

[CONTENTS]

○ SECTION 1. GENERAL

- SERVICING PRECAUTIONS 1-2
- ESD PRECAUTIONS 1-4
- SPECIFICATION 1-5

○ SECTION 2. ELECTRICAL SECTION

- ADJUSTMENTS 2-1
- TROUBLESHOOTING 2-2
- WAVEFORMS OF MAJOR CHECK POINT 2-11
- BLOCK DIAGRAM 2-21
- SCHEMATIC DIAGRAMS 2-23
- WIREING DIAGRAM 2-29
- PRINTED CIRCUIT DIAGRAMS 2-31
- INTERNAL BLOCK DIAGRAM OF ICs 2-38

○ SECTION 3. EXPLODED VIEWS

- CABINET AND MAIN FRAME SECTION 3-1
- TAPE DECK MECHANISM: AUTO REVERSE DECK 3-3
- TAPE DECK MECHANISM: AUTO STOP DECK (OPTIONAL) 3-5
- CD MECHANISM 3-7

○ SECTION 4. SPEAKER PART

- SPEAKER PART 4-1

○ SECTION 5. REPLACEMENT PARTS LIST

- REPLACEMENT PARTS LIST 5-1

SECTION 1. GENERAL

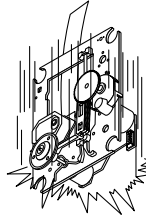
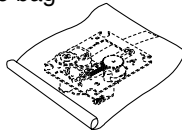
□ SERVICING PRECAUTIONS

NOTES REGARDING HANDLING OF THE PICK-UP

1. Notes for transport and storage

- 1) The pick-up should always be left in its conductive bag until immediately prior to use.
- 2) The pick-up should never be subjected to external pressure or impact.

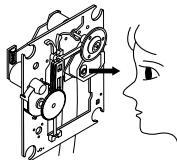
Storage in conductive bag



Drop impact

2. Repair notes

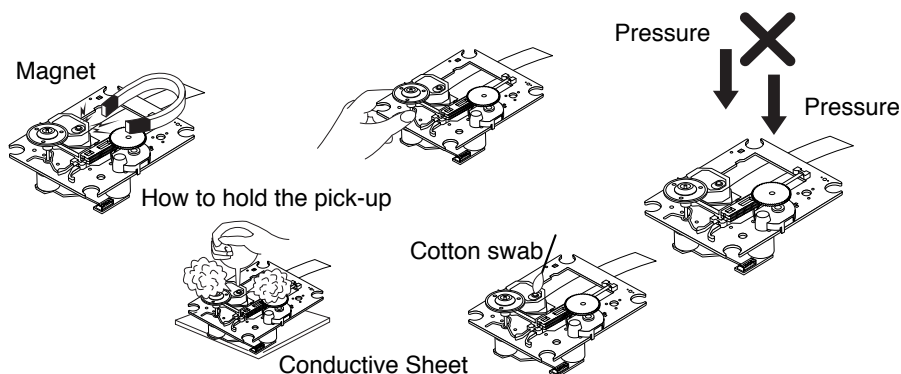
- 1) The pick-up incorporates a strong magnet, and so should never be brought close to magnetic materials.
- 2) The pick-up should always be handled correctly and carefully, taking care to avoid external pressure and impact. If it is subjected to strong pressure or impact, the result may be an operational malfunction and/or damage to the printed-circuit board.
- 3) Each and every pick-up is already individually adjusted to a high degree of precision, and for that reason the adjustment point and installation screws should absolutely never be touched.
- 4) Laser beams may damage the eyes!
Absolutely never permit laser beams to enter the eyes!
Also NEVER switch ON the power to the laser output part (lens, etc.) of the pick-up if it is damaged.



NEVER look directly at the laser beam, and don't let contact fingers or other exposed skin.

5) Cleaning the lens surface

If there is dust on the lens surface, the dust should be cleaned away by using an air bush (such as used for camera lens). The lens is held by a delicate spring. When cleaning the lens surface, therefore, a cotton swab should be used, taking care not to distort this.



6) Never attempt to disassemble the pick-up.

Spring by excess pressure. If the lens is extremely dirty, apply isopropyl alcohol to the cotton swab. (Do not use any other liquid cleaners, because they will damage the lens.) Take care not to use too much of this alcohol on the swab, and do not allow the alcohol to get inside the pick-up.

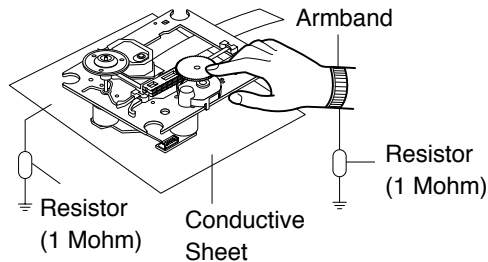
NOTES REGARDING COMPACT DISC PLAYER REPAIRS

1. Preparations

- 1) Compact disc players incorporate a great many ICs as well as the pick-up (laser diode). These components are sensitive to, and easily affected by, static electricity. If such static electricity is high voltage, components can be damaged, and for that reason components should be handled with care.
- 2) The pick-up is composed of many optical components and other high-precision components. Care must be taken, therefore, to avoid repair or storage where the temperature of humidity is high, where strong magnetism is present, or where there is excessive dust.

2. Notes for repair

- 1) Before replacing a component part, first disconnect the power supply lead wire from the unit
- 2) All equipment, measuring instruments and tools must be grounded.
- 3) The workbench should be covered with a conductive sheet and grounded.
When removing the laser pick-up from its conductive bag, do not place the pick-up on the bag. (This is because there is the possibility of damage by static electricity.)
- 4) To prevent AC leakage, the metal part of the soldering iron should be grounded.
- 5) Workers should be grounded by an armband (1M Ω)
- 6) Care should be taken not to permit the laser pick-up to come in contact with clothing, in order to prevent static electricity changes in the clothing to escape from the armband.
- 7) The laser beam from the pick-up should NEVER be directly facing the eyes or bare skin.



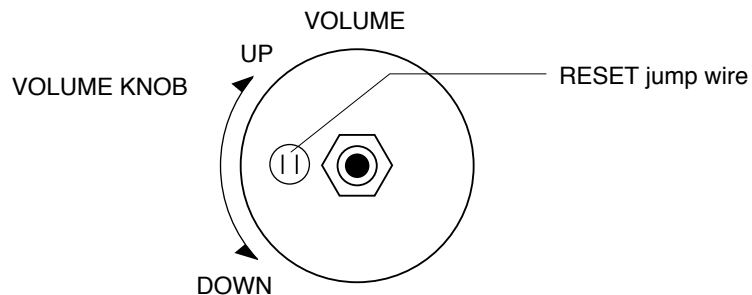
CLEARING MALFUNCTION

You can reset your unit to initial status if malfunction occur(button malfunction, display, etc.).

Using a pointed good conductor(such as driver), simply short the RESET jump wire on the inside of the volume knob for more than 3 seconds.

If you reset your unit, you must reenter all its settings(stations, clock, timer)

- NOTE:** 1. To operate the RESET jump wire, pull the volume rotary knob and release it.
2. If you wish to operate the RESET jump wire, it is necessary to unplug the power cord.



□ ESD PRECAUTIONS

Electrostatically Sensitive Devices (ESD)



Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive Devices (ESD). Examples of typical ESD devices are integrated circuits and some field-effect transistors and semiconductor chip components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ESD devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ESD devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESD devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESD devices.
6. Do not remove a replacement ESD device from its protective package until immediately before you are ready to install it. (Most replacement ESD devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive materials).
7. Immediately before removing the protective material from the leads of a replacement ESD device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION : BE SURE NO POWER IS APPLIED TO THE CHASSIS OR CIRCUIT, AND OBSERVE ALL OTHER SAFETY PRECAUTIONS.

8. Minimize bodily motions when handling unpackaged replacement ESD devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ESD device).

[CAUTION. GRAPHIC SYMBOLS]

	THE LIGHTNING FLASH WITH APROWHEAD SYMBOL. WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK.
	THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF IMPORTANT SAFETY INFORMATION IN SERVICE LITERATURE.

□ SPECIFICATIONS

SECTION		MODEL	LX-M230A
General	Power supply	Refer to the back panel of the unit	
	Power consumption	50W	
	Mass	4.35kg	
	External dimensions(W x H x D)	161 x 255 x 268mm	
CD	Frequency Response	40 -18000Hz	
	Signal-to-noise ratio	70dB	
	Dynamic range	70dB	
TUNER	FM	Tuning Range	87.5 -108.0MHz
		Intermediate Frequency	10.7 MHz
		Signal-to-noise ratio	60/55 dB
		Frequency Response	60 -10000Hz
	AM	Tuning Range	522-1611kHz or 530-1610kHz
		Intermediate Frequency	450kHz
		Signal-to-noise ratio	35 dB
		Frequency Response	100 -1800 Hz
AMP	Output Power	18W	
	T.H.D	0.15%	
	Frequency Response	40-25000Hz	
	Signal-to-noise ratio	80dB	
TAPE	Tape Speed	4.75cm/sec	
	Wow Flutter	0.25% (MTT-111,JIS-WTD)	
	F.F/REW Time	120sec(C-60)	
	Frequency Response	250-8000Hz	
	Signal-to-noise ratio	43dB	
	Channel Separation	50dB(P/B)/45dB(R/P)	
	Erase Ratio	55dB (MTT-5511)	
Speaker	MODEL	LXS-M230	
	Type	1 Way 1 Speaker	
	Impedance	6Ω	
	Frequency Response	85-20000Hz	
	Sound Pressure Level	88dB/W(1m)	
	Rated Input Power	20W	
	Max.Input Power	40W	
	Net Dimension(W x H x D)	160 x 248 x 192mm	

NOTE : Specification are subject to change without notice in the course of product improvement.

SECTION 2. ELECTRICAL SECTION

ADJUSTMENTS

This set has been aligned at the factory and normally will not require further adjustment. As a result, it is not recommended that any attempt is made to modify any circuit. If any parts are replaced or if anyone tampers with the adjustment, realignment may be necessary.

IMPORTANT

1. Check Power-source voltage.
2. Set the function switch to band being aligned.
3. Turn volume control to minimum unless otherwise noted.
4. Connect low side of signal source and output indicator to chassis ground unless otherwise specified.
5. Keep the signal input as low as possible to avoid AGC and AC action.

TAPE DECK ADJUSTMENT

1. AZIMUTH ADJUSTMENT

Deck Mode	Test Tape	Test Point	Adjustment	Adjust for
Palyback	MTT-114	Speaker Out	DECK Screw Azimuth Screw	Maximum

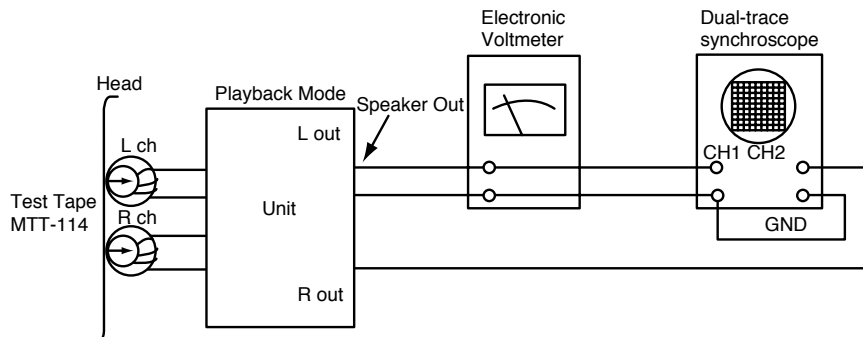
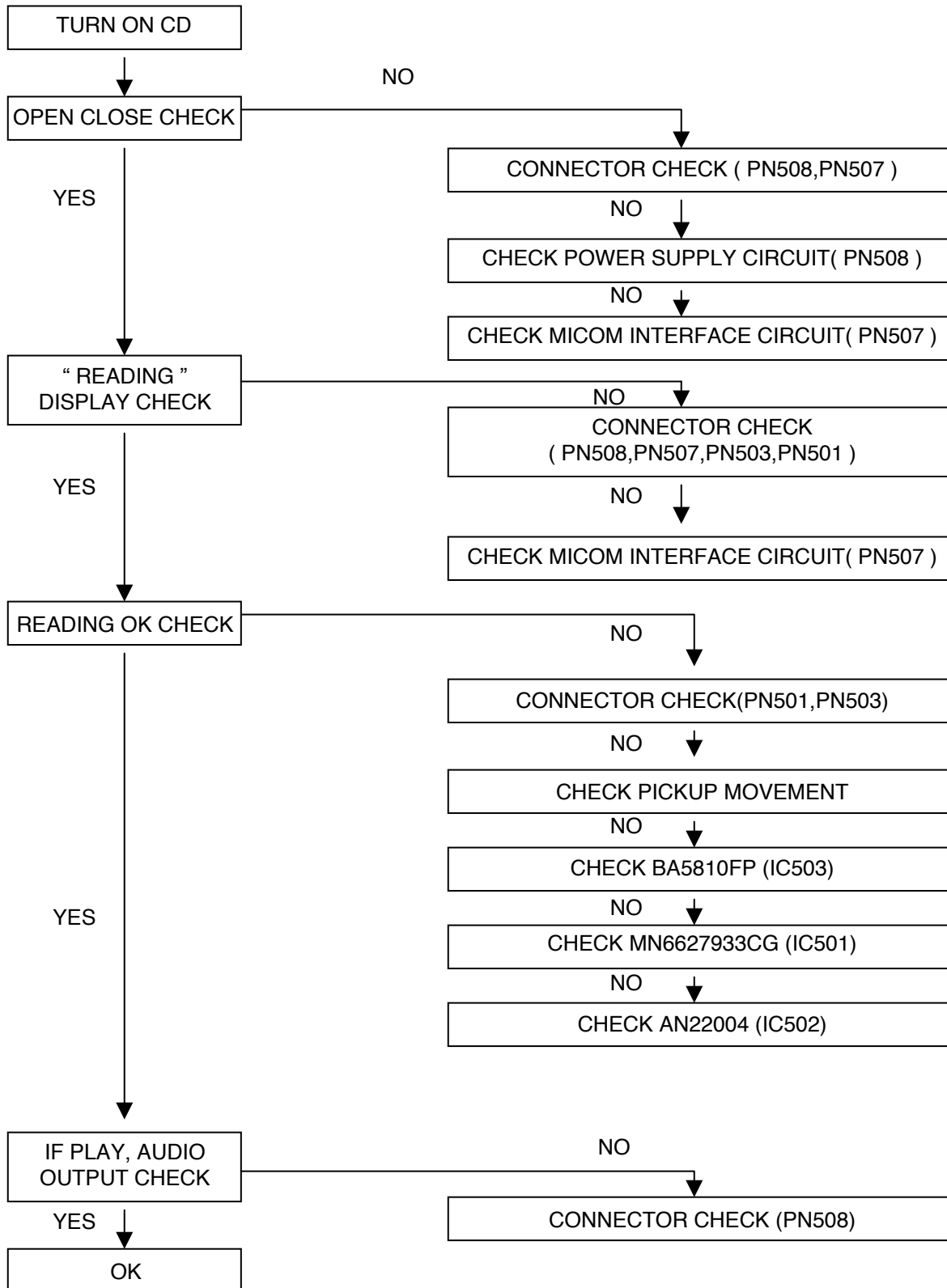


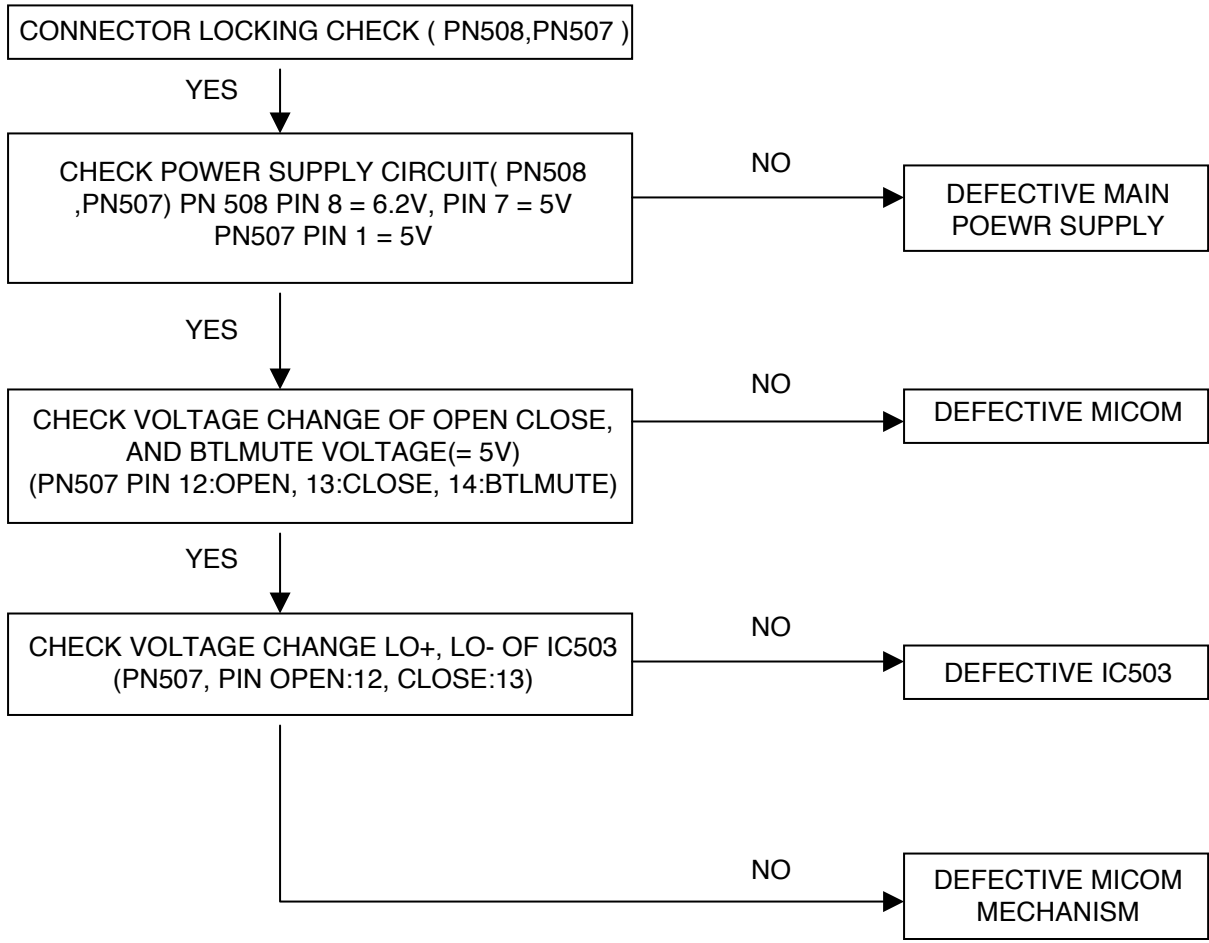
Figure 1. Azimuth Adjustment Connection Diagram

