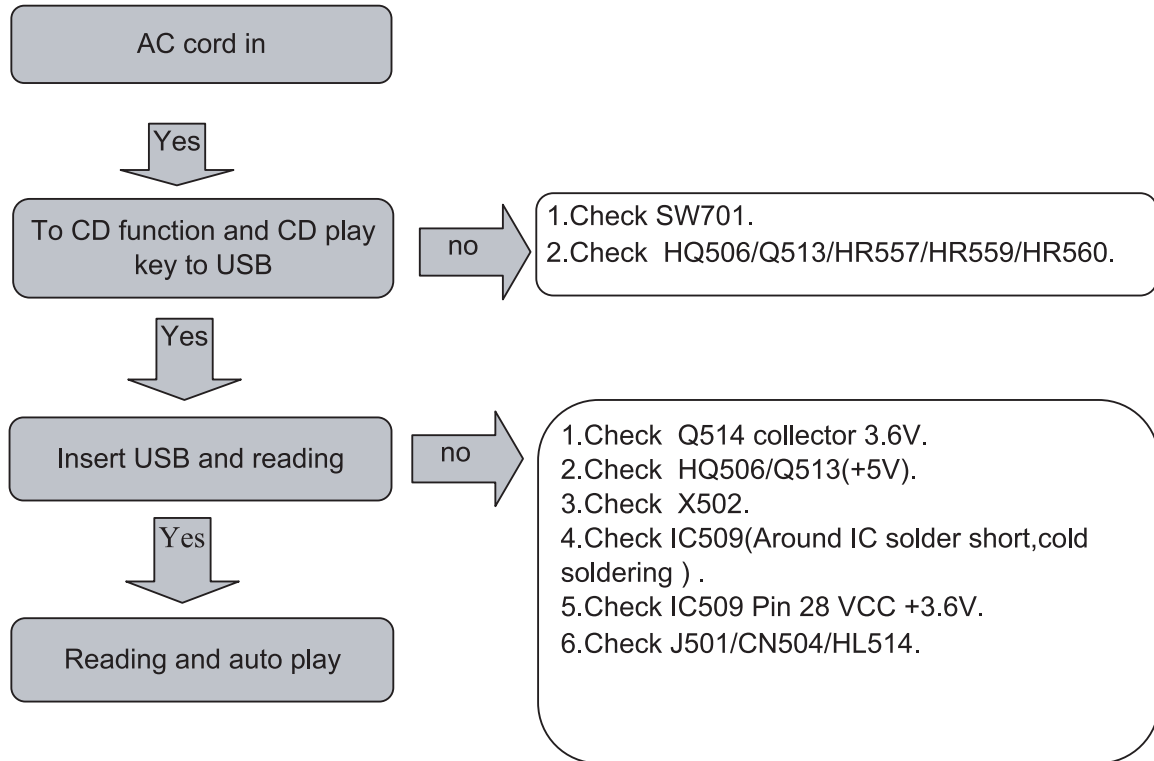


6. Read in operation

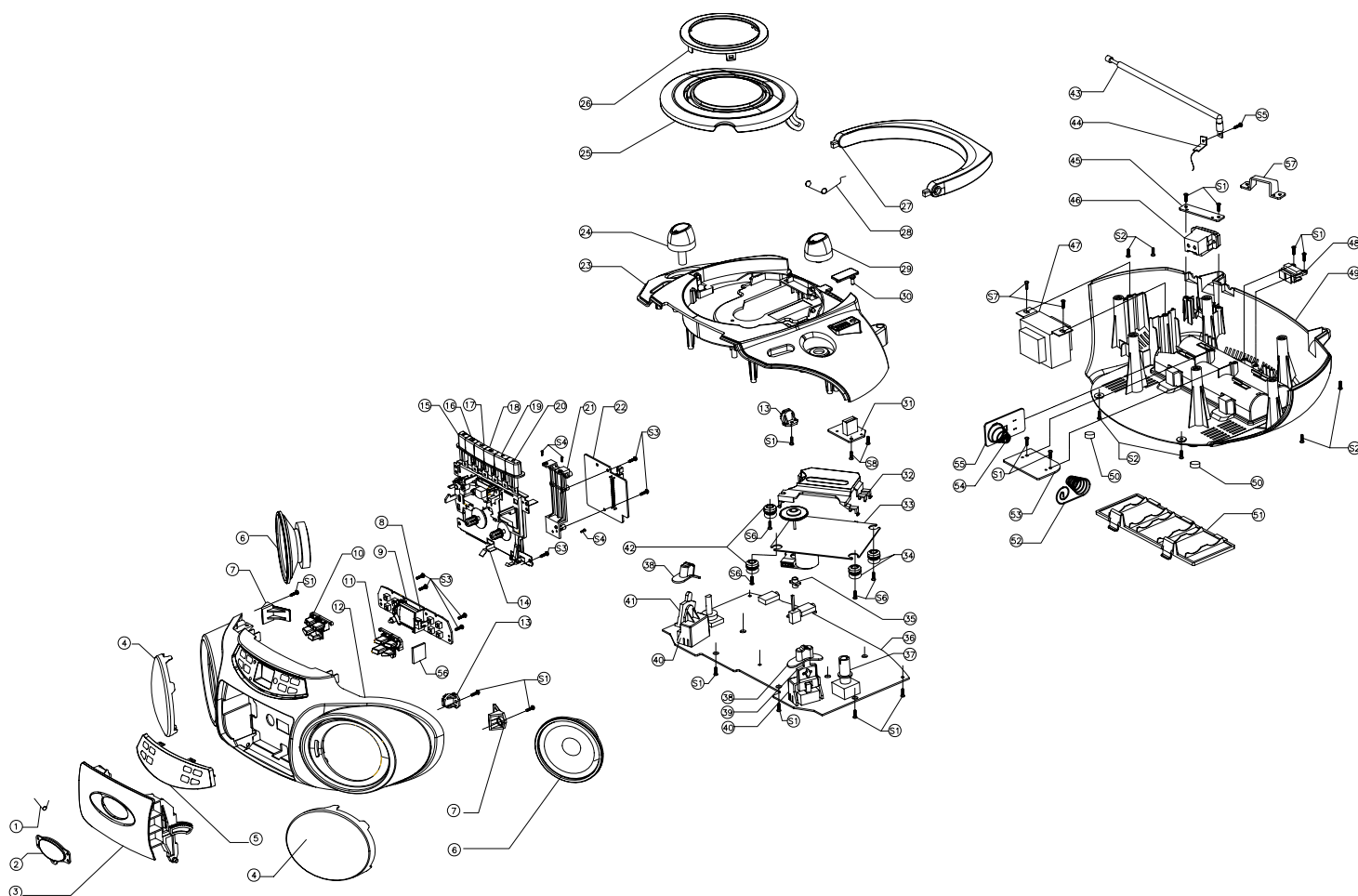


Trouble Shooting Guide

• USB Section



Exploded view and parts list

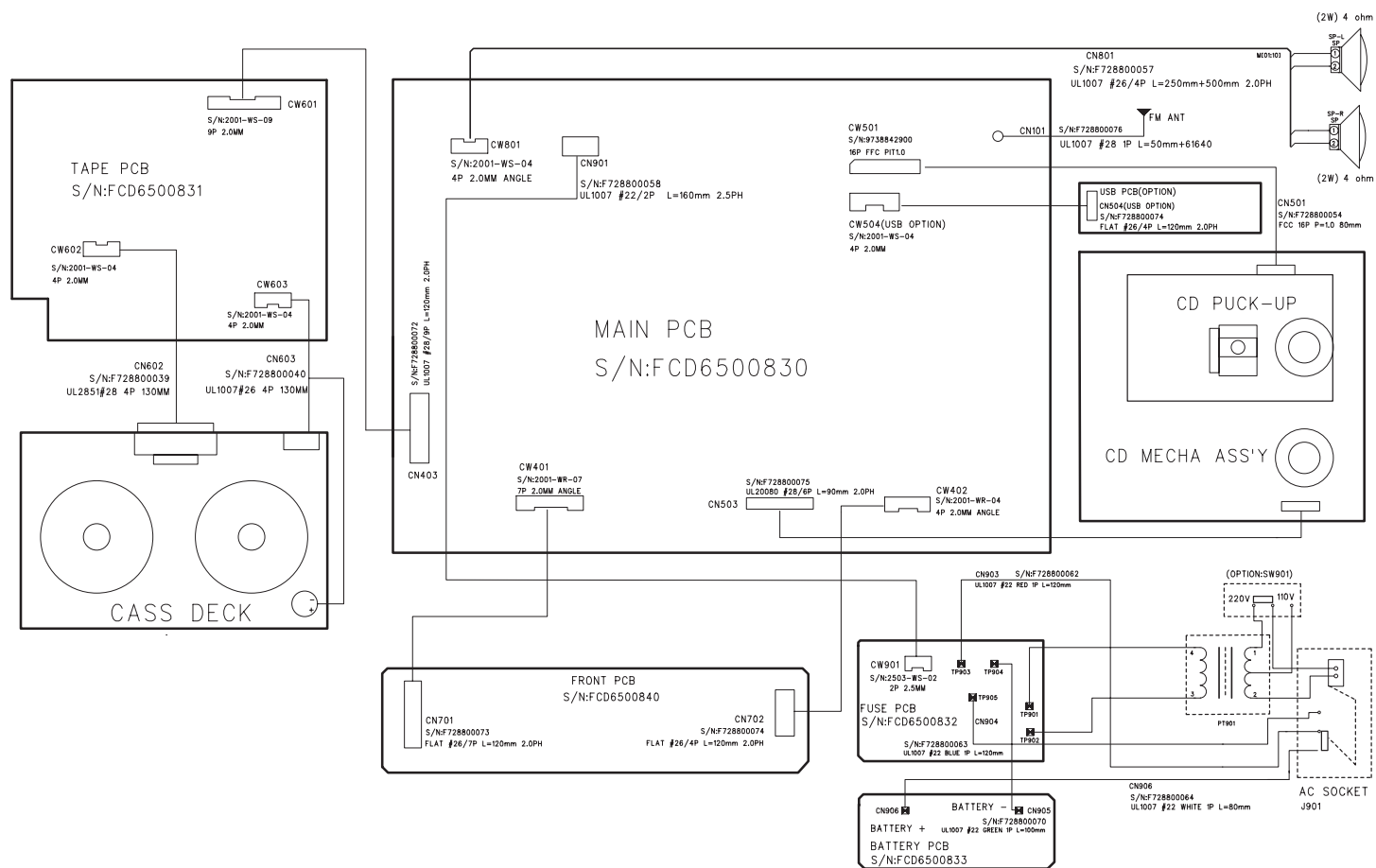


Exploded view and parts list

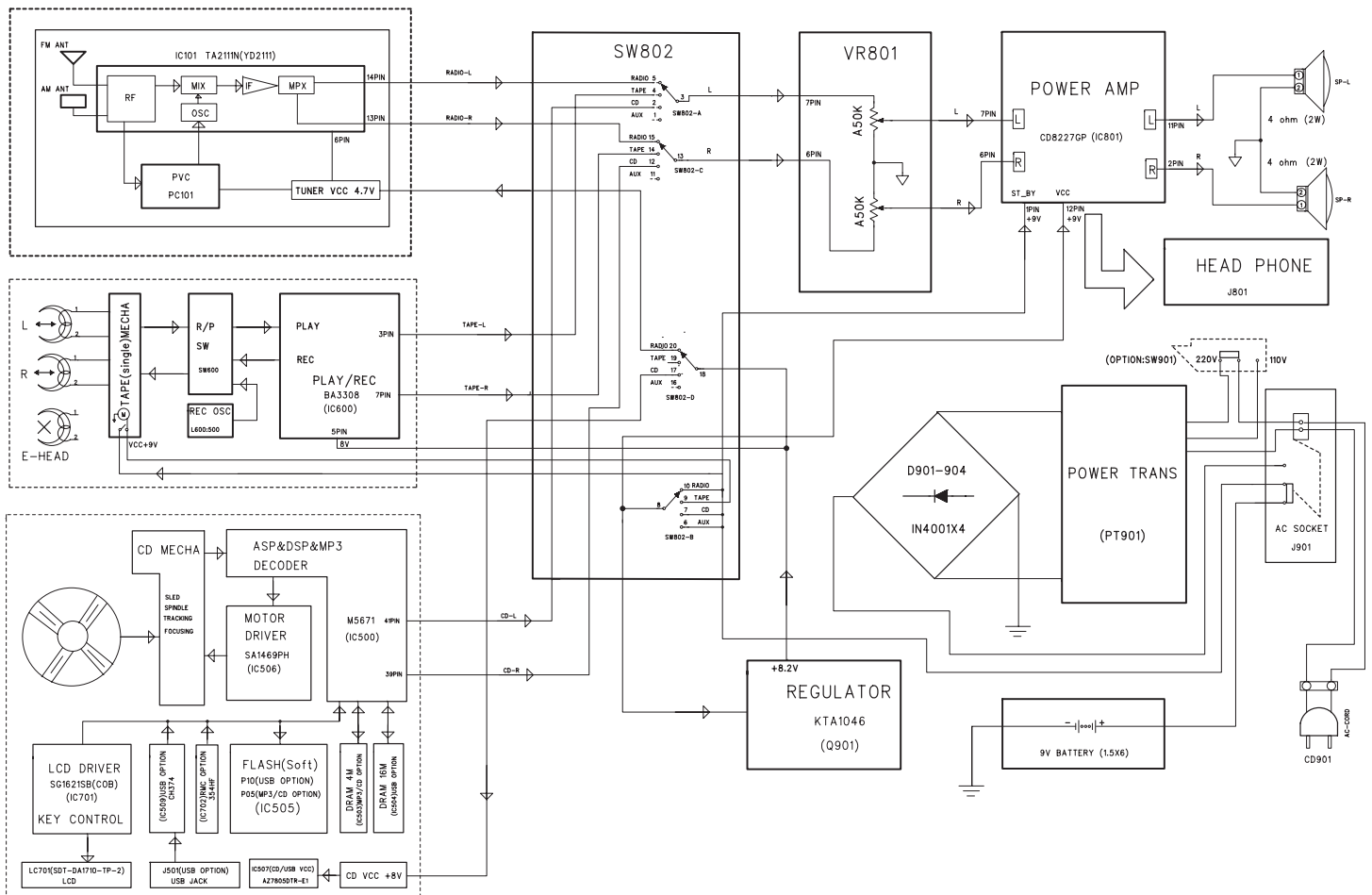
No.	PARTS NAME	CODE NO.	DESCRIPTIONS	Q'TY	REMARKS
1	SPRING CST	9CD3010300	SUS304 $\varnothing$ 0.8	1	
2	WINDOW CST	9CD1627000	GPPS	1	
3	DOOR CASSETTE	9CD1818300	70%HIPS+30%GPPS	1	