☐ TROUBLESHOOTING

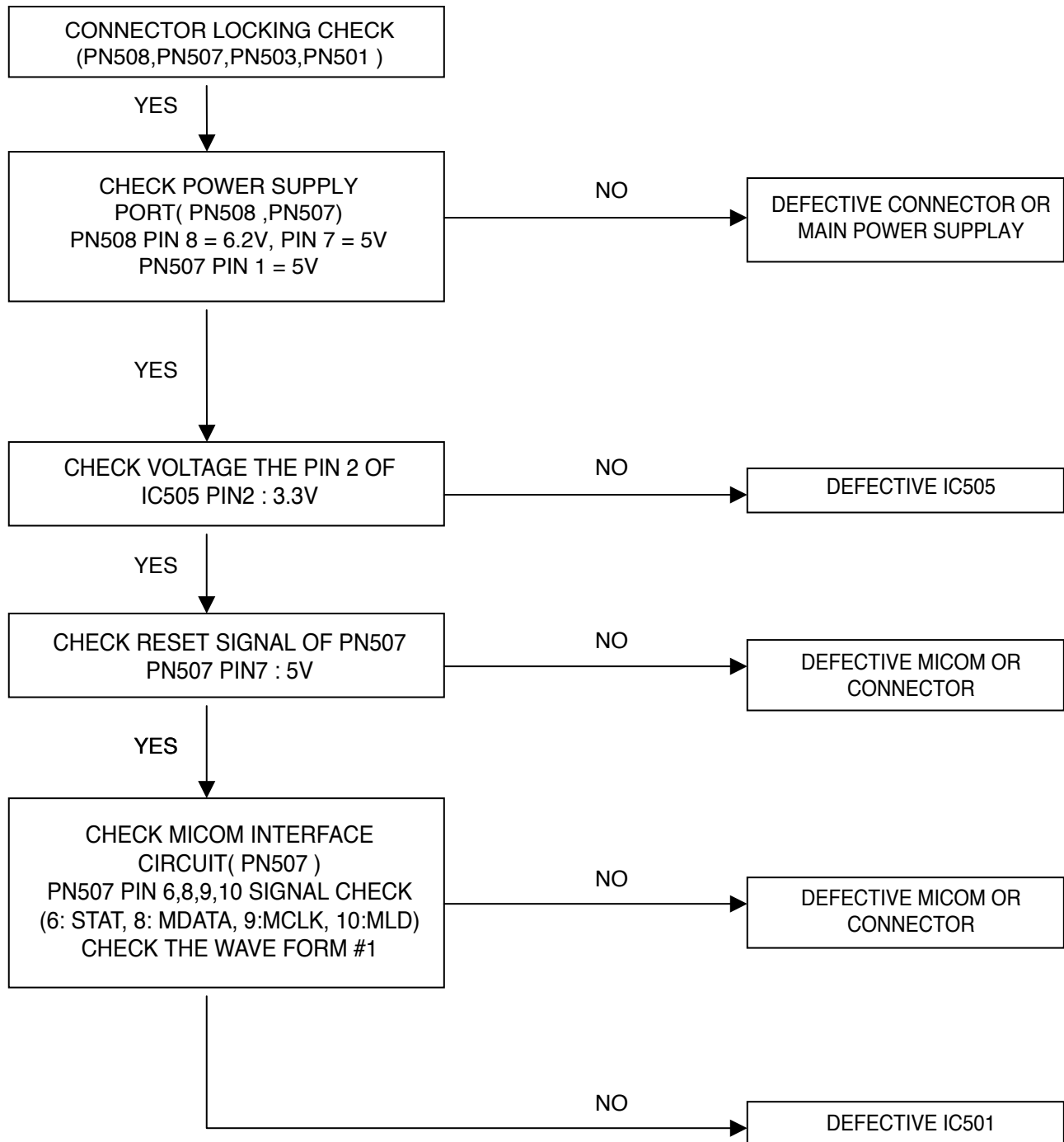
• CD PART



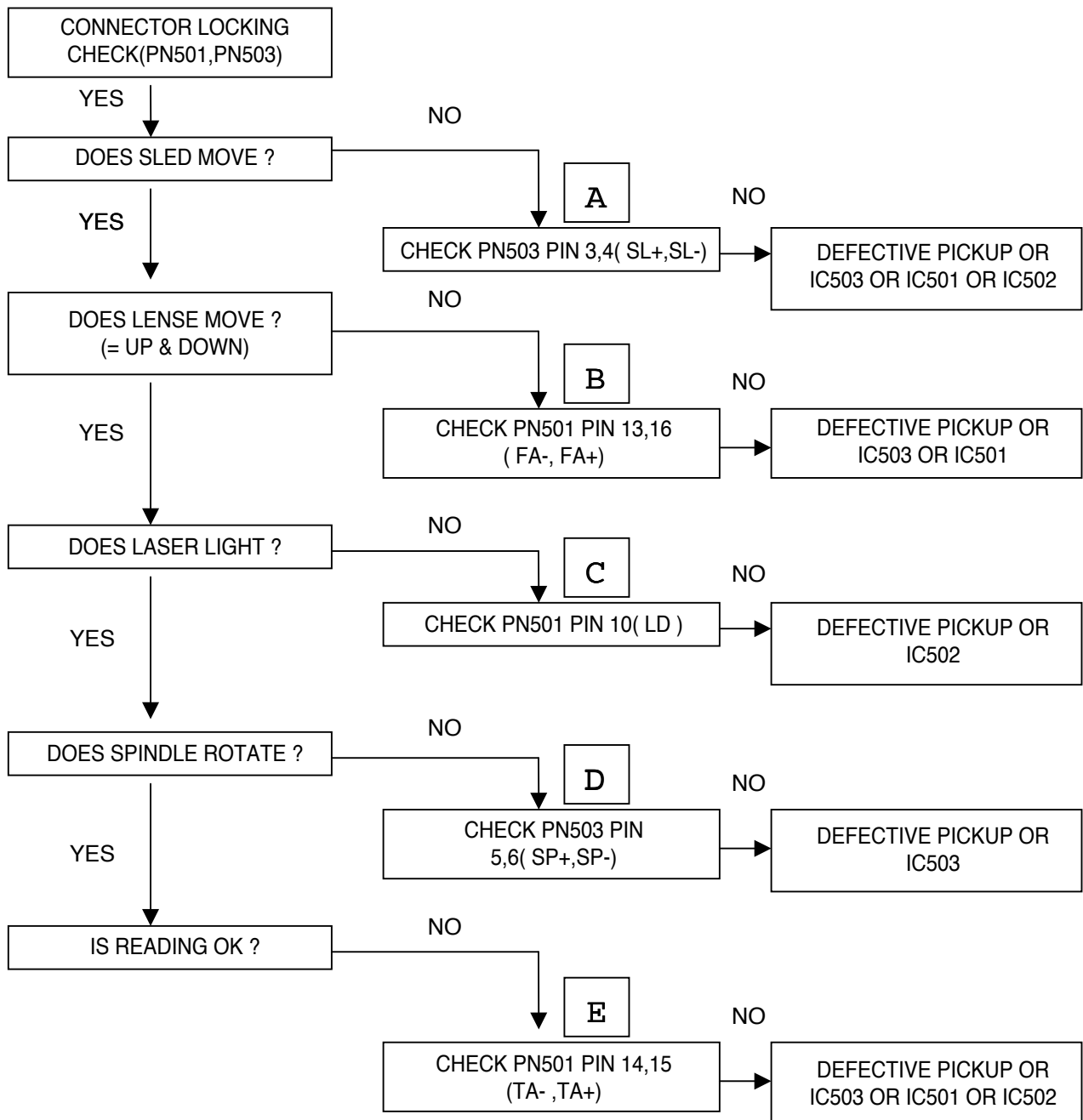
• OPEN CLOSE NG



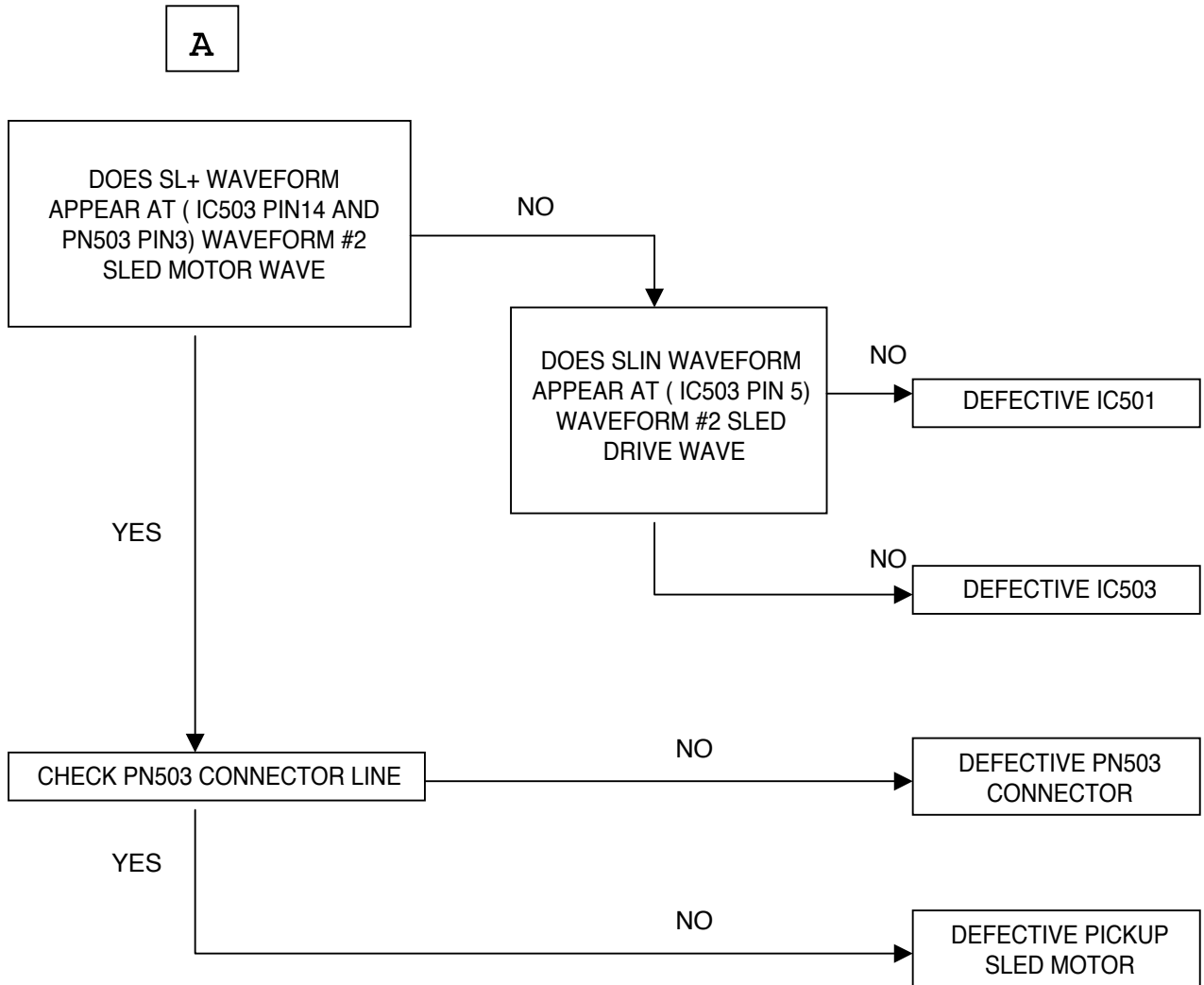
• “ READING ” DISPLAY CHECK (= ONLY “CD “DISPLAY)



• **READING OK CHECK (= “NO DISC” DISPLAY)**

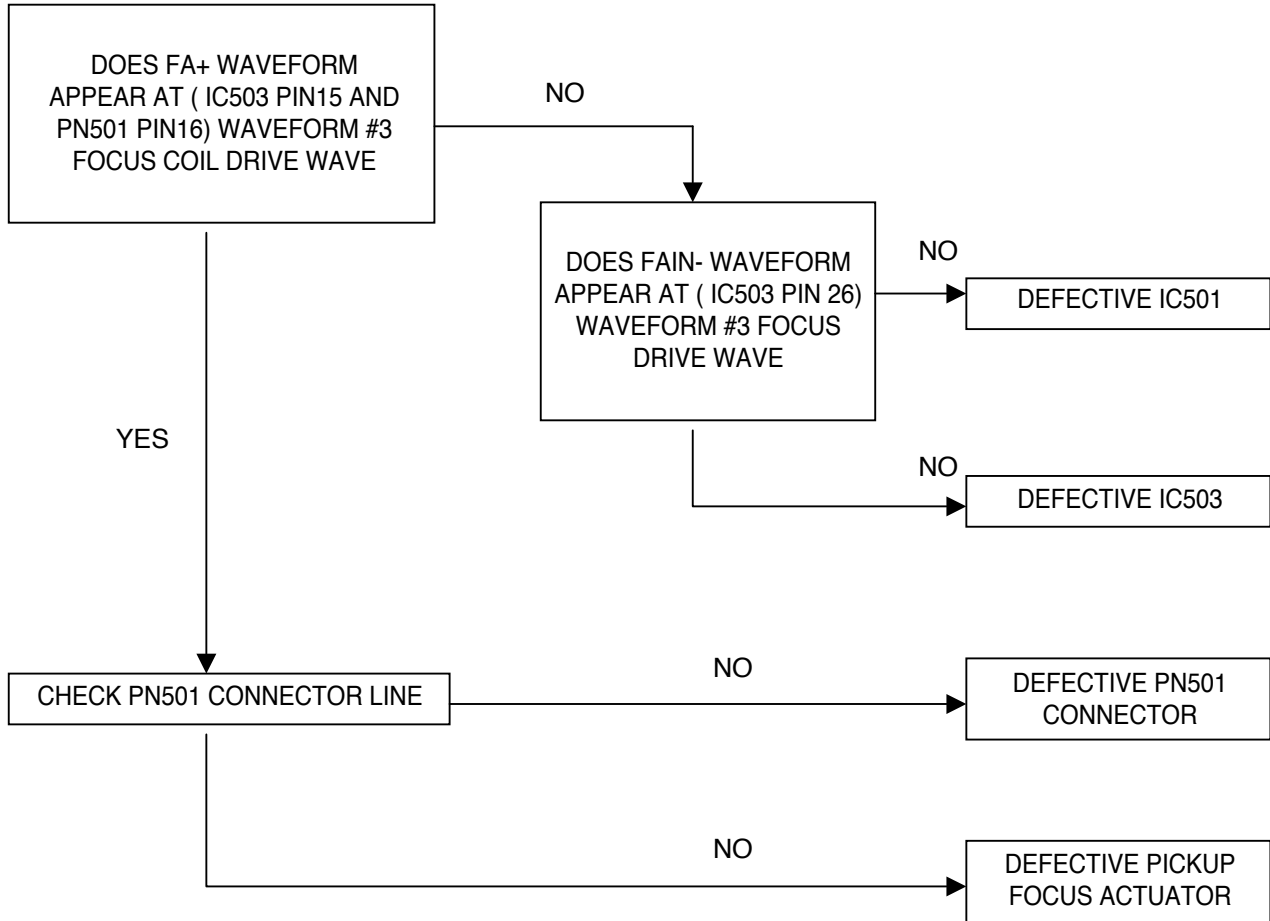


• READING OK CHECK #A (= “NO DISC” DISPLAY)

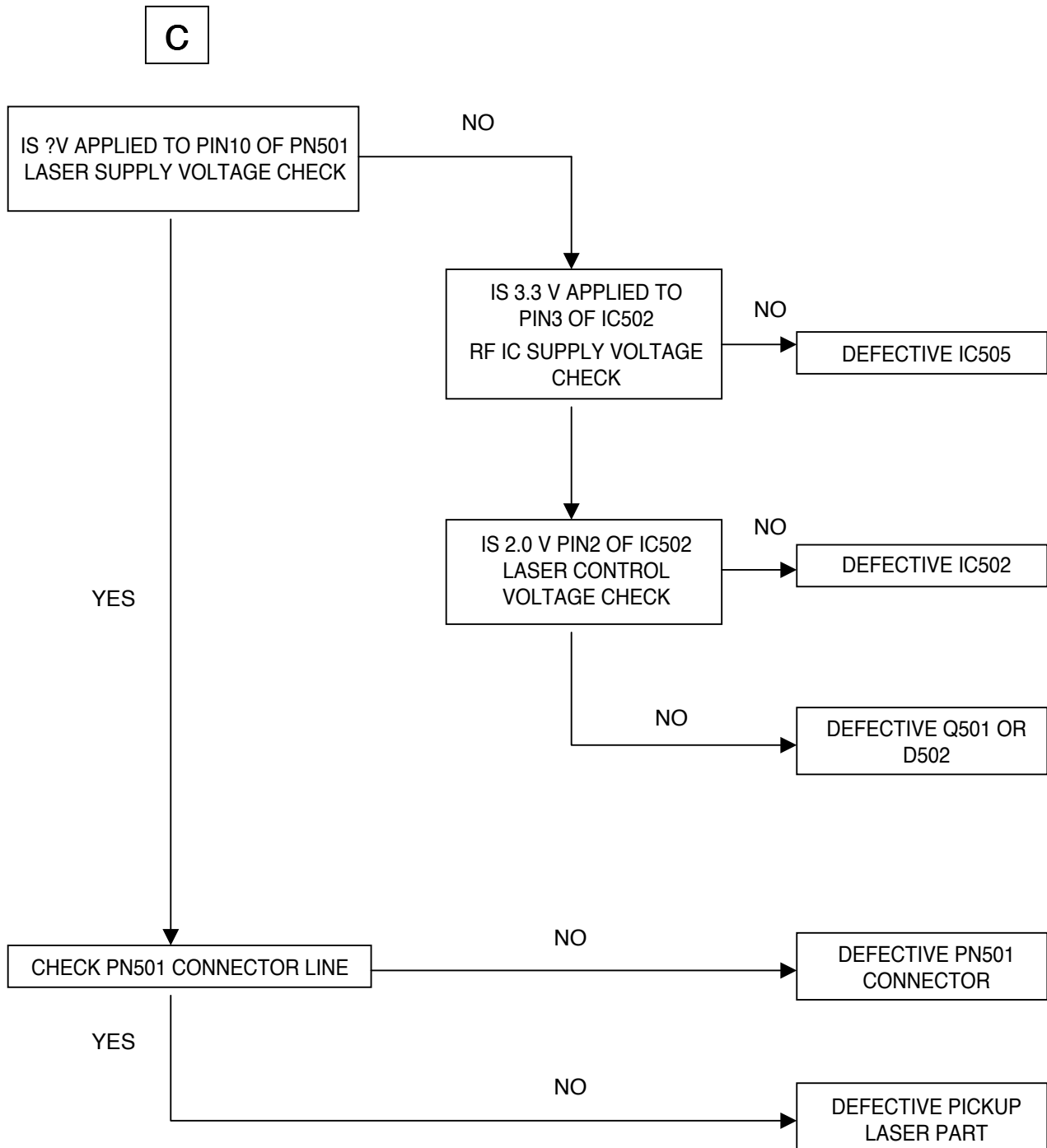


• READING OK CHECK #B (= "NO DISC" DISPLAY)

B

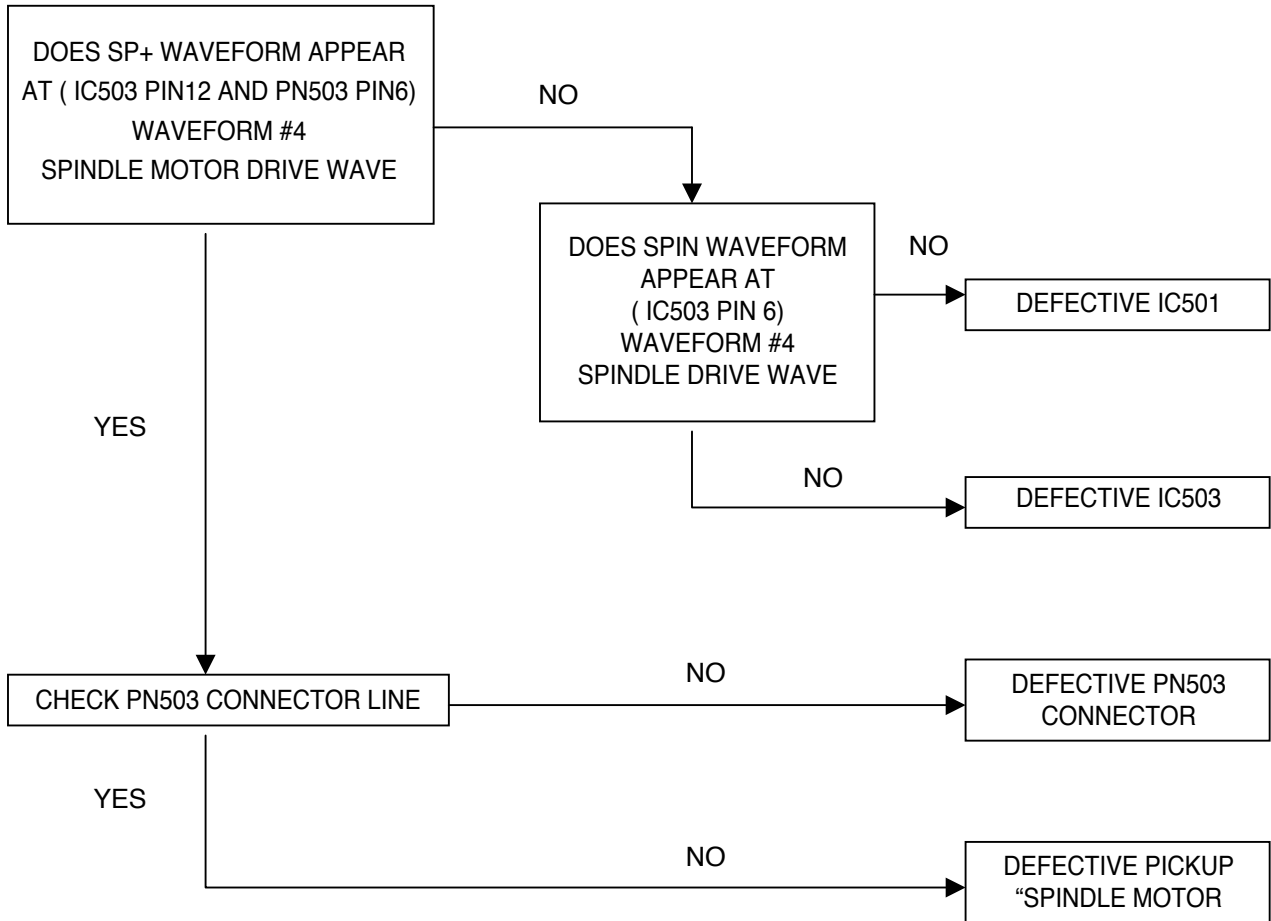


• READING OK CHECK #C (= “NO DISC” DISPLAY)



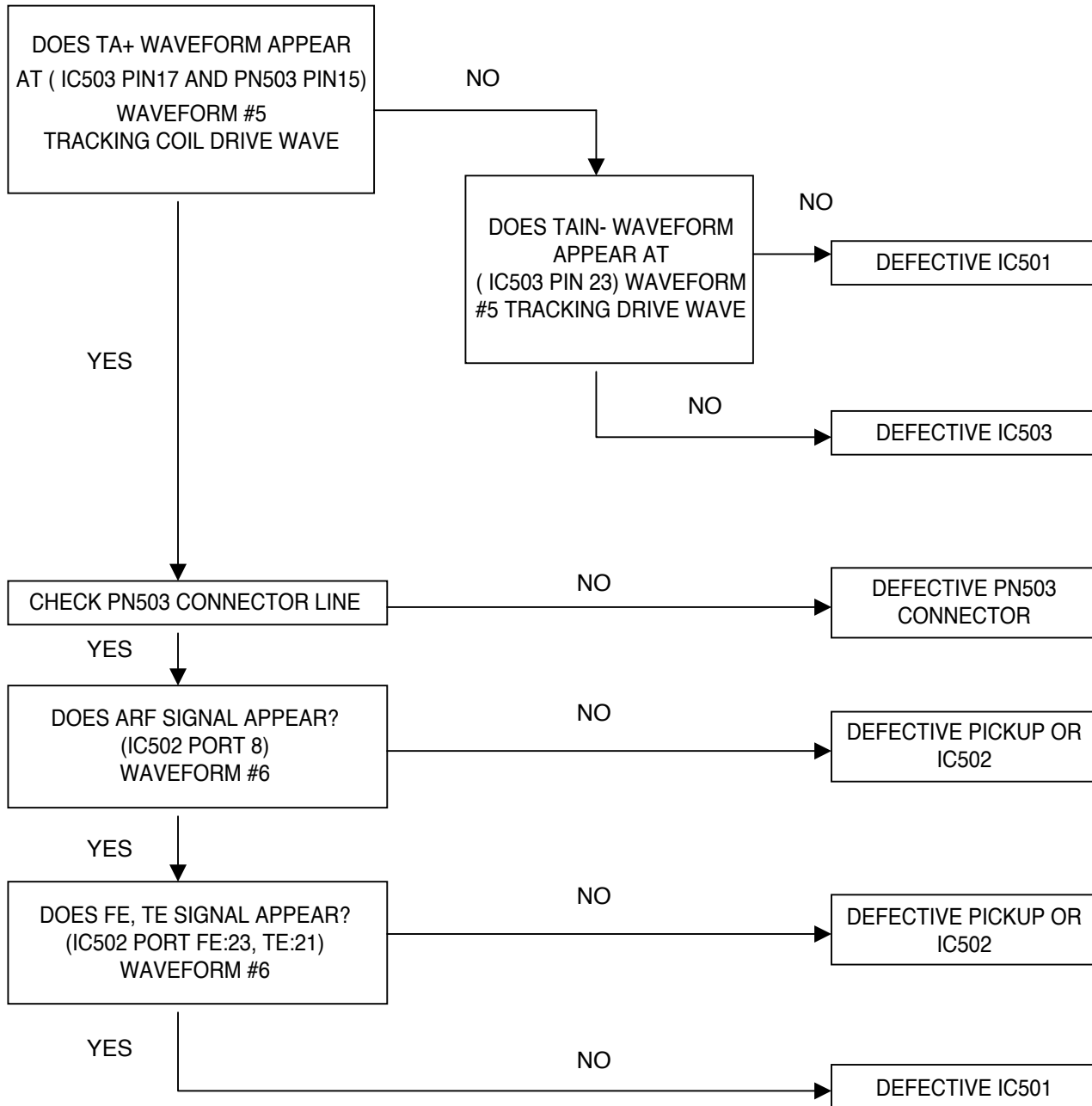
• READING OK CHECK #D (= “NO DISC” DISPLAY)

D



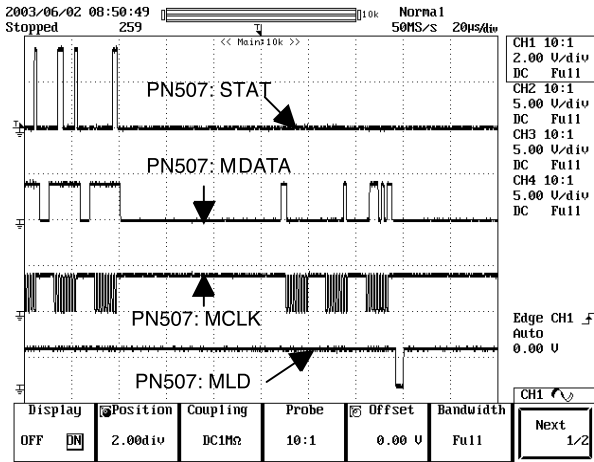
• READING OK CHECK #E (= “NO DISC” DISPLAY)

E

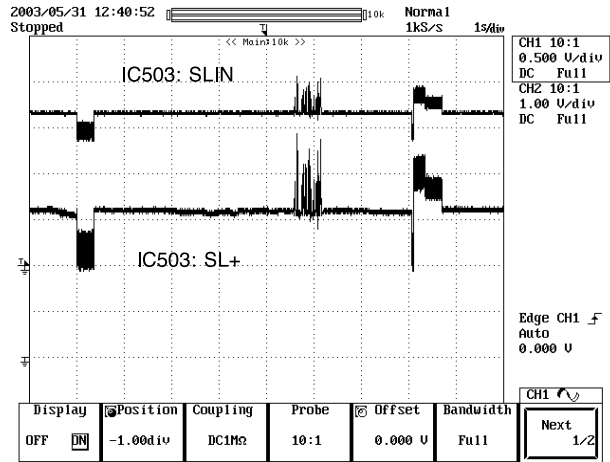


□ WAVEFORMS OF MAKOR CHECK POINT

#1 . MICOM INTERFACE WAVEFORM
(PN507 pin6, 8, 9, 1 0) during normal play

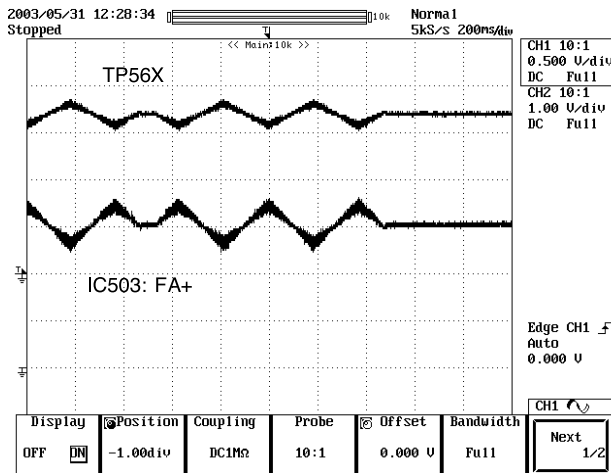


#2. SLED DRIVE AND MOTOR WAVEFORM
(IC503 pin5, 1 4) when focus search

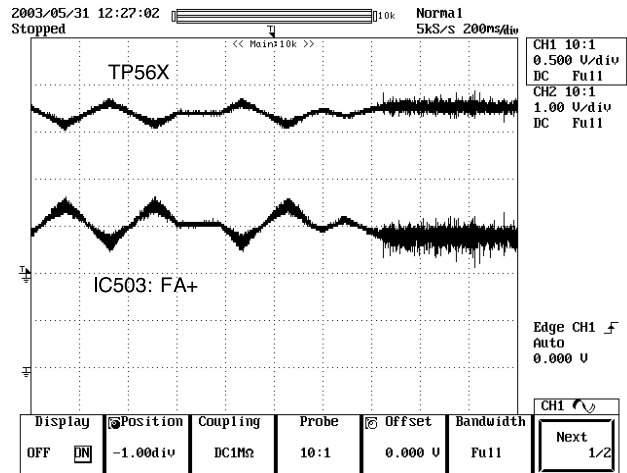


#3. FOCUS DRIVE AND MOTOR WAVEFORM
(TP56 1 , IC503 pin 1 5)

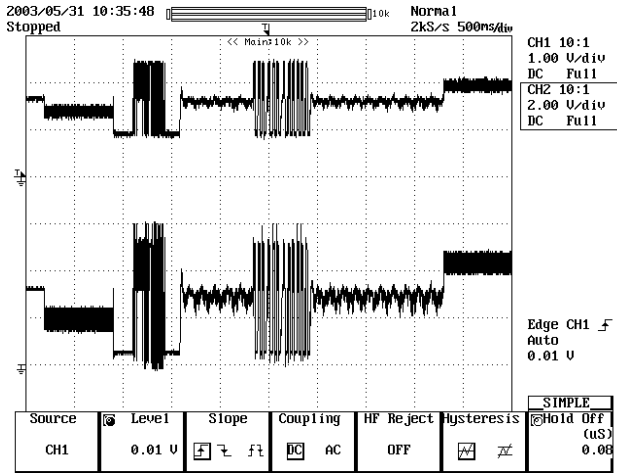
- When focus search failed or there is no disc on tray



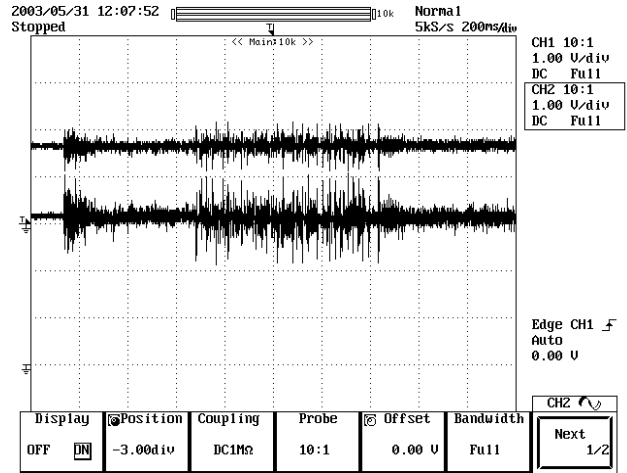
- There is disc on tray and focus search success



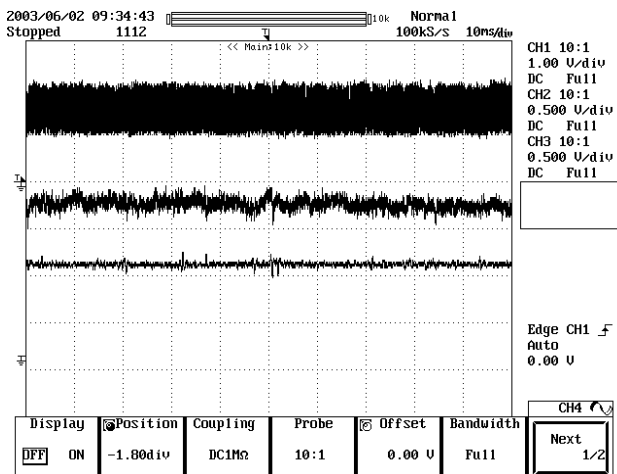
#4. SPINDLE DRIVE AND MOTOR WAVEFORM (IC503 pin6, 1 2) when TOC reading



#5. TRACK DRIVE AND MOTOR WAVEFORM (TP560, IC503 pin23) during normal play

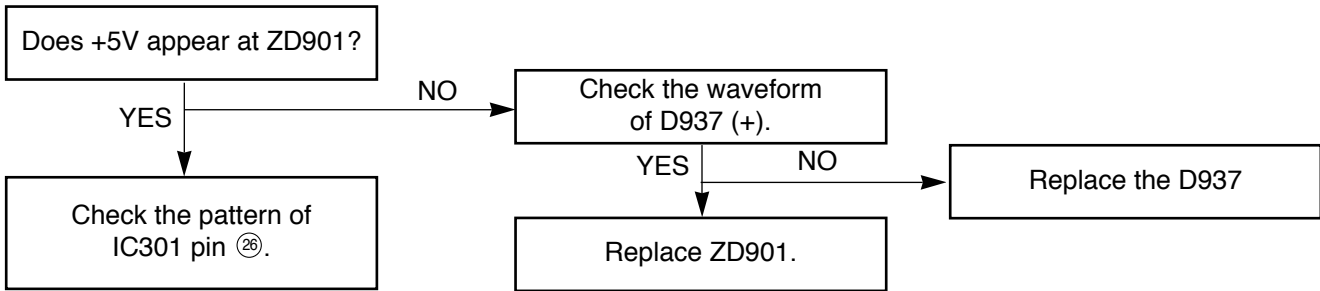


#6. RF, TRACKING AND FOCUS ERROR WAVEFORM (IC502 pin8, 2 1 , 23) during normal play