4	GRILLE SPEAKER	9CD1206200	SPCC T0.5	2	
5	WINDOW LCD	9CD1626900	GPPS	1	
6	SPEAKER UNIT	9CD8500620	3", 4ohm, 5W	2	
7	BRACKET SPEAKER	9CD2420500	70%HIPS+30%GPPS	2	
8	HOLDER LCD	9CD2306400	ABS	1	
9	PCB FRONT	FCD6500840	124X27X1.6T	1	
10	KNOB CD L	9CD1365500	70%HIPS+30%GPPS	1	
11	KNOB CD R	9CD1365600	70%HIPS+30%GPPS	1	
12	CABINET FRONT	9CD0127900	70%HIPS+30%GPPS	1	
13	DAMP GEAR B	9CD2603300	POM	2	DAMPER B AS
	DAMP BASE B	9CD2603200	ABS		
14	CASS DECK	9CD6014700	H21VB08-C63-7D3G5	1	
15	KNOB DECK PAUSE	9CD1366000	70%HIPS+30%GPPS	1	
16	KNOB DECK STOP	9CD1366100	70%HIPS+30%GPPS	1	
17	KNOB DECK FF	9CD1366200	70%HIPS+30%GPPS	1	
18	KNOB DECK REW	9CD1366300	70%HIPS+30%GPPS	1	
19	KNOB DECK PLAY	9CD1366400	70%HIPS+30%GPPS	1	
20	KNOB DECK REC	9CD1366500	70%HIPS+30%GPPS	1	
21	BRACKET PCB TAPE	9CD2419401	HIPS	1	XM-651/652G 共用
22	PCB TAPE	FCD6500831	62X61X1.6T	1	
23	CABINET TOP	9CD0128010	70%HIPS+30%GPPS	1	
24	KNOB VOLUME	9CD1365700	70%HIPS+30%GPPS	1	
25	DOOR CD	9CD1818200	70%HIPS+30%GPPS	1	
26	WINDOW CD	9CD1627100	GPPS	1	
27	HANDLE	9CD1911200	70%HIPS+30%GPPS	1	
28	SPRING CD	9CD3010010	SUS304 $\varnothing$ 0.8	1	
29	KONB TUNING	9CD1365800	70%HIPS+30%GPPS	1	
30	COVER USB	9CD0423100	URETHANE	1	OPTION
31	PCB USB	FCD6500841	38X27X1.6T	1	OPTION
32	COVER PICK-UP	9CD0421400	ABS	1	
33	CD PICK-UP	9CD6014810	R801(RICHLIY)	1	
34	RUBBER DAMPER	97L42023R0	SILICON GREEN	2	