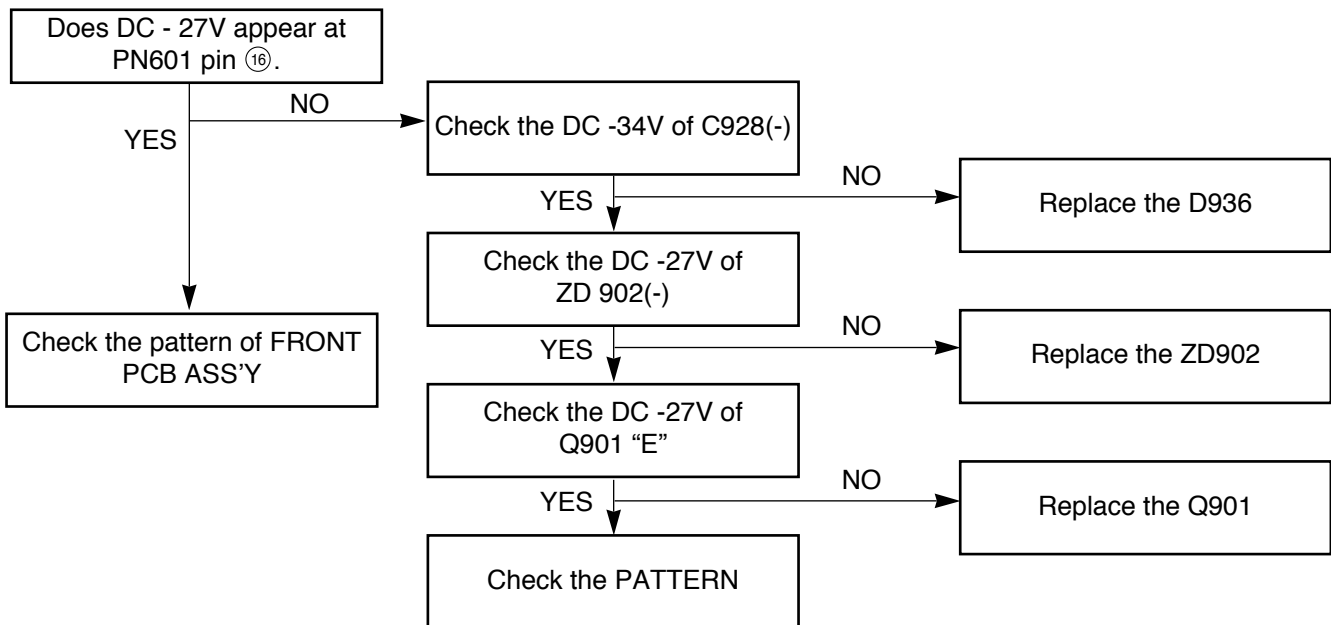


□ AUDIO PART

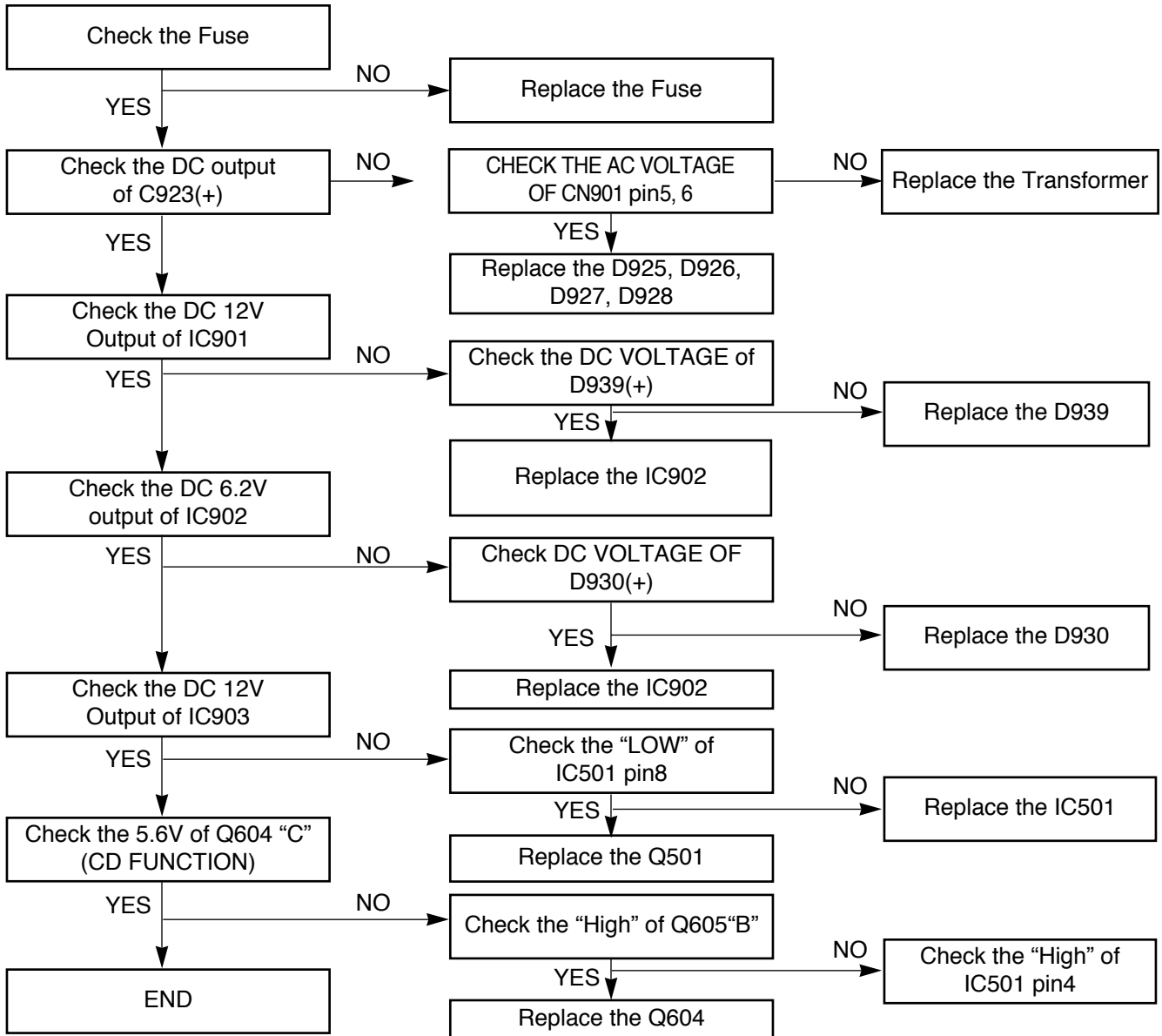
P-SENS PART



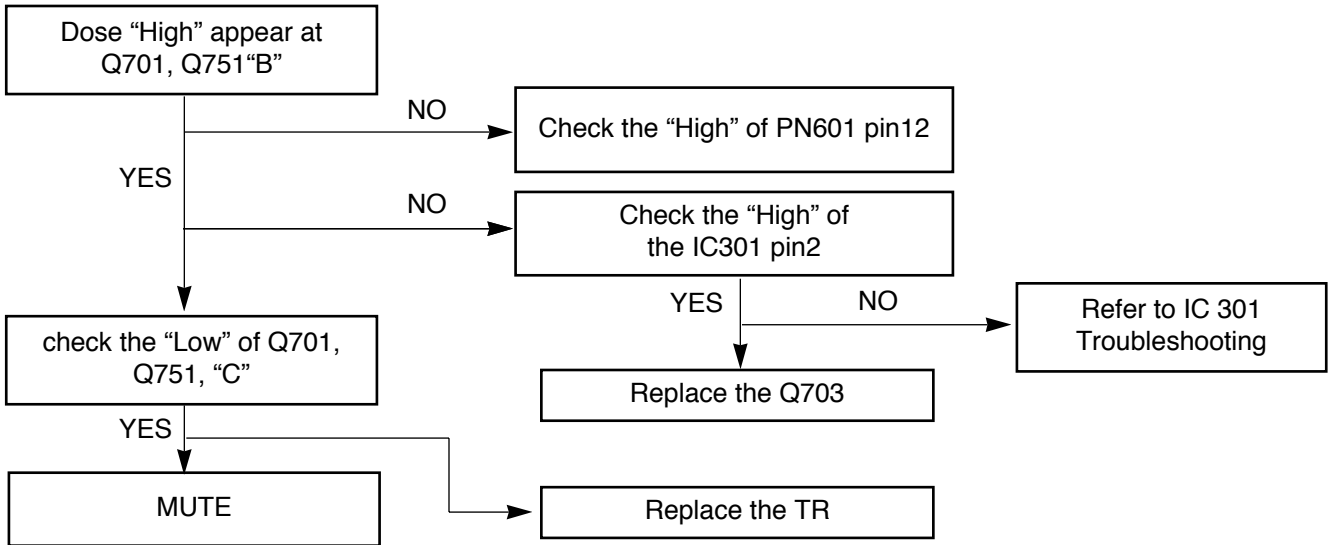
VKK PART



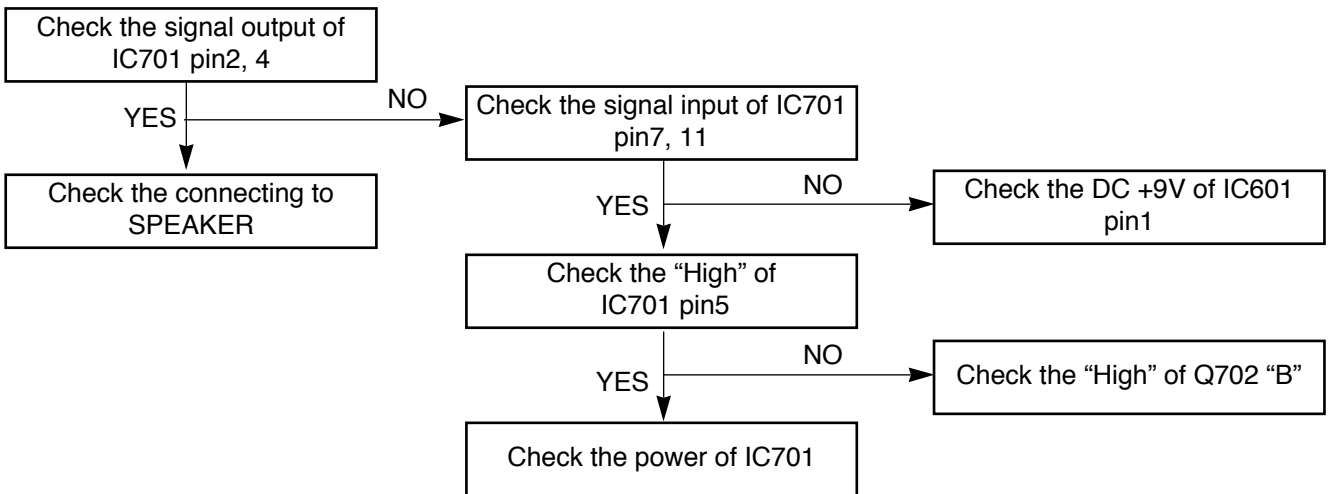
POWER CIRCUIT



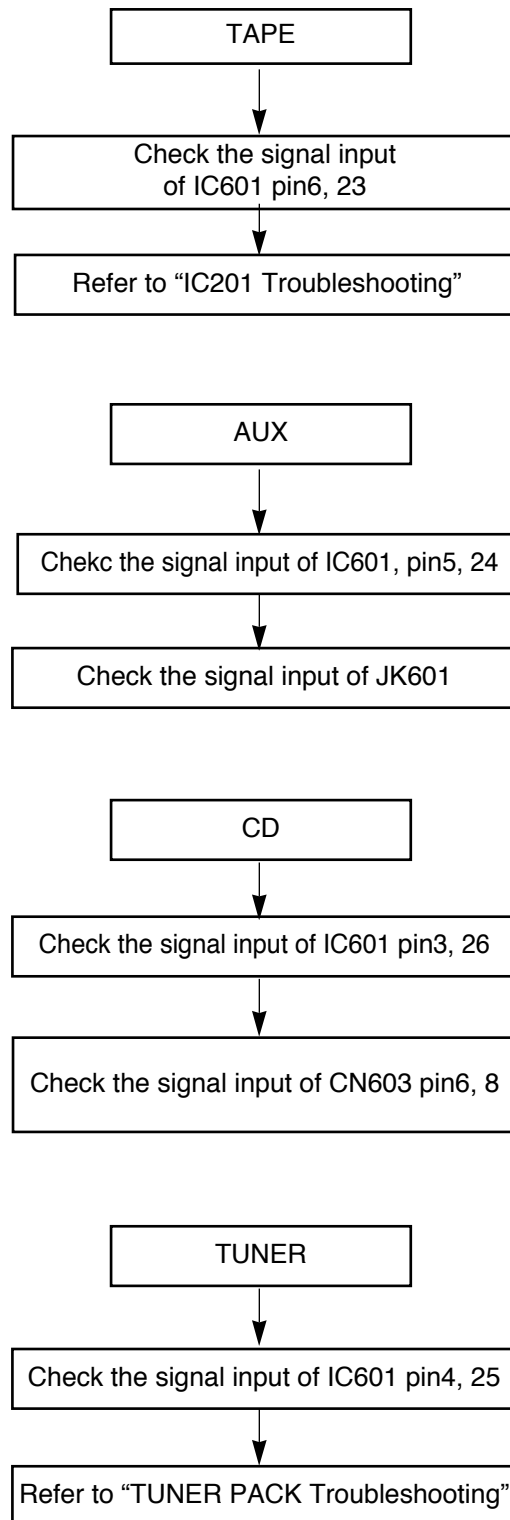
MUTING CIRCUIT (MUTE)



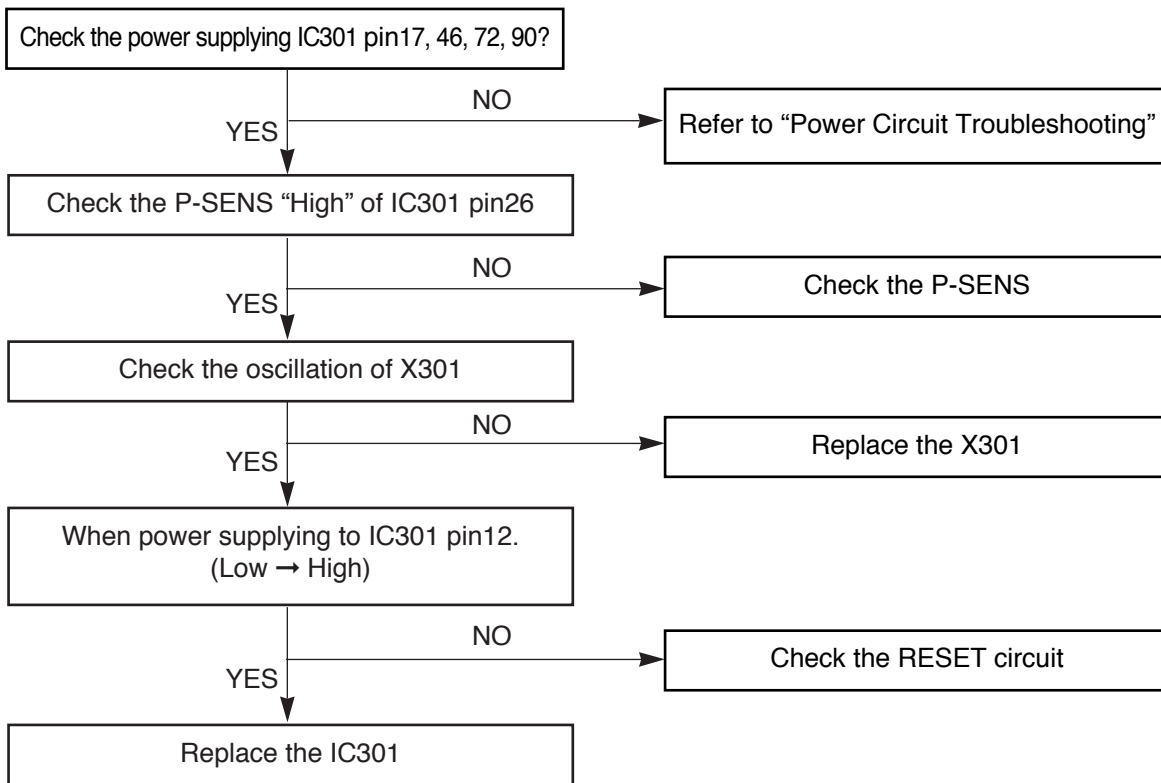
AUDIO ABNORMAL



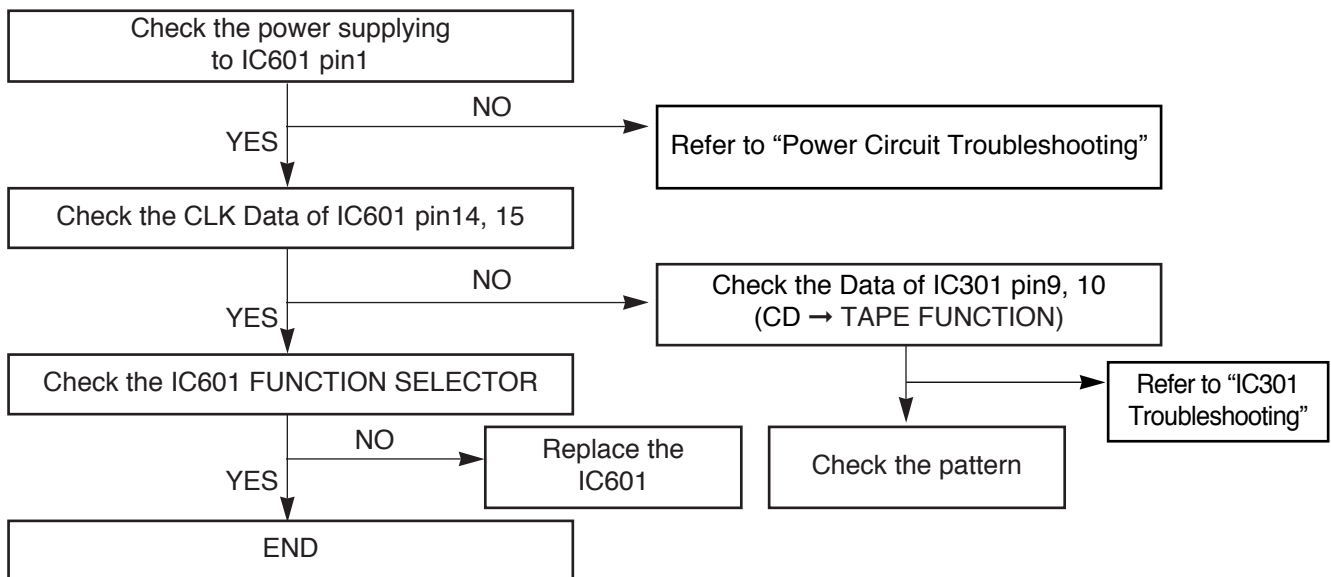
FUNCTION MODE AUDIO ABNORMAL



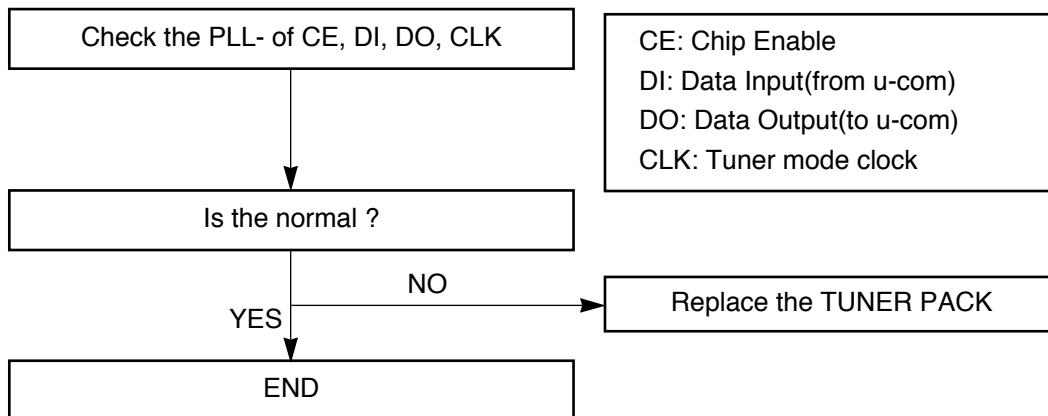
IC301 TROUBLESHOOTING



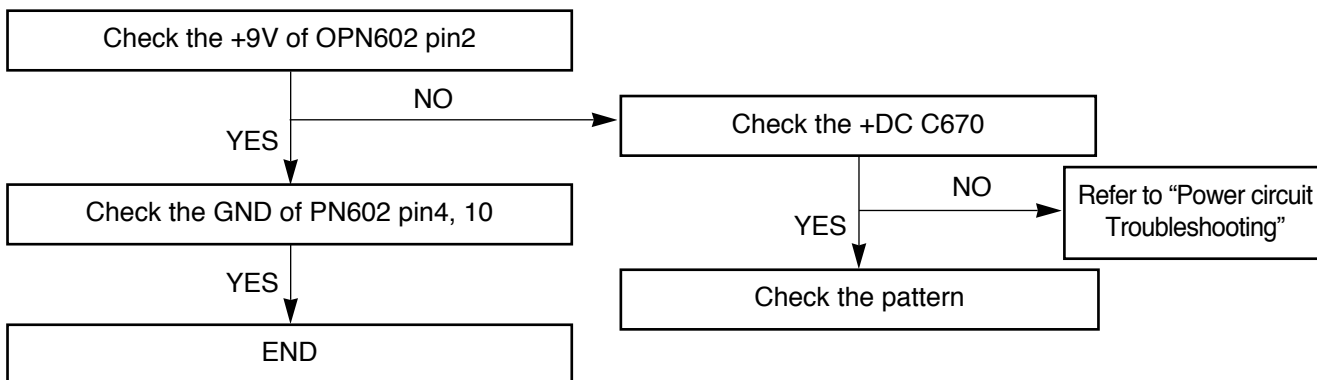
IC601 TROUBLESHOOTING



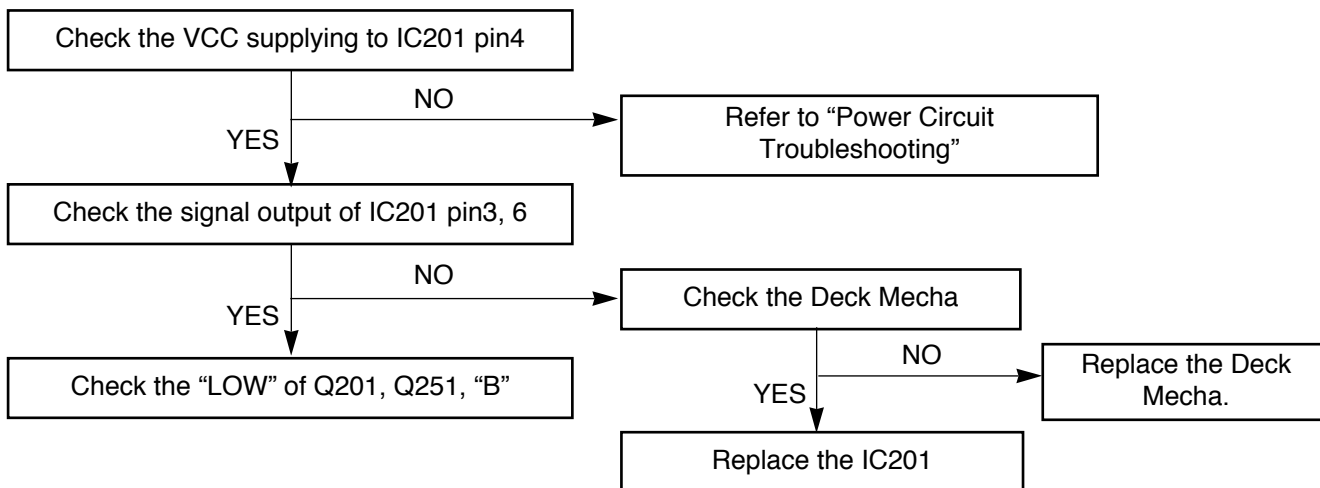
TUNER PACK TROUBLESHOOTING



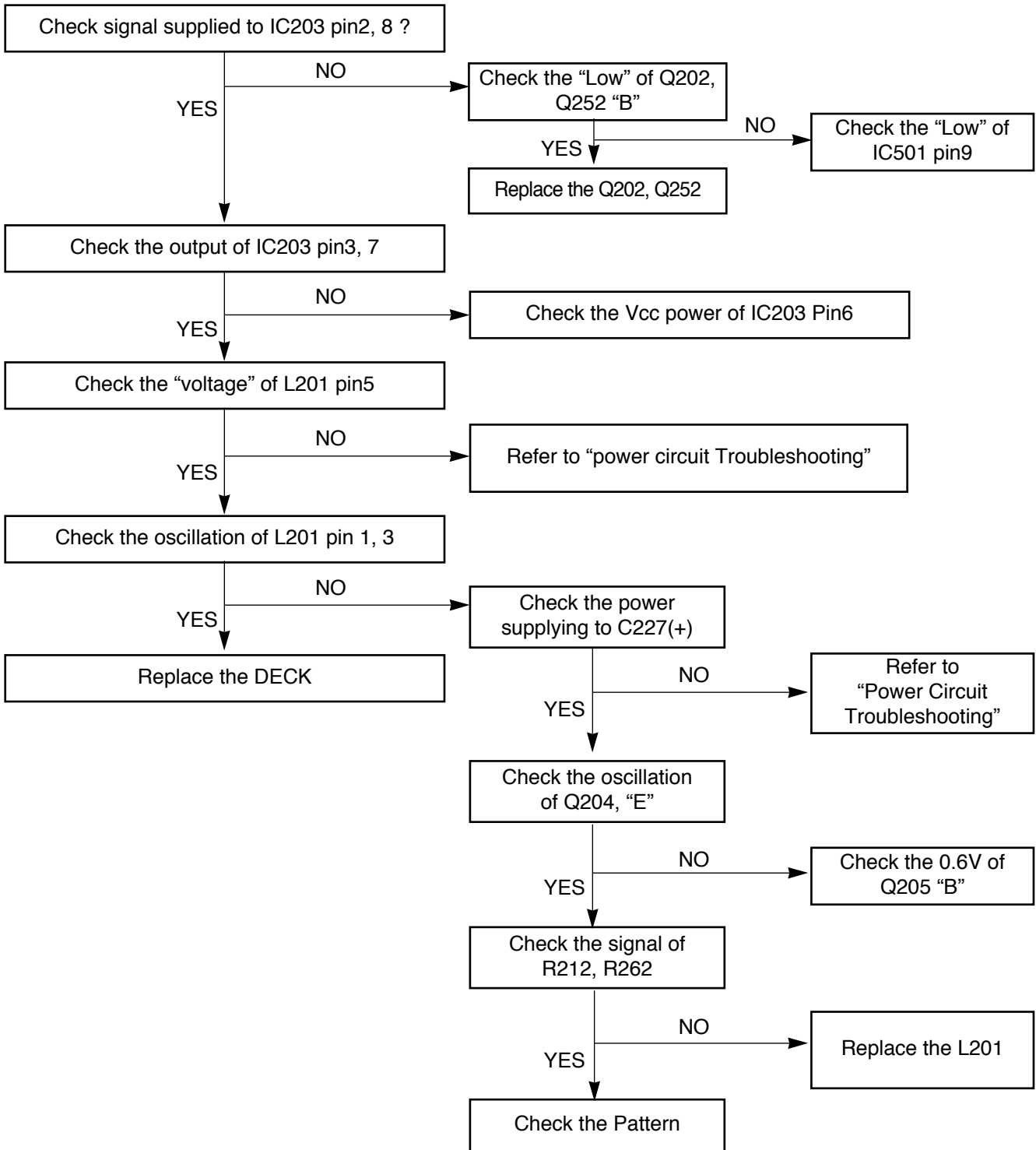
TUNER PACK POWER TROUBLESHOOTING



PLAY

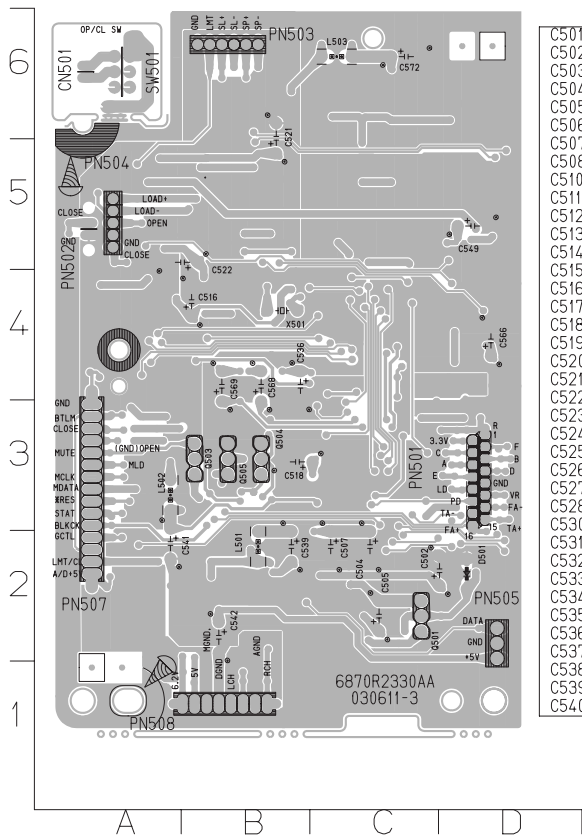


REC (Q252, Q202 ON / R273, R223 HIGH)



MEMO

• CD MAIN P.C. BOARD (SOLDER SIDE)