No.	PARTS NAME	CODE NO.	DESCRIPTIONS	Q'TY	REMARKS
35	HOLDER LEAF	9CD2306300	70%HIPS+30%GPPS	1	
36	MAIN PCB	FCD6500830	330X160X1.6T	1	
37	BRACKET TUNING	9CD2420600	70%HIPS+30%GPPS	1	
38	KNOB SLIDE	9CD1365900	70%HIPS+30%GPPS	2	
39	LEVER KNOB BAND	9CD2603900	70%HIPS+30%GPPS	1	
40	BRACKET KNOB SLIDE	9CD2420700	70%HIPS+30%GPPS	2	
41	LEVER KNOB FUNCTION	9CD2604000	70%HIPS+30%GPPS	1	
42	RUBBER DAMPER	97L42023R1	SILICON RED	2	
43	ANTENNA ROD	9CD6810310	BSP	1	
44	EGG LUG	F728800061	UL 1007 #28 FLAT 1P 200	1	
45	PCB SOCKET	FCD6500834	53X12X1.6T	1	ONLY FOR CE
46	JACK AC SOCKET	F736300007	TC08-115-02	1	
47	POWER TRANS	5TP8048F67	E=48X24 230V/50Hz	1	
48	SW VOLTAGE SELE	5S30102377-1	ZH-06-01	1	OPTION
49	CABINET BACK	9CD0128100	70%HIPS+30%GPPS	1	
50	CUSHION FOOT	9CD4207700	D10*4.0T EVA	2	
51	COVER BATTERY	9CD0423000	70%HIPS+30%GPPS	1	
52	SPRING BATTERY+/-	9CD3010100	SUS303 $\varnothing$ 1.0	1	
53	PCB FUSE	FCD6500832	60X49X1.6T	1	
54	SPRING BATTERY PCB	9CD3010200	SUS303 $\varnothing$ 1.0	1	
55	PCB BATTERY	FCD6500833	53X27X1.6T	1	
56	GASKET	9CD0915940	EVA T0.5	1	
57	BRACKET AC SOCKET	9CD2421210	SECC T0.8	1	ONLY FOR UL
S1	SCREW TAPPTITE	7173301011	TT2 BIN 3X10 MFZN	21	2EA SCREW OPTION
S2	SCREW TAPPTITE	7173301211	TT2 BIN 3X12 BK	8	
S3	SCREW TAPPTITE	7173261011	TT2 BIN 2.6X10 MFZN	6	
S4	SCREW TAPPTITE	7171203512-1	TT2 PAN 2.0X3.5 BK	3	
S5	SCREW MACHINE	7003306011	MACHINE(3x6)	1	
S6	SCREW WASHER	9CD3103600	TT2 WAS2.6X8+D10MFZ	4	
S7	SCREW TAPPTITE	7173401011	TT2 BIN 4.0X10 MFZN	2	
S8	SCREW TAPPTITE	7173260811	TT2 BIN 2.6X8 MFZN	2	OPTION

Wiring Diagram



Block Diagram



- FRONT Section

LOC	FUNCTION	W/O RMC	W RMC
IC702		X	0
CE702		X	0
HC703		X	0



- MAIN & TAPE Section



- **CD/MP3/USB Section**

LOC \ FUNCTION	W/O USB	W USB
IC503	O	X
IC504	X	O
IC505	P05	P10

LOC \ FUNCTION	W/O USB	W USB
IC503	O	X
IC504	X	O
IC505	P05	P10

LOC \ X501	3PIN	2PIN
HC509	X	0
HC510	X	0

LOC \ X501	3PIN	2PIN
HC509	X	0
HC510	X	0

TO CD PICK-UP

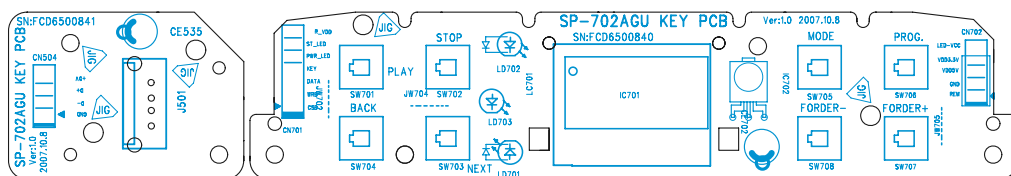


- USB Section

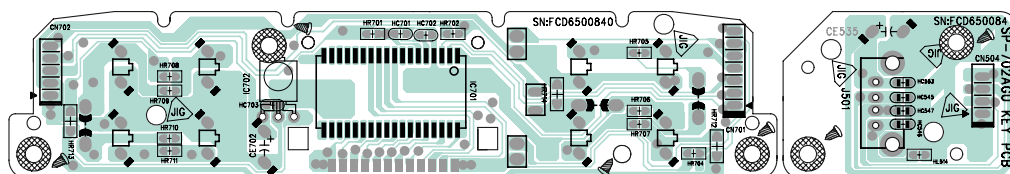


P.C.B Pattern Layout

- **FRONT** : Top View

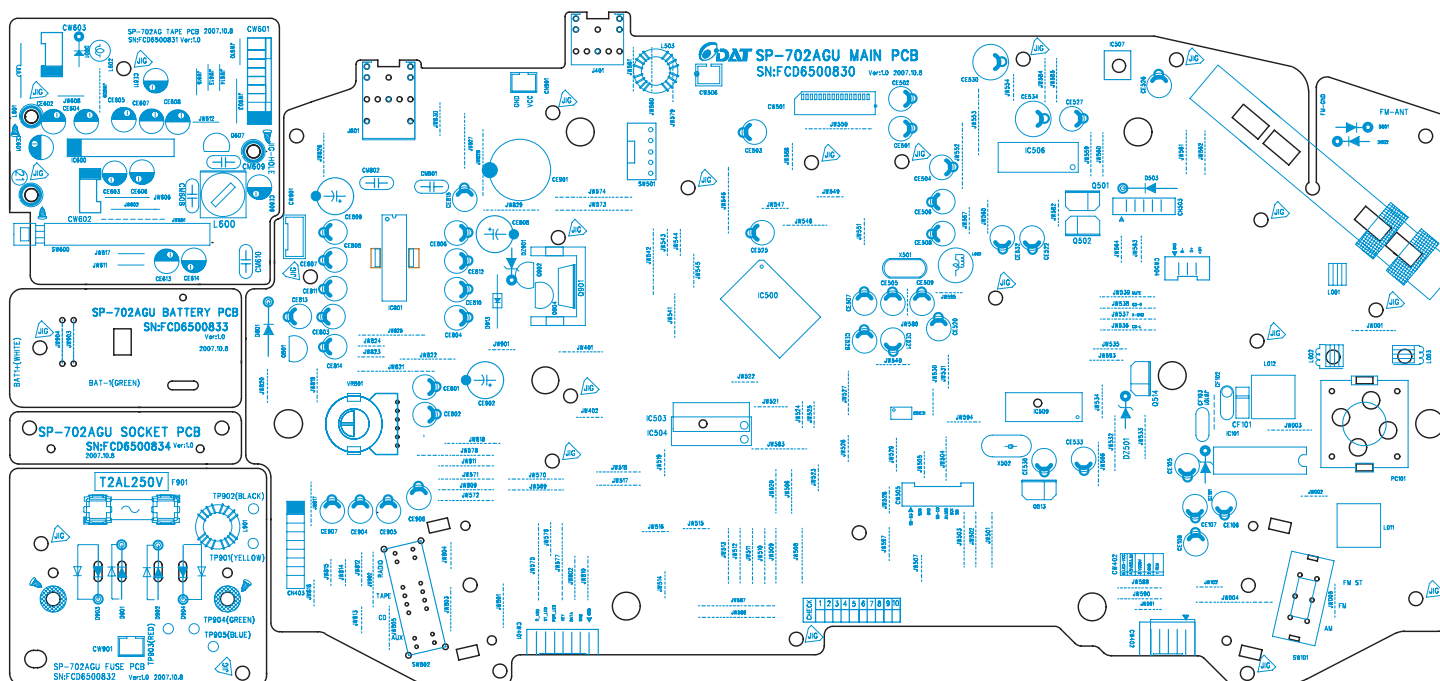


- **FRONT : Bottom View**



P.C.B Pattern Layout

- MAIN : Top View



- MAIN : Bottom View



APPENDIX - ELECTRICAL PART LIST

◆◆◆◆◆ PCB MAIN AS ◆◆◆◆◆

LOC	PART-CODE	PART-NAME	PART-DESC	Remark
CN101	F728800076	WIRE LEAD	UL1007 #28 1P L=50mm+61640	
CN403	F728800072	CONN AS	UL1007 #28/9P L=120mm 2.0PH	
CN501	F728800054	CONN AS	FCC 16P P=1.0 80mm	
CN503	F728800075	CONN AS	UL20080#28/6P L=90mm 2.0PH	
CN801	F728800057	CONN AS	UL1007 #26/4P L=250mm+460mm 2.0PH	
CN901	F728800058	CONN AS	UL1007 #22/2P L=160mm 2.5PH	
CW401	2001-WR-07	WAFER	7P 2.0MM ANGLE	
CW402	2001-WR-04	WAFER	4P 2.0MM ANGLE	
CW501	9738842900	WAFER	16P FFC PIT1.0	
CW504	2001-WS-04	WAFER	4P 2.0MM	Only SP-702AU
CW801	2001-WS-04	WAFER	4P 2.0MM	
D001,D002	DZN4148---	DIODE	IN4148 AUTO 52MM	
D503	DIN4001---	DIODE	IN4001	
DZ101	DZTZ4R7B--	DIODE ZENER	UZ-4.7B	
DZ501	DZTZ4R3B--	DIODE ZENER	MTZ-4.3B 52MM TAPPING	Only SP-702AU
DZ901	DZTZ4R3B--	DIODE ZENER	MTZ-4.3B 52MM TAPPING	
HD501,HD502,HD801-HD809	DZDS160---	DIODE SW CHIP	KDS160(KDS511)	
HQ501,HQ503	TZTA1504S-	TR CHIP	KTA1504S	