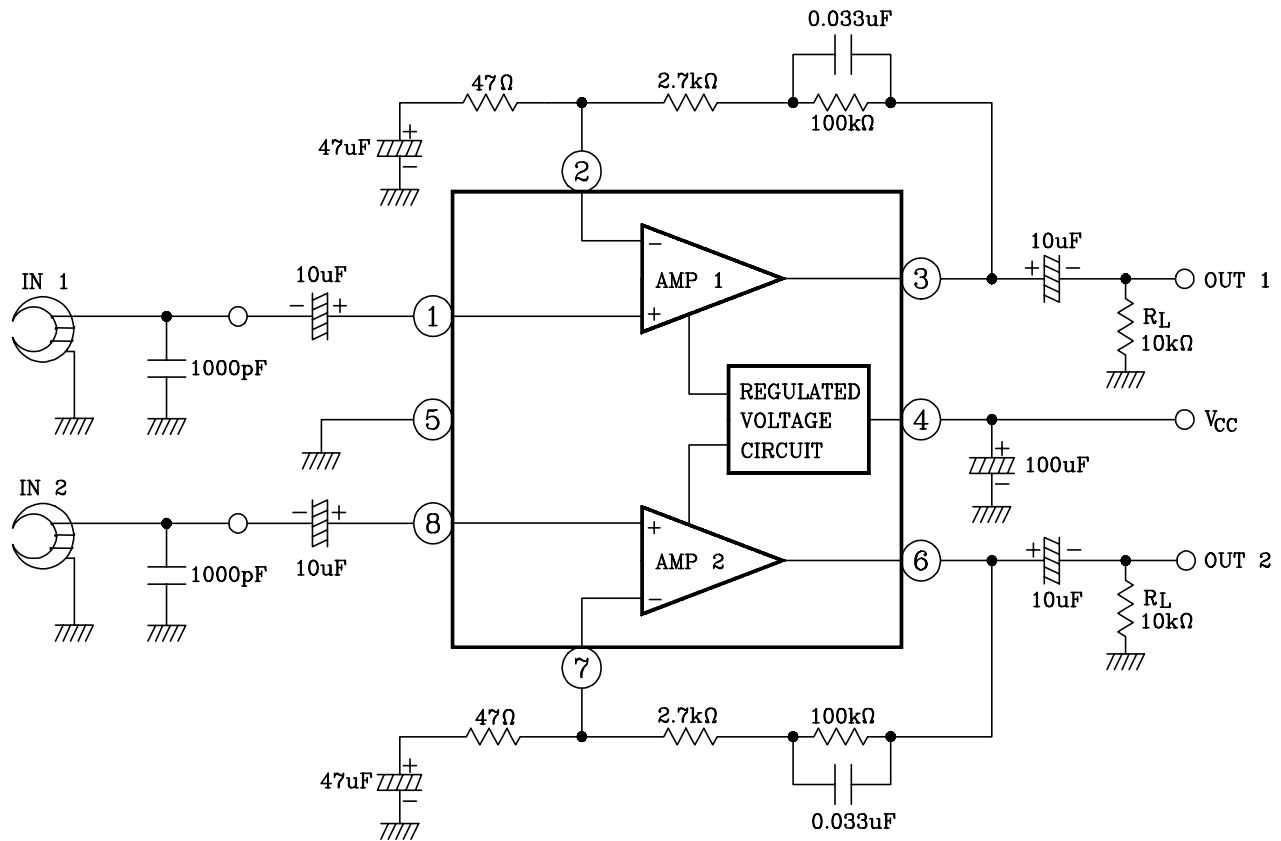


C501	C2	C541	A2	C585	B4	R516	C3	R557	C4	TP18	D6	TP518	B6
C502	D2	C542	B2	C586	A2	R517	C3	R558	B3	TP19	D6	TP520	A5
C503	D3	C543	B3	D501	D2	R518	C3	R559	B3	TP2	B6	TP521	A5
C504	C2	C544	B3	D502	D2	R520	B5	R560	D4	TP20	C5	TP522	A5
C505	C2	C545	D4	IC501	C4	R521	B5	R561	D4	TP21	C5	TP523	A5
C506	C2	C546	A2	IC502	C3	R522	B5	R562	D4	TP22	C5	TP530	A3
C507	C2	C547	A4	IC503	B5	R523	B5	R563	D4	TP23	C5	TP531	A4
C508	C3	C548	A3	IC504	C6	R524	B5	R564	D4	TP24	C5	TP532	A4
C510	C3	C549	D5	IC505	B2	R525	B5	R565	D5	TP25	C5	TP533	A4
C511	C3	C550	C4	L501	B2	R526	B5	R566	D5	TP26	C5	TP534	A4
C512	C3	C551	C4	L502	A3	R527	A5	R567	D5	TP27	C5	TP535	C4
C513	C3	C552	C4	L503	C6	R528	A5	R568	D4	TP28	C5	TP536	C3
C514	C3	C554	C4	L511	B2	R529	A4	R569	D4	TP29	C5	TP540	B2
C515	C3	C555	C4	L512	A3	R530	A5	R571	D4	TP3	C6	TP541	B2
C516	B4	C556	D5	L513	C6	R531	A5	R572	D5	TP30	C5	TP542	A2
C517	D3	C557	D4	PN501	D3	R532	A4	R573	D5	TP31	C5	TP543	B1
C518	B3	C558	D4	PN502	A5	R533	A4	R574	D4	TP32	C5	TP544	B1
C519	C3	C560	D4	PN503	B6	R534	A4	R575	A3	TP33	C5	TP545	B2
C520	B5	C561	D4	PN504	A5	R535	A4	R576	A3	TP34	C5	TP546	B2
C521	B6	C562	D4	PN505	D2	R536	A4	R580	A3	TP35	C5	TP550	D4
C522	B5	C563	D5	PN507	A2	R537	A4	R581	A3	TP4	B6	TP551	D3
C523	B5	C564	C4	PN508	B1	R538	A4	R582	A3	TP5	C6	TP552	C3
C524	B5	C566	D4	Q501	C2	R539	A4	R583	A3	TP501	D4	TP553	C3
C525	B6	C567	C3	Q503	B3	R540	A3	R584	A3	TP502	C3	TP554	D4
C526	B6	C568	B4	Q504	B3	R541	B3	R585	A3	TP503	C3	TP555	C3
C527	A4	C569	B4	Q505	B3	R542	B3	R586	A3	TP504	C3	TP556	D4
C528	A4	C572	C6	R501	D2	R543	B3	R587	A3	TP505	C3	TP557	C3
C530	B4	C573	C6	R504	C3	R544	B3	R588	A2	TP506	C2	TP558	C3
C531	B4	C574	C6	R505	C3	R545	B4	R589	A2	TP507	C2	TP559	C3
C532	B4	C575	D6	R506	D3	R546	A4	TP1	C6	TP508	D2	TP560	B5
C533	B4	C576	C6	R507	D2	R547	C4	TP10	C5	TP510	D2	TP561	B5
C534	C5	C577	C6	R508	C2	R548	C4	TP11	C5	TP511	B6	TP562	A5
C535	C4	C578	C6	R510	C3	R549	C4	TP12	D5	TP512	B3	TP563	A5
C536	B4	C580	C4	R511	C3	R550	B4	TP13	D6	TP513	D5	TP6	C5
C537	C3	C581	C4	R512	C3	R551	C4	TP14	C6	TP514	B6	TP7	C5
C538	D4	C582	C4	R513	C3	R552	B4	TP15	C6	TP515	B6	TP8	C5
C539	B2	C583	C4	R514	C3	R554	C4	TP16	D6	TP516	A5	TP9	C5
C540	C3	C584	B4	R515	C3	R555	D4	TP17	D6	TP517	A6	X501	B4

INTERNAL BLOCK DIAGRAM OF ICs

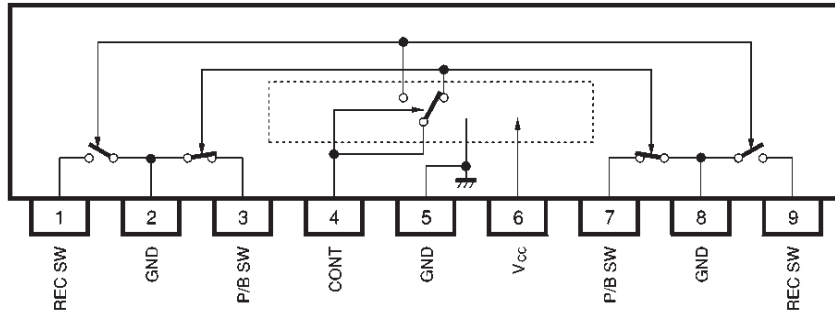
■ KIA6225P/S (IC201)

BIPOLAR LINEAR INTEGRATED CIRCUIT

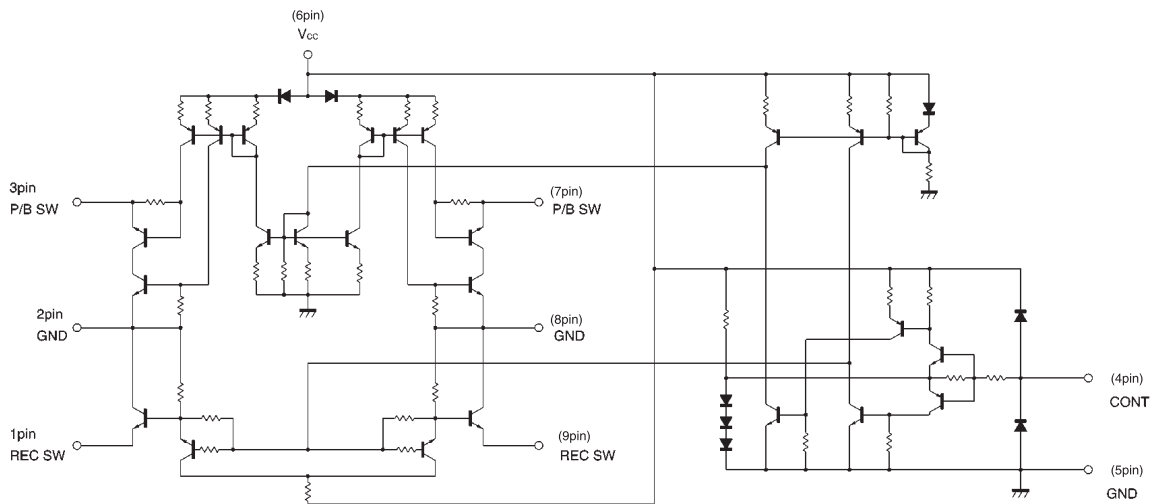


■ BA3126N (IC202)

2-channel head switch for radio cassette recorders

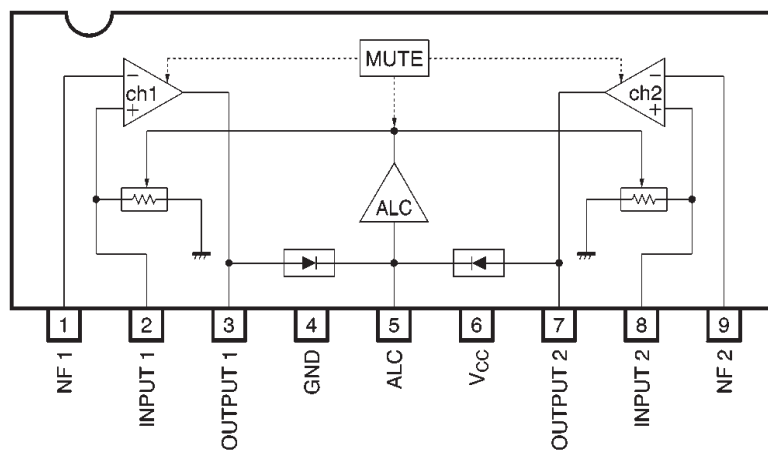


• Internal circuit configuration



■ BA3308 (IC203)

Dual preamplifier with ALC

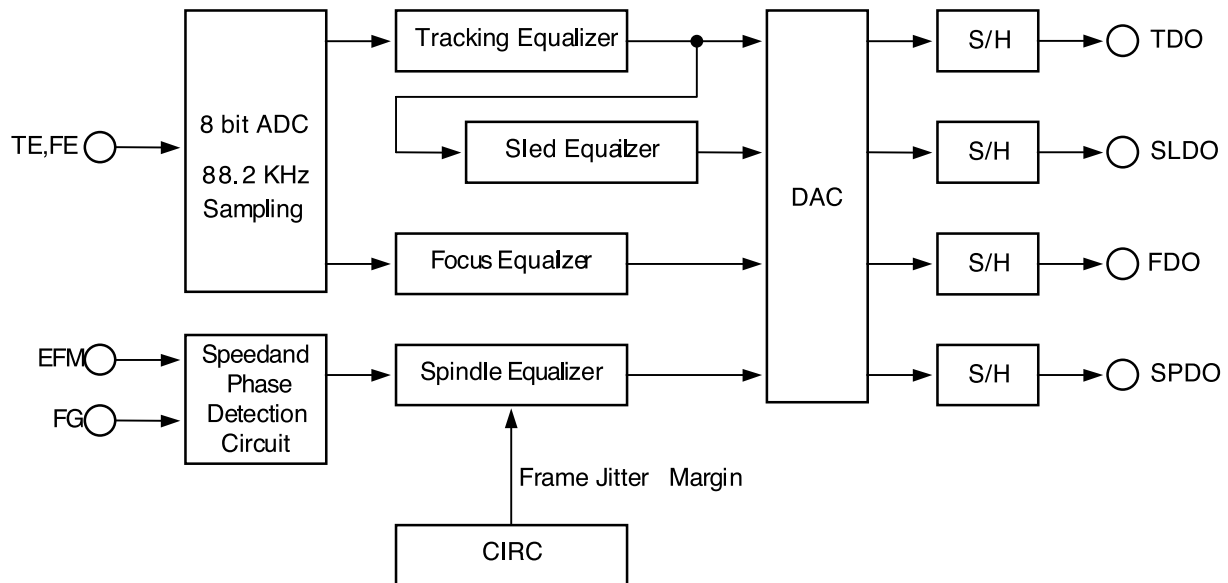


■ MN6627933CG (IC501)

Digital Servo Block Diagrams

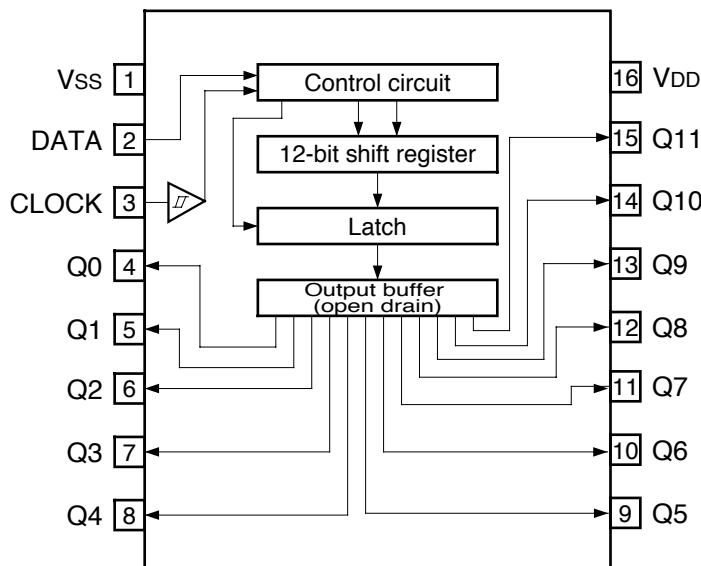
• Overview

The focus servo circuit performs analog/digital conversion on FE(the focus error signal), while the tracking and sled servo circuits do so on TE(the tracking error signal), then they each pass that result through an equalizer, perform digital/analog conversion, and output it, At the spindle servo, based on the EFM signal during CLV control or the FG signal during CAV control, the calculated value passes through an equalizer, undergoes digital/analog conversion, and is output.

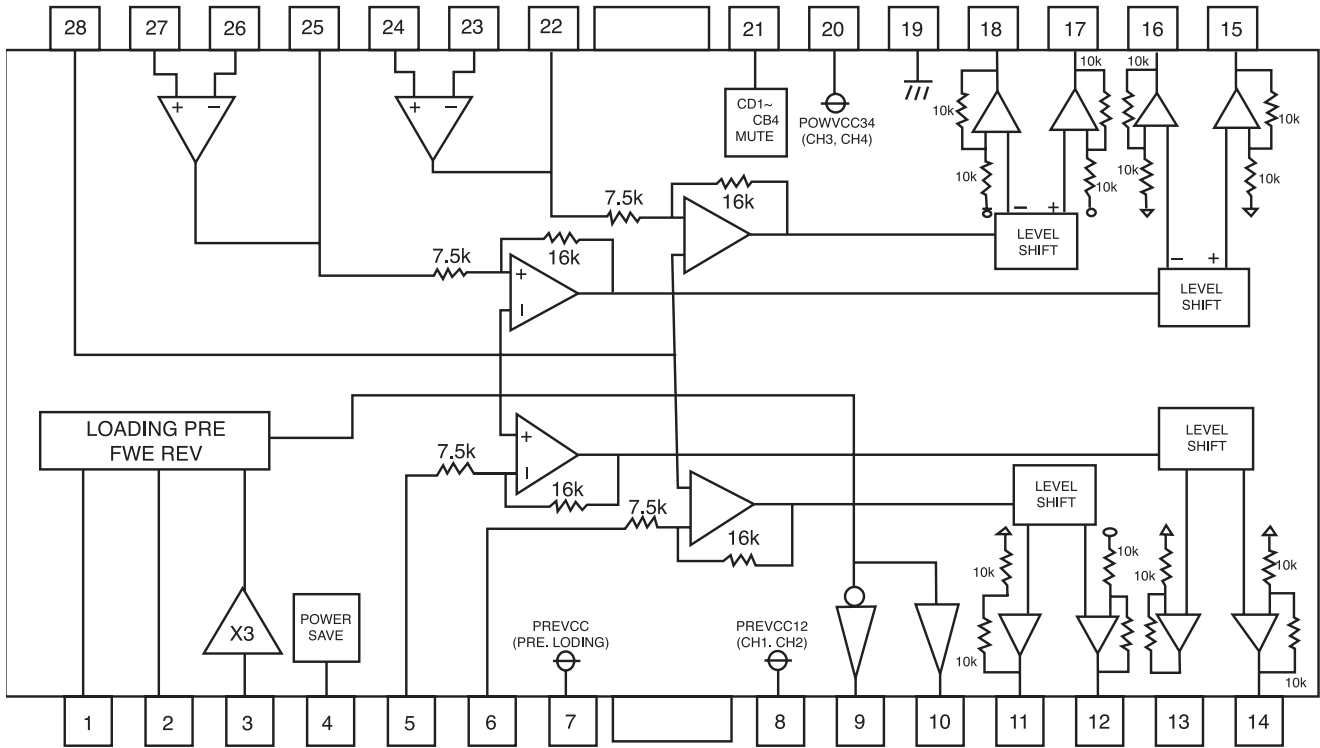


■ BU2090F (IC501)

-12 -bit, Serial IN, parallel OUT driver



■ BA5810FP (IC503)

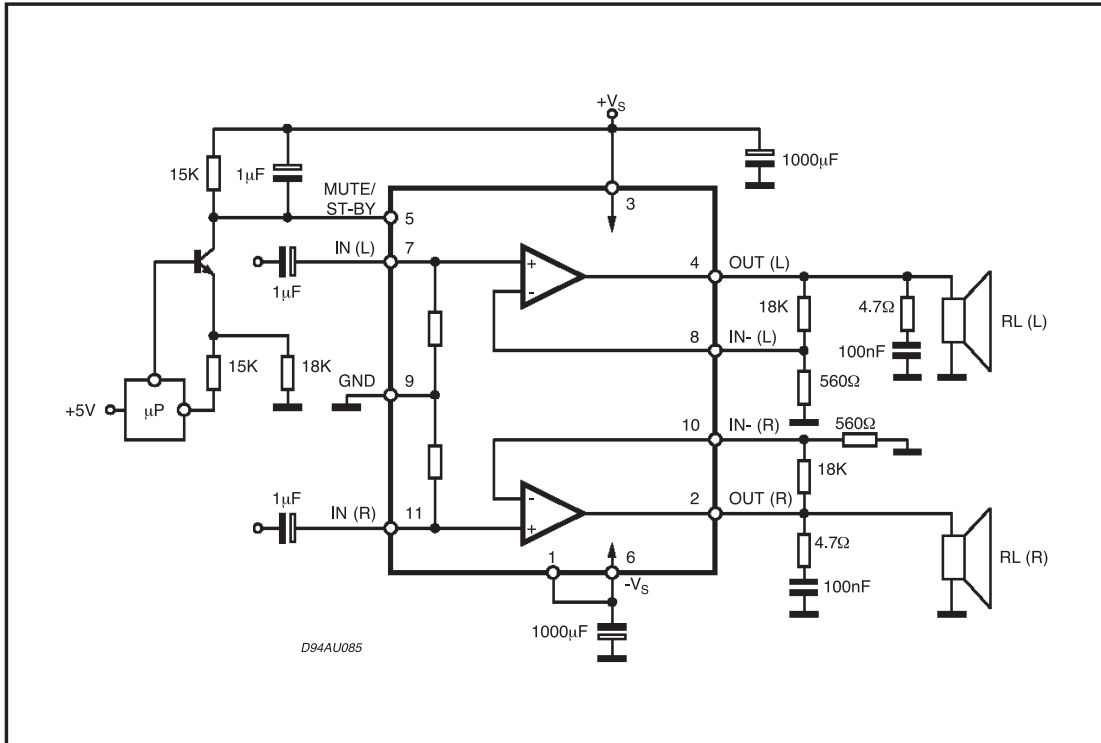


■ TDA7265 (IC701)

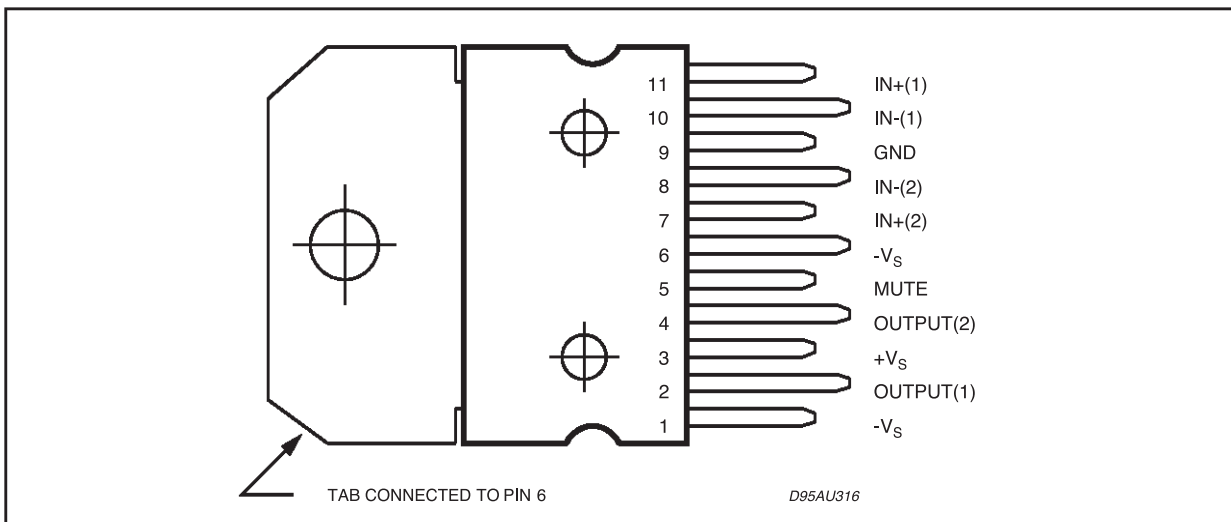
25 +25W STEREO AMPLIFIER WITH MUTE & ST-BY

• DESCRIPTION

The TDA7265 is class AB dual Audio power am-plifier assembled in the Multiwatt package, spe-cially designed for high quality sound application as Hi-Fi music centers and stereo TV sets.

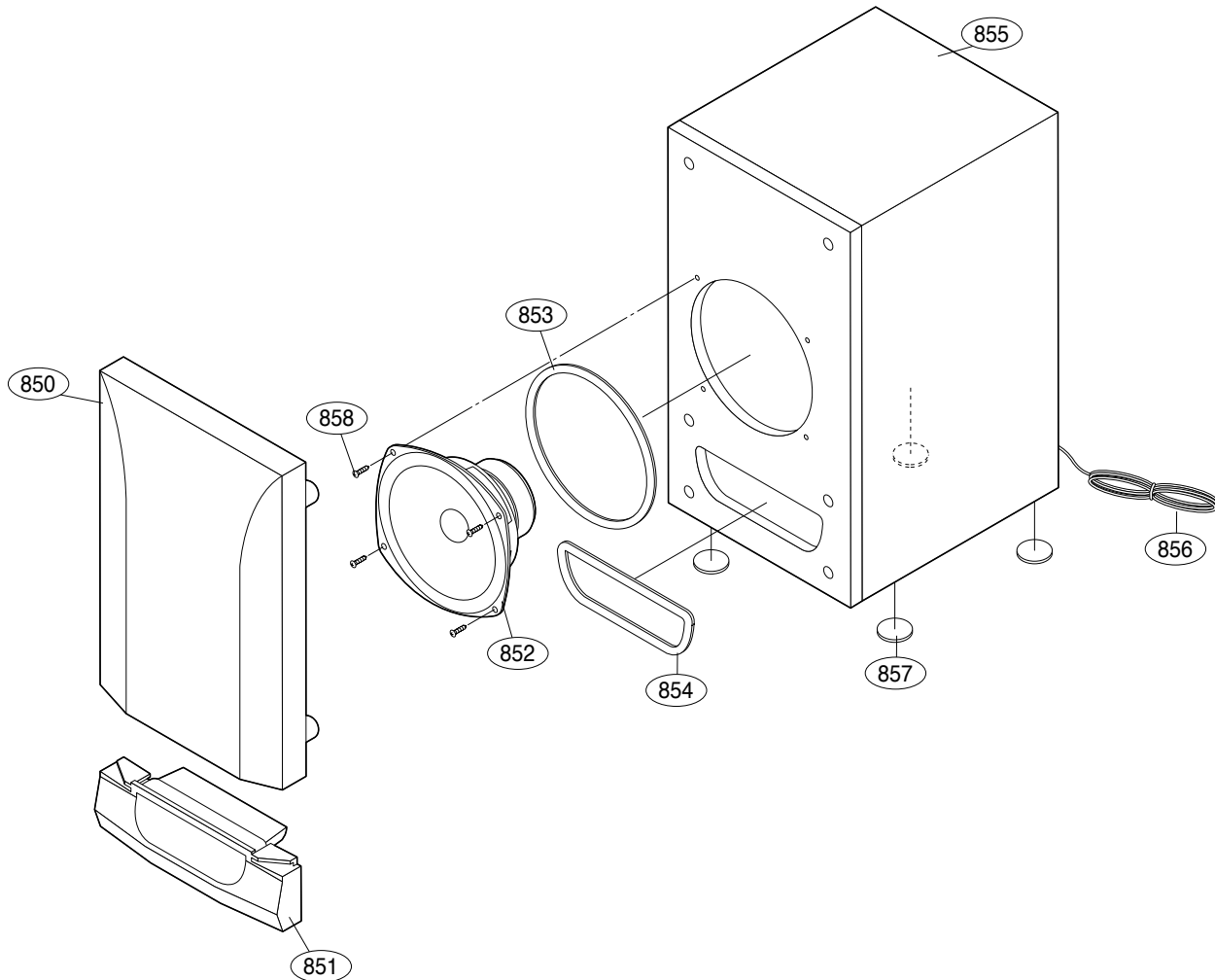


• PIN CONNECTION (Top view)



SECTION 4. SPEAKER SECTION

MODEL: LXS-M230

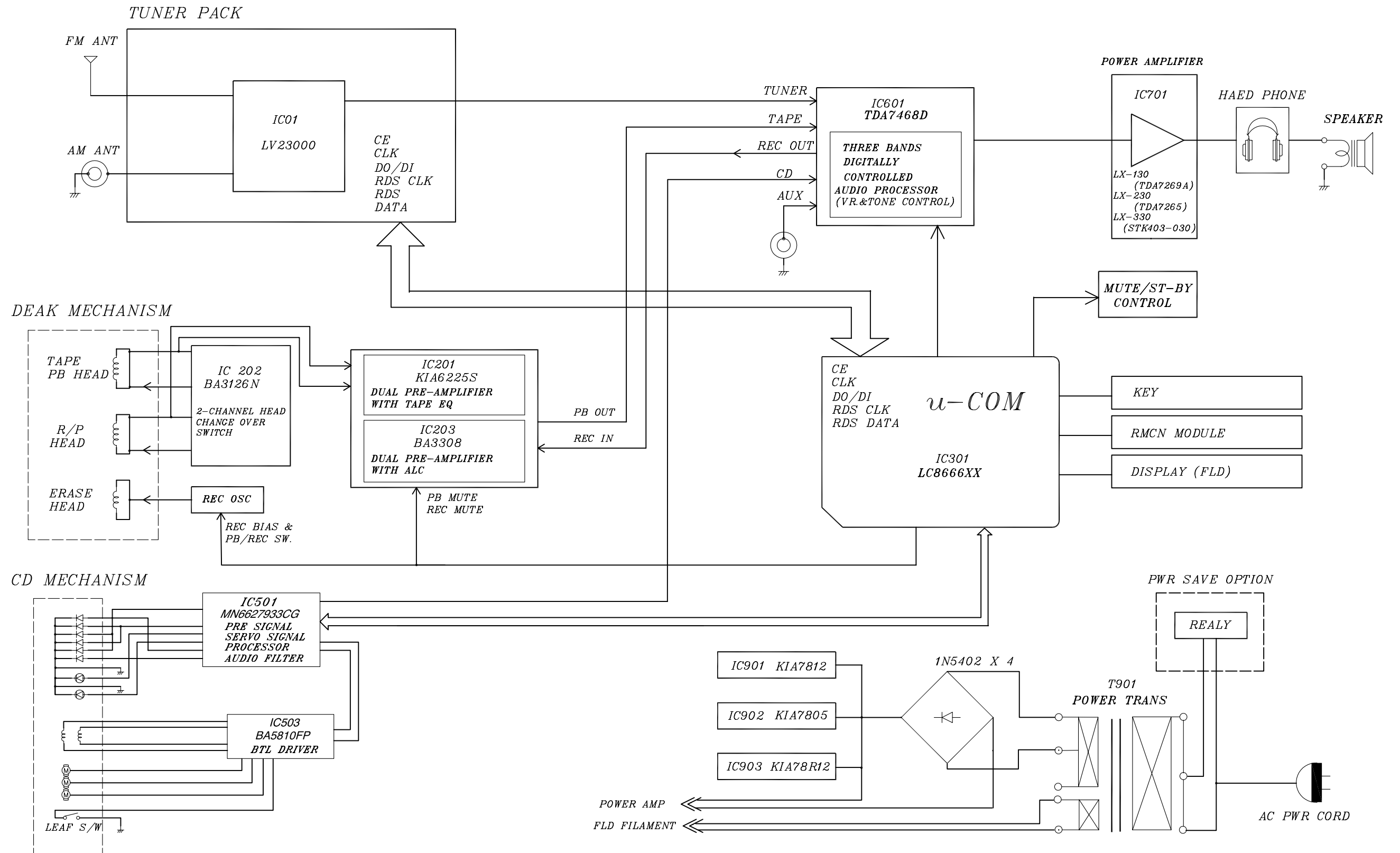


RUN DATE : 01.JULY.2003

LOCA.NO.	PART NO.	DESCRIPTON	SPECIFICATION	REMARKS
850	3701RM0039A	NET ASSEMBLY	LXS-230, NET ASSY	
851	3720RMF043A	PANEL,FRONT	FRONT LX-230, RESIN:L.GRAY, SP	
852	6400SCSG03A	SPEAKER,FULLRANGE	CW-125B30L SAMMI 6-0 OHM 30 W	
853	4766RM0012A	FELT	FE-196E BLACK WOOFER	
854	4766RM0029A	FELT	1.0T BLACK LXS-230, FOR DUCT	
855	3091RMW048A	CABINET ASSEMBLY	LXS-230, CABINET ASSY"	
856	6852SCK004A	CORD,A/V	FE-M100E , 0.16 * 18/2C (CORD	
857	3610RM0009A	FOOT	LXS-330, EVA(BLACK) PHI15X1T	
858	353M050C	SCREW	BH 3.5X16 FBK	


MEMO

BLOCK DIAGRAM

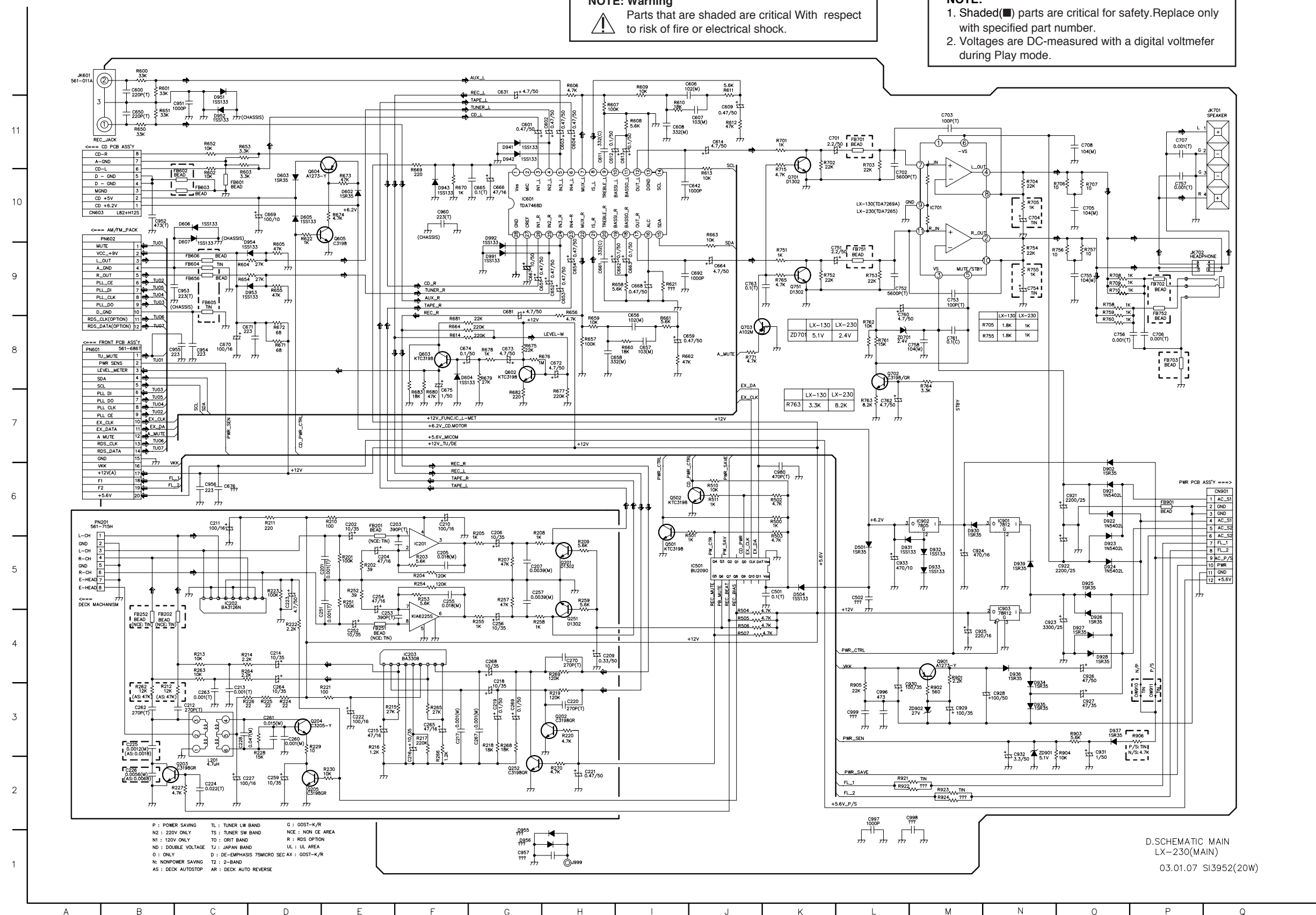


SCHEMATIC DIAGRAMS

• MAIN SCHEMATIC DIAGRAM

NOTE: Warning
 Parts that are shaded with respect to risk of fire or electrical shock.

NOTE:
 1. Shaded (■) parts are critical for safety. Replace only with specified part number.
 2. Voltages are DC-measured with a digital voltmeter during Play mode.



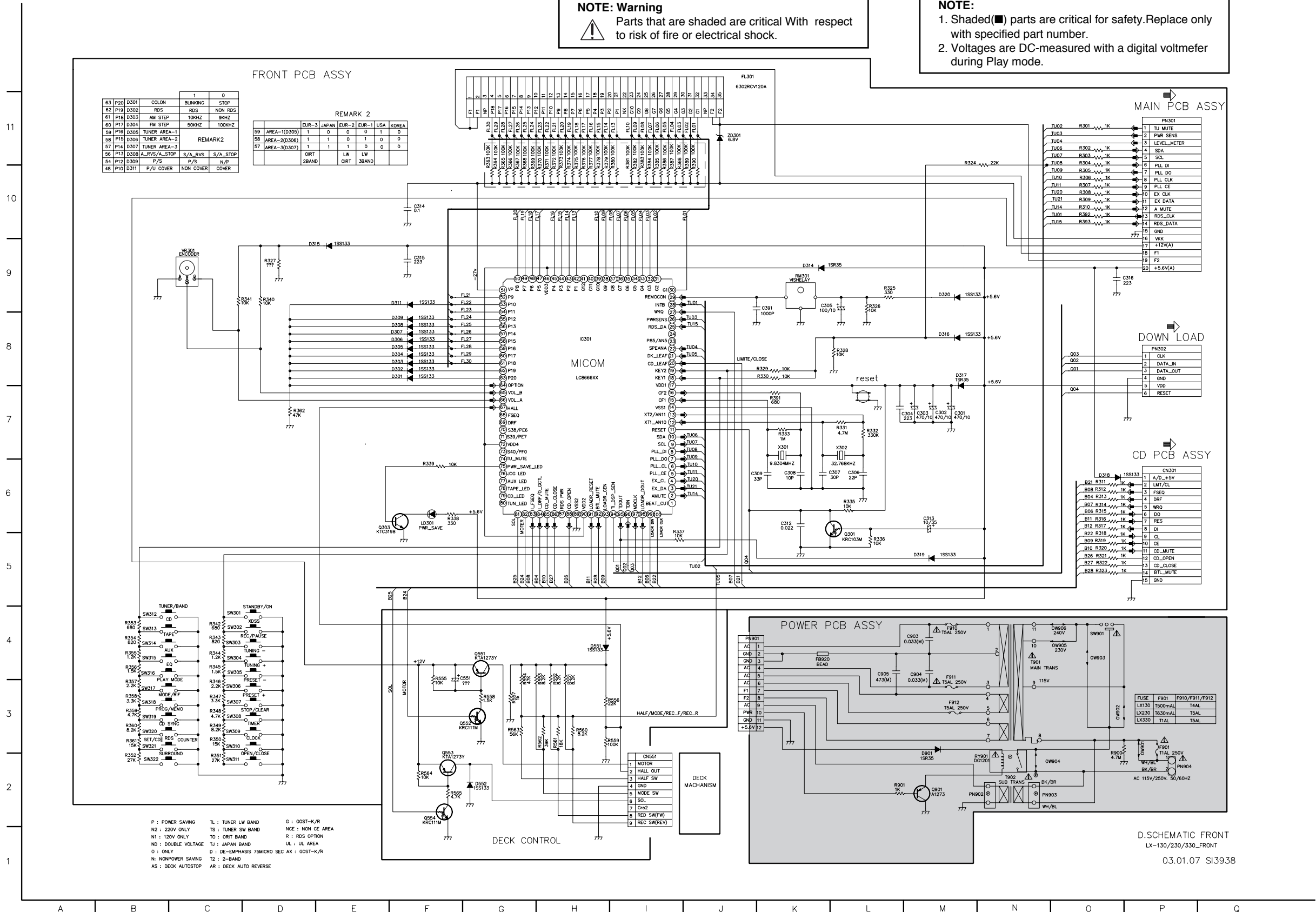
P : POWER SAVING TL : TUNER LW BAND G : GDS1-K/R
 N2 : 220V ONLY TS : TUNER SW BAND NEZ : NON CE AREA
 N1 : 120V ONLY TO : GRIT BAND R : RDS OPTION
 ND : DOUBLE VOLTAGE TJ : JAPAN BAND UL : UL AREA
 O : ONLY D : DE-EMPHASIS 75MICRO SEC AX : GDS1-K/R
 N : NONPOWER SAVING T2 : 2-BAND
 AS : DECK AUTOSTOP AR : DECK AUTO REVERSE

D.SCHEMATIC MAIN
 LX-230(MAIN)
 03.01.07 SI3952(20W)

FRONT/POWER SCHEMATIC DIAGRAM

NOTE: Warning
 ⚠ Parts that are shaded are critical With respect to risk of fire or electrical shock.

NOTE:
 1. Shaded(■) parts are critical for safety. Replace only with specified part number.
 2. Voltages are DC-measured with a digital voltmeter during Play mode.