HQ504,HQ505	TZTC3875S-	TR CHIP	KTC3875Y	
HQ506	TZTC3875S-	TR CHIP	KTC3875Y	Only SP-702AU
HQ801,HQ802	TZTD1304--	TR CHIP	KTD1304	
IC101	1TA2111N--	IC	TA2111N(YD2111)	
IC500	1M5671----	IC	M5671	
IC503	1UPD424400	IC DRAM	UPD424400 DRAM (1Mx4)	Only SP-702AG
IC504	1HY5117404	IC DRAM	HY5117404A (4Mx4)	Only SP-702AU
IC505	1EN25P10--	IC FLASH	EN25P10	Only SP-702AU
	1EN25P05--	IC FLASH	EN25P05	Only SP-702AG
IC506	1SA1469PH-	IC MOTOR DRIVER	SA1469PH	
IC507	1AZ7805DTR	IC	AZ7805DTR-E1	
IC509	1CH374----	IC USB	CH374	Only SP-702AU
IC801	1CD8227GP-	IC	CD8227GP	
J401	F736300011	JACK H/P	EJ-3511	
J801	F736300006	JACK H/P	R-PJ3506	
L001	FLA139K005	COIL FM ANT	5mm X 0.8mm X 4.5T(1.3uH)	
L002	FLO838K002	COIL FM OSC	5mm X 0.8mm X 2.5T(0.83uH)	
L003	FLR119K001	COIL FM RF	5mm X 0.8mm X 3.5T(1.1uH)	
L010A	FCD6810400	BAR AM ANT	AP1070	
L010B	FLA560K004	COIL AM ANT	AM-120TS:20TS	
L011	FLO361K003	COIL AM OSC	ML10-37B	
L012	F110AYW001	IFT AM	TF10-19	
L502	FLC330K008	COILL CHOKE	NPK0406-330K	
L503	FLC260K006	COIL CHOKE	NTC10*5*5-260M	
PC101	FC134P001D	PVC	TU-CAP 20-126P 20X20A	
Q501,Q502	TZS8550Y--	TR	S8550	
Q513	TZS8550Y--	TR	S8550	Only SP-702AU

APPENDIX - ELECTRICAL PART LIST

Q514	TZTC8050-D	TR	KTC8050-D	Only SP-702AU
Q801	TZTC8050-D	TR	KTC8050-D	
Q901	TZTA1046Y-	TR	KTA1046Y (KTA1366Y) AUTO	
Q902,Q904	TZTC3198Y-	TR	KTC3198Y (2SC5343) AUTO	
SW101	FS30103A08	SW SLIDE	SSK-13VE01-G9-NS-200	
SW501	5SD0102A12	SW/OPEN	RES-02B	
SW802	FS30404A07	SW SLIDE	SST-44DO4-G9-NS	
VR801	FV150KF01A	ROTARY VOLUME	R1212G13A1-A50K	
X501	5PQZTT1693	RESONATOR CERA	QTTT16.93MMX(3PIN)	
X502	5XA24R000C	X-TAL	24.000MHZ (3X8) 20PPM	Only SP-702AU