63	P20	D301	COLON	BLINKING	STOP
62	P19	D302	RDS	RDS	NON RDS
61	P18	D303	AM STEP	10KHZ	9KHZ
60	P17	D304	FM STEP	50KHZ	100KHZ
59	P16	D305	TUNER AREA-1		
58	P15	D306	TUNER AREA-2		
57	P14	D307	TUNER AREA-3		
56	P13	D308	A_RVS/A_STOP	S/A_RVS	S/A_STOP
54	P12	D309	P/S	P/S	N/P
48	P10	D311	P/U COVER	NON COVER	COVER

REMARK 2

	EUR-3	JAPAN	EUR-2	EUR-1	USA	KOREA
59	AREA-1(10300)	1	0	0	1	0
58	AREA-2(9300)	1	1	0	1	0
57	AREA-3(9307)	1	1	1	0	0
	ORT		LW	LW		
	2BAND		ORT	2BAND		

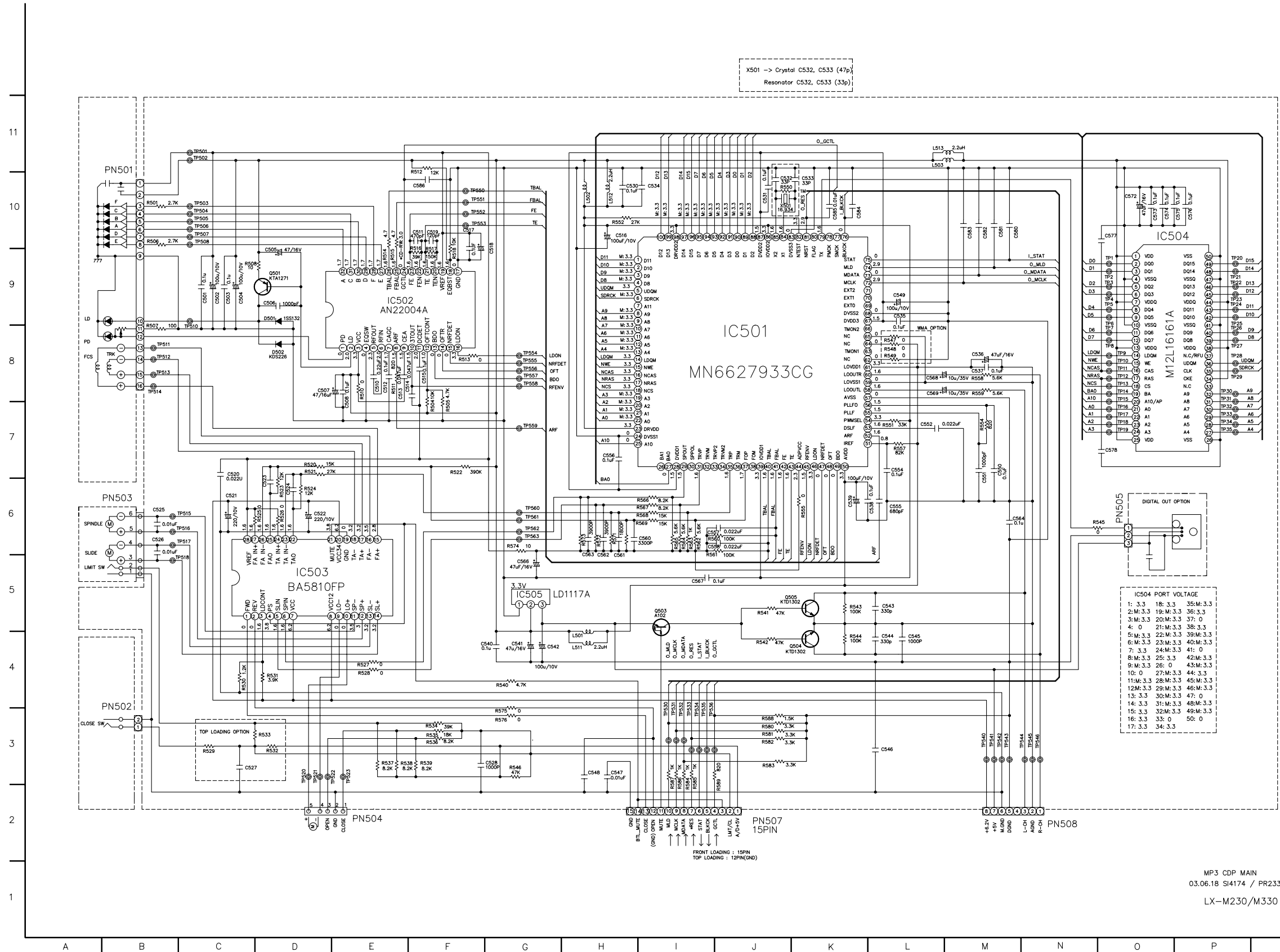
P : POWER SAVING TL : TUNER LW BAND G : GOST-K/R
 N2 : 220V ONLY TS : TUNER SW BAND NCE : NON CE AREA
 N1 : 120V ONLY TO : ORT BAND R : RDS OPTION
 ND : DOUBLE VOLTAGE TJ : JAPAN BAND UL : UL AREA
 O : ONLY D : DE-EMPHASIS 75MICRO SEC AX : GOST-K/R
 N : NONPOWER SAVING T2 : 2-BAND
 AS : DECK AUTOSTOP AR : DECK AUTO REVERSE

D. SCHEMATIC FRONT
 LX-130/230/330_FRONT
 03.01.07 SI3938

• CDP SCHEMATIC DIAGRAM

LOCATION GUIDE

C501	C9	R510	E8
C502	C9	R511	F8
C503	C9	R512	F10
C504	D9	R513	F8
C505	D9	R514	E9
C506	D9	R515	F9
C507	E8	R516	F9
C508	E7	R517	F9
C510	E8	R518	F9
C511	F10	R520	D7
C512	E8	R521	D7
C513	F8	R522	F7
C514	F8	R523	D6
C515	F8	R524	D6
C516	H10	R525	D6
C522	D6	R531	D4
C518	G9	R527	E4
C519	F10	R528	E4
C520	C7	R529	C3
C521	C6	R530	D4
C522	D6	R532	D3
C523	D6	R533	D3
C524	D6	R534	F3
C525	B6	R535	F3
C526	B6	R536	F3
C527	D3	R537	E3
C528	C3	R538	F3
C530	H10	R539	F3
C531	J10	R539	F3
C532	K10	R540	J5
C533	K10	R541	J5
C534	H10	R542	J4
C535	L9	R543	K5
C536	M8	R544	K4
C537	M8	R545	O6
C538	L6	R546	G3
C539	L6	R547	L8
C540	G4	R548	L8
C541	G4	R549	L8
C542	H4	R550	K10
C543	L5	R551	L7
C544	L4	R552	H10
C545	L4	R554	M7
C546	L3	R555	K6
C547	H3	R557	L7
C548	H3	R558	M8
C549	L9	R559	M8
C550	M7	R560	J6
C551	M6	R561	J5
C552	L7	R562	J6
C554	L7	R563	I6
C555	L6	R564	I6
C556	H7	R565	I6
C557	J6	R566	I6
C558	J6	R567	I6
C560	I6	R568	I6
C561	H5	R569	I6
C562	H5	R571	H6
C563	H5	R572	H6
C564	N6	R573	H6
C566	G5	R574	G6
C567	I5	R575	G3
C568	L8	R576	G3
C569	L8	R580	J3
C572	O10	R581	J3
C573	O10	R582	J3
C574	P10	R583	J3
C575	P10	R584	J2
C576	P10	R585	I2
C577	O10	R586	I2
C578	O7	R587	I2
C580	N10	R588	J2
C581	M10	R589	J2
C582	M10	R590	J3
C583	M10	X501	K10
C584	L10		
C585	K10		
C586	F10		
D501	D9		
D502	D8		
IC501	J8		
IC502	E9		
IC503	D5		
IC504	O10		
IC505	C5		
L501	H4		
L502	H10		
L503	M11		
L511	H4		
L512	H10		
L513	M11		
PN501	B10		
PN502	B3		
PN503	B6		
PN504	E2		
PN505	O6		
PN507	J2		
PN508	N2		
Q501	D9		
Q503	I5		
Q504	K4		
Q505	K5		
R501	B10		
R504	F7		
R505	F7		
R506	B10		
R507	B8		
R508	D9		

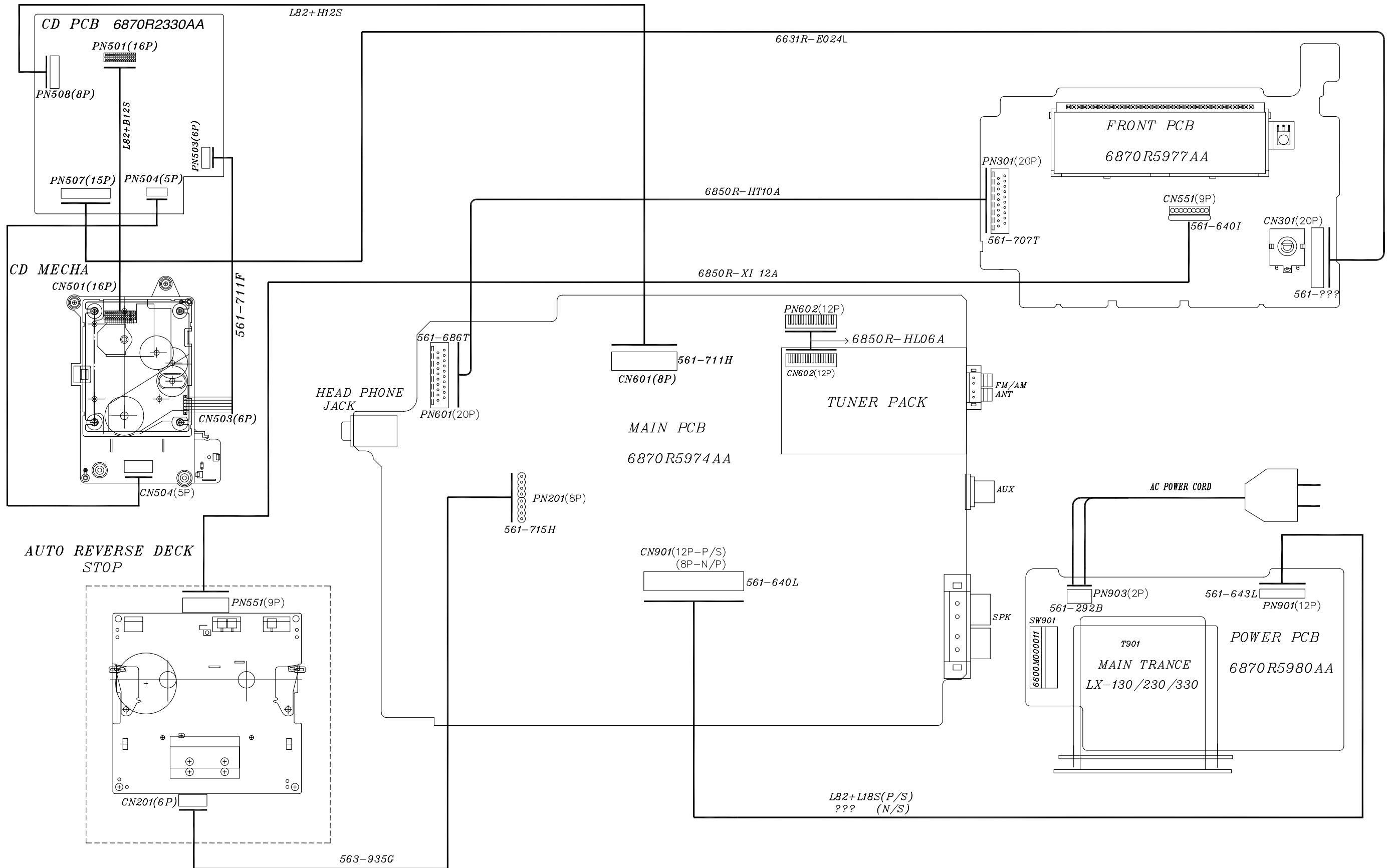


IC504 PORT VOLTAGE

1: 3.3	18: 3.3	35:M: 3.3
2:M: 3.3	19: M: 3.3	36: 3.3
3:M: 3.3	20:M: 3.3	37: 0
4: 0	21:M: 3.3	38: 3.3
5:M: 3.3	22:M: 3.3	39:M: 3.3
6:M: 3.3	23:M: 3.3	40:M: 3.3
7: 3.3	24:M: 3.3	41: 0
8:M: 3.3	25: 3.3	42:M: 3.3
9:M: 3.3	26: 0	43:M: 3.3
10: 0	27:M: 3.3	44: 3.3
11:M: 3.3	28:M: 3.3	45:M: 3.3
12:M: 3.3	29:M: 3.3	46:M: 3.3
13: 3.3	30:M: 3.3	47: 0
14: 3.3	31:M: 3.3	48:M: 3.3
15: 3.3	32:M: 3.3	49:M: 3.3
16: 3.3	33: 0	50: 0
17: 3.3	34: 3.3	

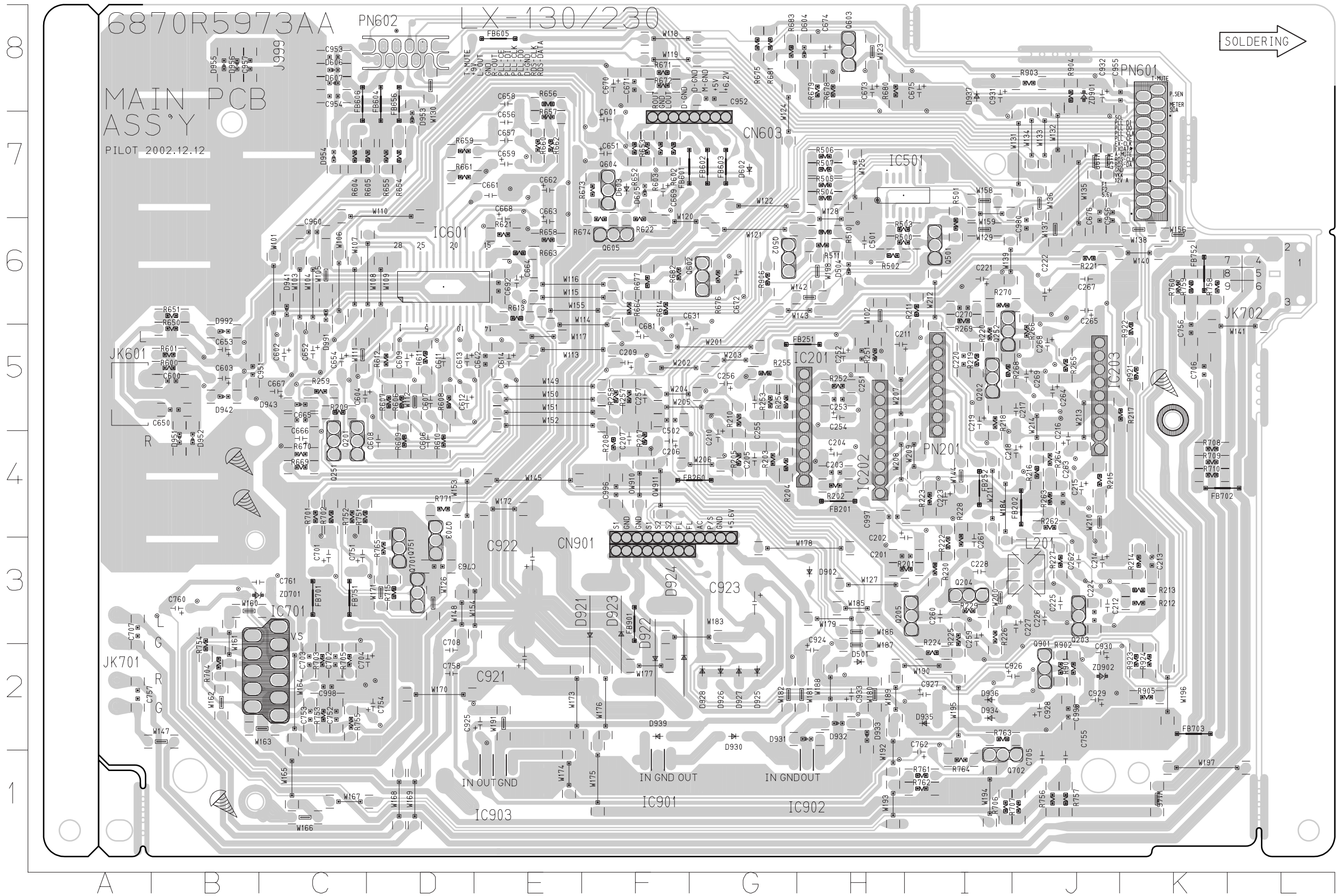
MP3 CDP MAIN
03.06.18 SI4174 / PR2330AA
LX-M230/M330

WIRING DIAGRAM

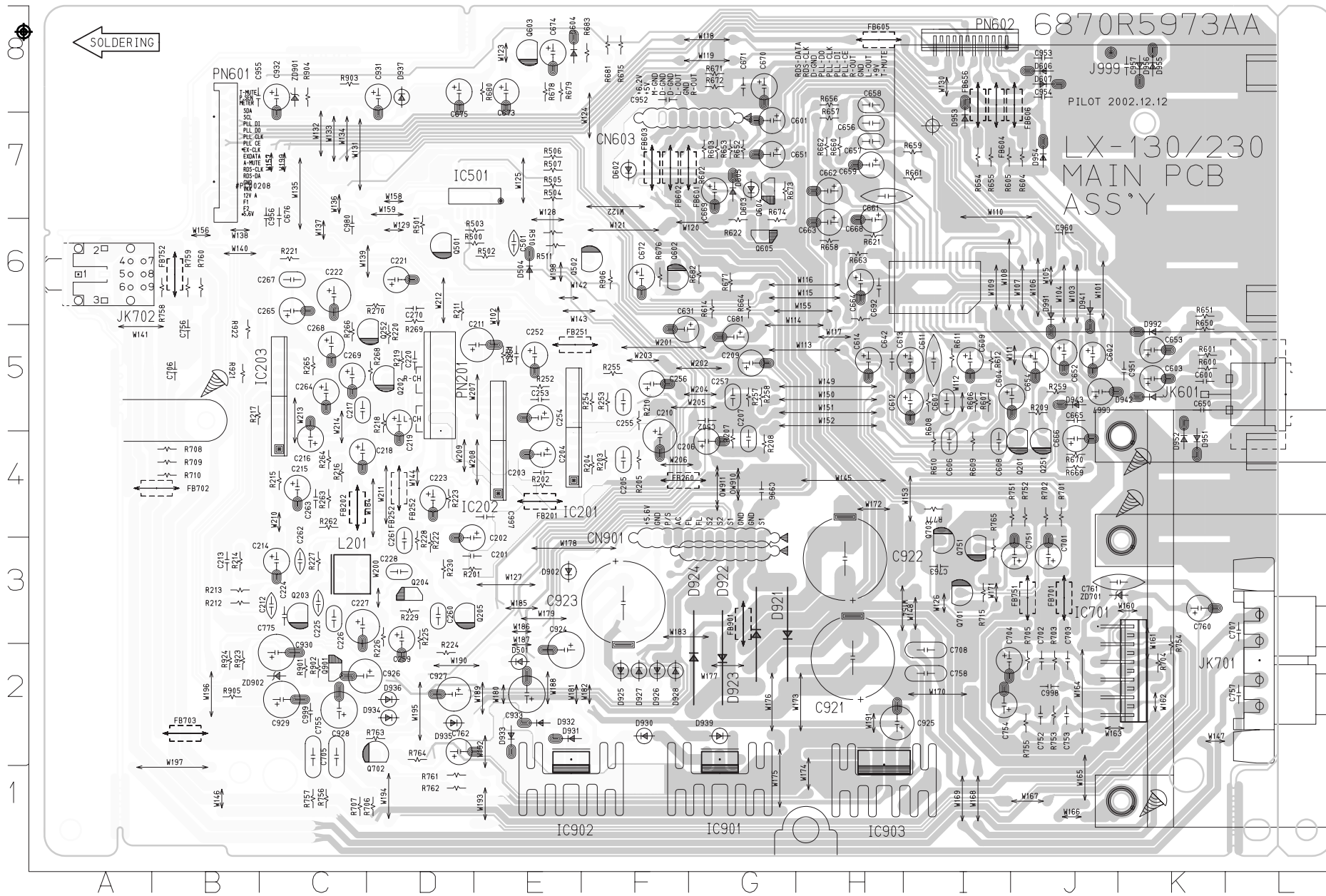


PRINTED CIRCUIT DIAGRAMS

• MAIN/TUNER P.C. BOARD(SOLDER SIDE)



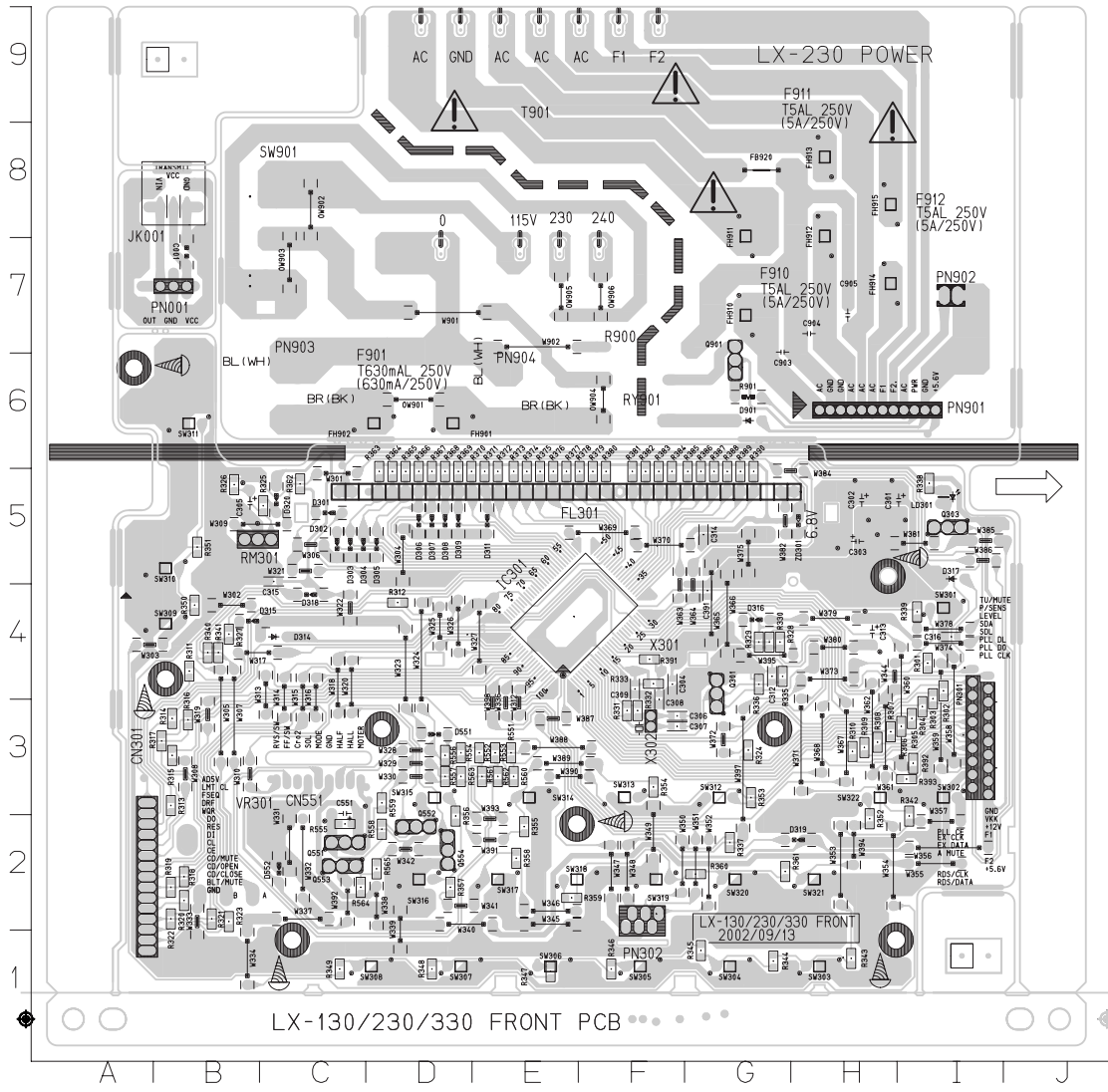
• MAIN/TUNER P.C. BOARD(COMPONENT SIDE)