◆◆◆◆◆ PCB TAPE AS ◆◆◆◆◆

LOC	PART-CODE	PART-NAME	PART-DESC	Remark
CN602	F728800039	CONN AS	UL2851#28 4P 130MM	
CN603	F728800040	CONN AS	UL1007#26 4P 100MM	
CW601	2001-WS-09	WAFER	9P 2.0MM	
CW602,CW603	2001-WS-04	WAFER	4P 2.0MM	
D601	W581GY7595	WIRE JUMPER	AWG22 1/0.65 SN 7.5 AUTO	
HD601,HD602, HD603	DZDS160---	DIODE SW CHIP	KDS160(KDS511)	
HQ602	TZTD1304--	TR CHIP	KTD1304	
IC600	1BA3308H--	IC TAPE AMP	BA3308	
SW600	5S30602A02	SW SILDE	R-PS 6205C	
Q607	TZTC3198Y-	TR	KTC3198Y (2SC5343) AUTO	
L600	5L00000500	COIL BIAS OSC	0500 10X10 BK	
L601	5CPZ101K02	COIL PEAKING	100 UH K (AXIAL 3.5 MM)	

◆◆◆◆◆ PCB FRONT AS ◆◆◆◆◆

LOC	PART-CODE	PART-NAME	PART-DESC	Remark
CN701	F728800073	CONN AS	FLAT #26/7P L=120mm 2.0PH	
CN702	F728800074	CONN AS	FLAT #26/4P L=120mm 2.0PH	
LC701	DSDTDA1710	LCD	SDT-DA1710-TP-2	
LD701	DMT-254MGT-B	LED	MT-254MGT/TR1(GREEN) BULK	
LD702	DZLR332VC3F	LED	SLR332VC3F(RED)PI3	
LD703	DYZB2620B-	LED	CU430A-01 BLUE	
IC701	1SG1621SB-	IC LCD DRIVER	SG1621SB(COB)	
IC702	1354HF----	IC RMC	354HF	
SW701,SW702 SW703,SW704 SW705,SW706 SW707,SW708	5S50101Z67A-2	SW TACT	THVV502GAA	

◆◆◆◆◆ PCB FUSE AS ◆◆◆◆◆

LOC	PART-CODE	PART-NAME	PART-DESC	Remark
CN903	F728800062	WIRE LEAD	UL1007 #22 RED 1P L=120mm	
CN904	F728800063	WIRE LEAD	UL1007 #22 BLUE 1P L=120mm	
D901,D902				
D903,D904	DIN4001---	DIODE	IN4001	
CW901	2503-WS-02	WAFER	2P 2.5MM	
F901	5FSGB2022L	FUSE	VDE TL 2A 250V MF51	
FC901,FC902	9734600800	HOLDER FUSE CLIP	PI5.2 - REEL	
J901	F736300007	JACK AC/SOCKET	TC08-115-02	
PT901	5TP8048F67	TRANS POWER	EI=48X24 230V/50HZ	European Option
	5TP0048F69	TRANS POWER	EI=48X24 127/230V 50/60HZ	Brazilian Option
	5TP1048F71	TRANS POWER	EI=48X24 124V/60HZ	American Option

APPENDIX - ELECTRICAL PART LIST

◆◆◆◆◆ PCB USB AS ◆◆◆◆◆

LOC	PART-CODE	PART-NAME	PART-DESC	Remark
CN504	F728800074	CONN AS	FLAT #26/4P L=120mm 2.0PH	Only SP-702AU
HL514	HLB301KF2B	BEAD CHIP	1608 100MHZ 300	Only SP-702AU
J501	F736300009	JACK USB	USB-AF-180	Only SP-702AU

◆◆◆◆◆ PCB BATTER AS ◆◆◆◆◆

LOC	PART-CODE	PART-NAME	PART-DESC	Remark
CN905	F728800070	WIRE LEAD	UL1007 #22 GREEN 1P L=100mm	
CN906	F728800064	WIRE LEAD	UL1007 #22 WHITE 1P L=80mm	

◆◆◆◆◆ CABINET PANEL AS ◆◆◆◆◆

LOC	PART-CODE	PART-NAME	PART-DESC	Remark
10	9CD8500620	SPEAKER UNIT	3" 4ohm 3~5W YS	

◆◆◆◆◆ PACKING AS ◆◆◆◆◆

LOC	PART-CODE	PART-NAME	PART-DESC	Remark
CD901	F736909006	CORD AC	1.5M BLACK H03VVH2-F 2X0.75MM2 WITH PLUG LY-21 & LY-22	European Option
	F736909007	CORD AC	1.5M BLACK NISPT-2 18AWGX2C 105°C WITH LY-1P & LY-53	American Option
90	9CDM070901	REMOCON	AM-11MR(WHITE)	

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