C201	D3	C607	15	C761	K3	D935	D2	Q204	D3	R263	C4	R673	G7
C202	D3	C608	14	C762	D1	D936	D2	Q205	D3	R264	C4	R674	G6
C203	E4	C609	15	C763	I3	D937	D8	Q251	J4	R265	C5	R675	F8
C204	E4	C611	15	C921	H2	D939	G2	Q252	D5	R266	C5	R676	F6
C205	F4	C612	15	C922	H3	D941	J6	Q501	D6	R268	D5	R677	G6
C206	G4	C613	15	C923	F3	D942	K5	Q502	F6	R269	D6	R678	E8
C207	G4	C614	H5	C924	E2	D943	J5	Q602	F6	R270	D6	R679	E8
C209	G5	C631	F5	C925	H2	D951	K4	Q603	E8	R500	E6	R680	E8
C210	F4	C642	H5	C926	C2	D952	K4	Q604	G7	R501	D6	R681	F8
C211	E5	C650	K5	C927	D2	D953	I7	Q605	G6	R502	E6	R682	G6
C212	C3	C651	G7	C928	C2	D954	J7	Q701	I3	R503	E6	R683	F8
C213	B3	C652	J5	C929	C2	D955	K8	Q702	D1	R504	E7	R701	J4
C214	C3	C653	K5	C930	C2	D956	K8	Q703	I3	R505	E7	R702	J4
C215	C4	C654	J5	C931	D8	D991	J6	Q751	I3	R506	E7	R703	J2
C216	C4	C656	H7	C932	C8	D992	K5	Q901	C2	R507	E7	R704	K2
C217	C5	C657	H7	C933	E2	FB201	E4	R201	D3	R510	E6	R705	J2
C218	C4	C658	H8	C951	K5	FB202	C4	R202	E4	R511	E6	R706	D1
C219	D5	C659	H7	C952	F8	FB251	E5	R203	F4	R600	K5	R707	C1
C220	D5	C661	H7	C953	J8	FB252	D4	R204	F4	R601	K5	R708	B4
C221	D6	C662	H7	C954	J8	FB260	F4	R205	F4	R602	G7	R709	B4
C222	C6	C663	H6	C955	B8	FB601	F7	R207	G4	R603	G7	R710	B4
C223	D4	C664	H6	C956	C7	FB602	F7	R208	G4	R604	J7	R715	I3
C224	C3	C665	J5	C957	K8	FB603	F7	R209	J5	R605	I7	R751	J4
C225	C3	C666	J4	C960	J6	FB604	I8	R210	F5	R606	I5	R752	J4
C226	C3	C667	J5	C980	C6	FB605	H8	R211	D6	R607	I5	R753	J2
C227	C3	C668	H6	C996	G4	FB606	J8	R212	B3	R608	I5	R754	K2
C228	D3	C669	G7	C997	E4	FB656	I8	R213	B3	R609	I4	R755	J2
C251	E5	C670	G8	C998	J2	FB701	J3	R214	B3	R610	I4	R756	C1
C252	E5	C671	G8	C999	C2	FB702	B4	R215	C4	R611	I5	R757	C1
C253	E5	C672	F6	CN603	F7	FB703	B2	R216	C4	R612	I5	R758	B6
C254	E5	C673	E8	CN901	G3	FB751	J3	R217	B5	R613	H6	R759	B6
C255	F5	C674	E8	D501	E2	FB752	B6	R218	D5	R614	G6	R760	B6
C256	F5	C675	D8	D504	E6	FB901	G3	R219	D5	R621	H6	R761	D1
C257	G5	C676	C7	D602	F7	IC201	E4	R220	D5	R622	G6	R762	D1
C259	D3	C681	G5	D603	G7	IC202	E4	R221	C6	R650	K5	R763	D2
C260	D3	C692	H6	D604	E8	IC203	C4	R222	D3	R651	K6	R764	D1
C261	D3	C701	J3	D605	G7	IC701	J3	R223	D4	R652	G7	R765	I3
C262	C3	C702	J2	D606	J8	IC901	G1	R224	D2	R653	G7	R771	I4
C263	C4	C703	J2	D607	J8	IC902	E1	R225	D3	R654	I7	R901	C2
C264	C5	C704	I2	D902	E3	IC903	H1	R226	D3	R655	I7	R902	C2
C265	C6	C705	C1	D921	G3	J999	J8	R227	C3	R656	H8	R903	C8
C267	C6	C706	B5	D922	G2	JK601	L5	R228	D3	R657	H7	R904	C8
C268	C5	C707	L3	D923	G3	JK701	L2	R229	D3	R658	H6	R905	B2
C269	C5	C708	I2	D924	G2	JK702	A6	R230	D3	R659	I7	R906	F6
C270	D6	C751	J3	D925	F2	L201	C3	R251	E5	R660	H7	R921	B5
C501	E6	C752	J2	D926	F2	OW910	G4	R252	E5	R661	I7	R922	B5
C502	G5	C753	J2	D927	F2	OW911	G4	R253	F5	R662	H7	R923	B2
C600	K5	C754	I2	D928	F2	PN201	D4	R254	F5	R663	H6	R924	B2
C601	G7	C755	C1	D930	F2	PN601	B7	R255	F5	R664	G6	ZD701	K3
C602	J5	C756	B5	D931	E2	PN602	I8	R257	G5	R669	J4	ZD901	C8
C603	K5	C757	L2	D932	E2	Q201	J4	R258	G5	R670	J4	ZD902	C2
C604	J5	C758	I2	D933	E2	Q202	D5	R259	J5	R671	G8		
C606	I4	C760	K3	D934	D2	Q203	C3	R262	C4	R672	G8		

• FRONT/POWER P.C. BOARD (COMPONENT SIDE)

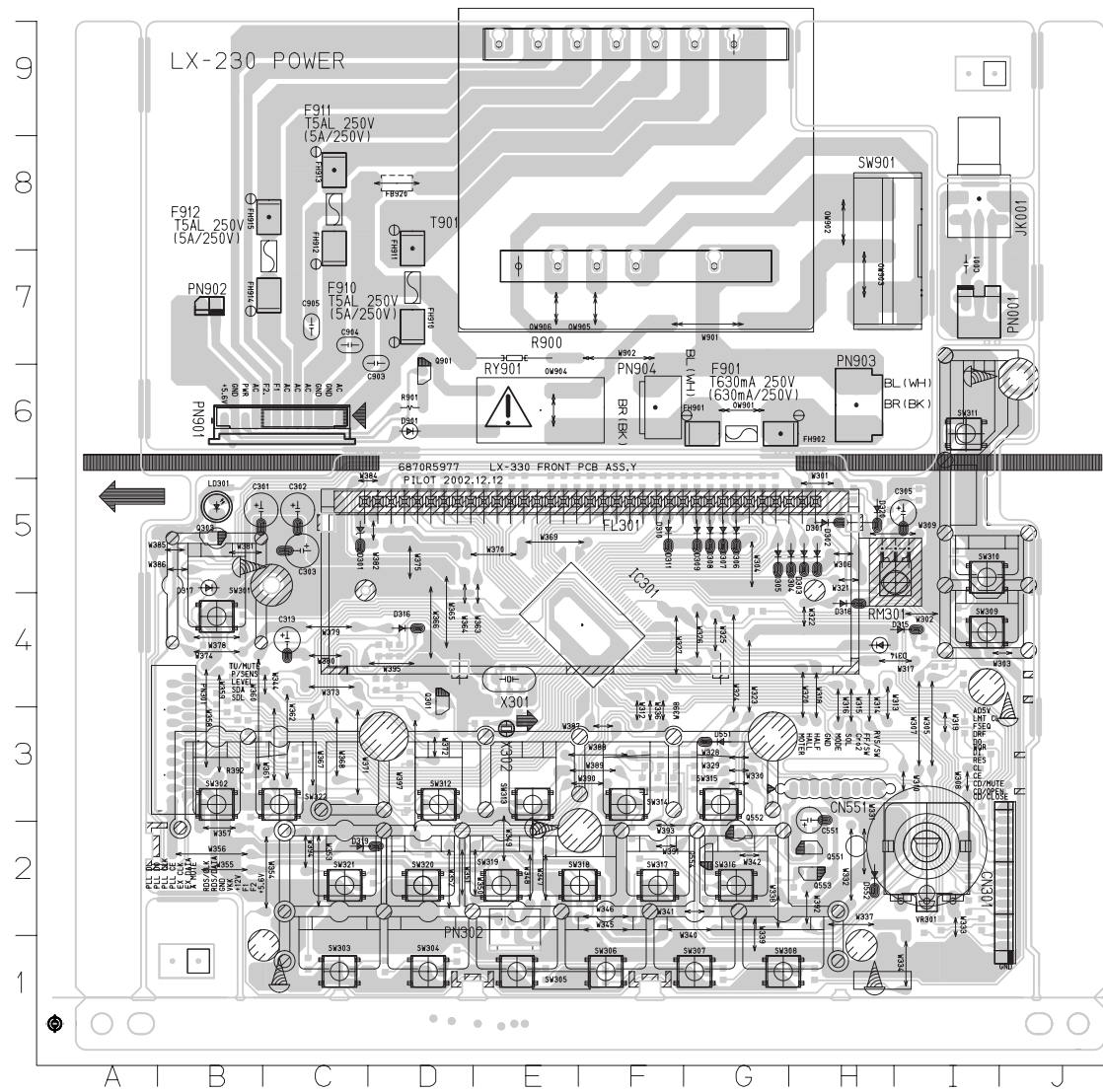
NOTE: Warning
 ⚠ Parts that are shaded are critical With respect to risk of fire or electrical shock.



C304	F4	R350	B4
C306	F3	R351	B5
C307	F3	R352	H2
C308	F3	R353	G3
C309	F4	R354	F3
C312	G4	R355	E2
C314	G5	R356	D2
C315	C5	R357	D2
C316	I4	R358	E2
C391	G4	R359	G2
IC301	E4	R360	G2
R301	I4	R361	C2
R302	I4	R362	C5
R303	I3	R363	D6
R304	I3	R364	D5
R305	I3	R365	D5
R306	I3	R366	D5
R307	H3	R367	D5
R308	H3	R368	D5
R309	H3	R369	D5
R310	H3	R370	D5
R311	B4	R371	E5
R312	D4	R372	E5
R313	B3	R373	E5
R314	B3	R374	E5
R315	B3	R375	E5
R316	B3	R376	E5
R317	B3	R377	E5
R318	B2	R378	F5
R319	B2	R379	F5
R320	B2	R380	F5
R321	B2	R381	F5
R322	B2	R382	F5
R323	B2	R383	F5
R324	G3	R384	G5
R325	C5	R385	G5
R326	B5	R386	G5
R327	B4	R387	G5
R328	G4	R388	G5
R329	G4	R389	G5
R330	G4	R390	G5
R331	F3	R391	F4
R332	F3	R392	I3
R333	F4	R393	I3
R335	G4	R551	E3
R336	G4	R552	E3
R337	G2	R553	D3
R338	I5	R554	D3
R339	I4	R555	D2
R340	B4	R556	D3
R341	B4	R557	D3
R342	I2	R558	D3
R343	H1	R559	D2
R344	G1	R560	E3
R345	G1	R561	E3
R346	F1	R562	D3
R347	E1	R563	D3
R348	D1	R564	C2
R349	C1	R565	D2

• FRONT/POWER P.C. BOARD (SOLDER SIDE)

NOTE: Warning
 ⚠ Parts that are shaded are critical With respect to risk of fire or electrical shock.

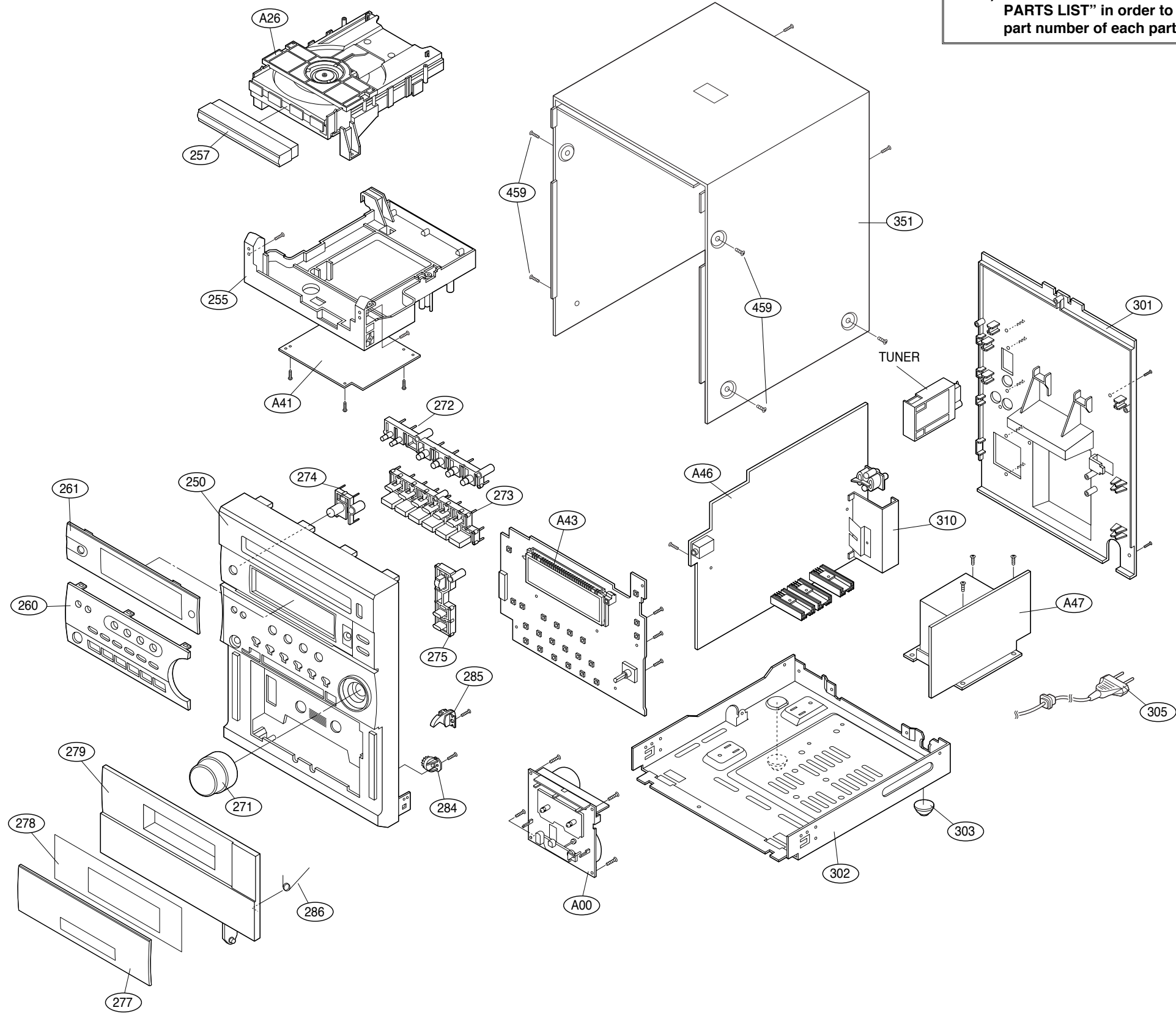


C001	I7	OW905	F7
C301	B5	OW906	E7
C302	C5	PN001	I7
C303	C5	PN301	B4
C305	I5	PN302	E2
C313	C4	PN901	B6
C551	H3	PN902	B7
C903	D7	PN903	H6
C904	C7	PN904	F6
C905	C7	Q301	D4
CN301	I1	Q303	B5
CN551	H3	Q551	H2
D301	H5	Q552	G2
D302	H5	Q553	H2
D303	H5	Q554	G2
D304	H5	Q901	D6
D305	G5	R900	E7
D306	G5	R901	D6
D307	G5	RM301	I5
D308	G5	RY901	E6
D309	G5	SW301	B4
D311	F5	SW302	B3
D314	H4	SW303	C1
D315	I4	SW304	D1
D316	D4	SW305	E1
D317	B5	SW306	F1
D318	H4	SW307	G1
D319	C2	SW308	G1
D320	H5	SW309	I4
D551	G3	SW310	I5
D552	H2	SW311	I6
D901	D6	SW312	D3
FB920	D8	SW313	E3
FH901	G6	SW314	F3
FH902	G6	SW315	G3
FH910	D7	SW316	G2
FH911	D8	SW317	F2
FH912	C8	SW318	F2
FH913	C8	SW319	E2
FH914	C7	SW320	D2
FH915	C8	SW321	C2
FL301	H5	SW322	C3
JK001	I8	SW901	H7
LD301	B5	T901	G7
OW901	G6	VR301	I2
OW902	H6	X301	E4
OW903	H7	X302	E3
OW904	E6	ZD301	C5

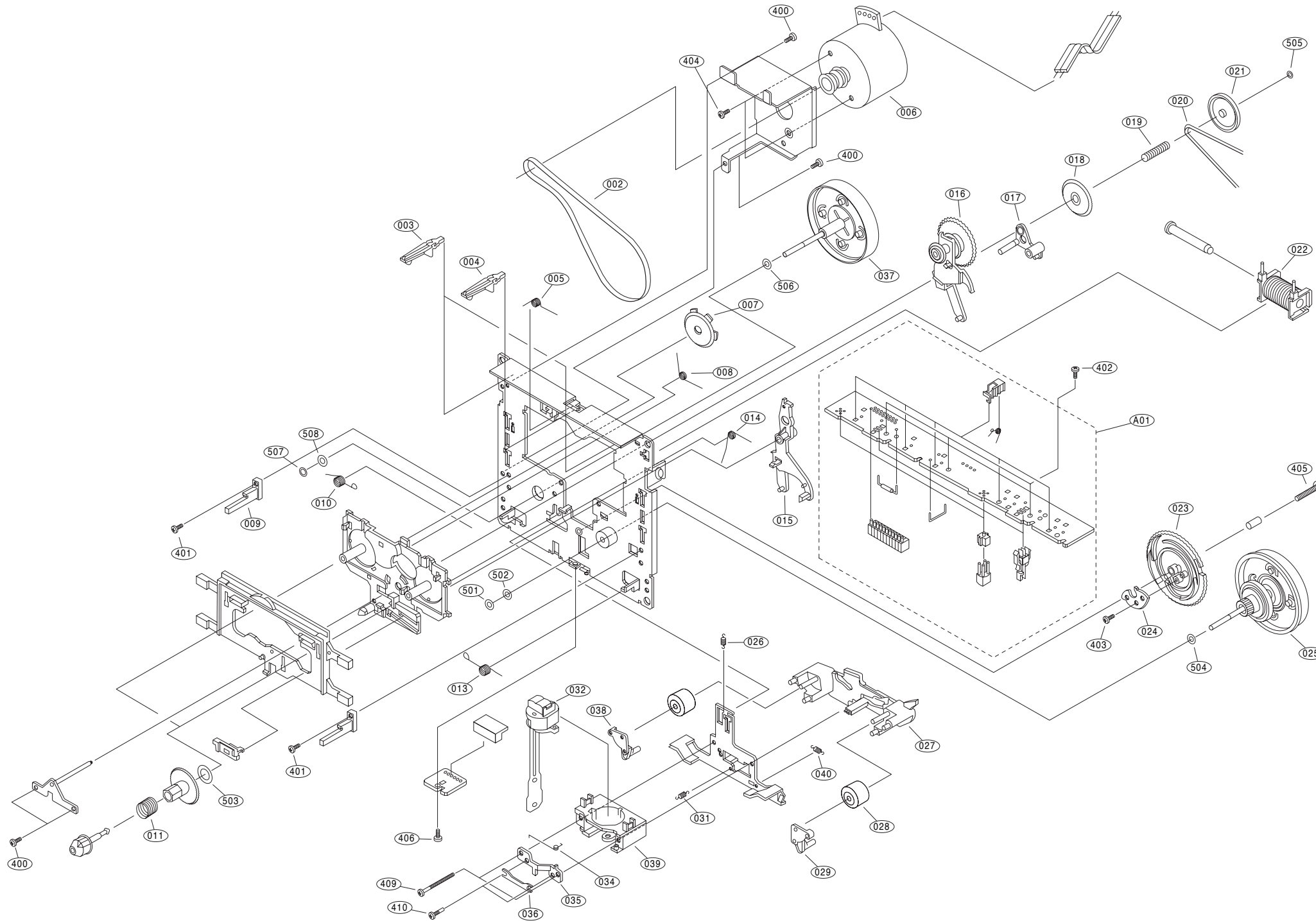
SECTION 3. EXPLODED VIEWS

• CABINET AND MAIN FRAME SECTION

NOTE) Refer to "SECTION 5 REPLACEMENT PARTS LIST" in order to look for the part number of each part.

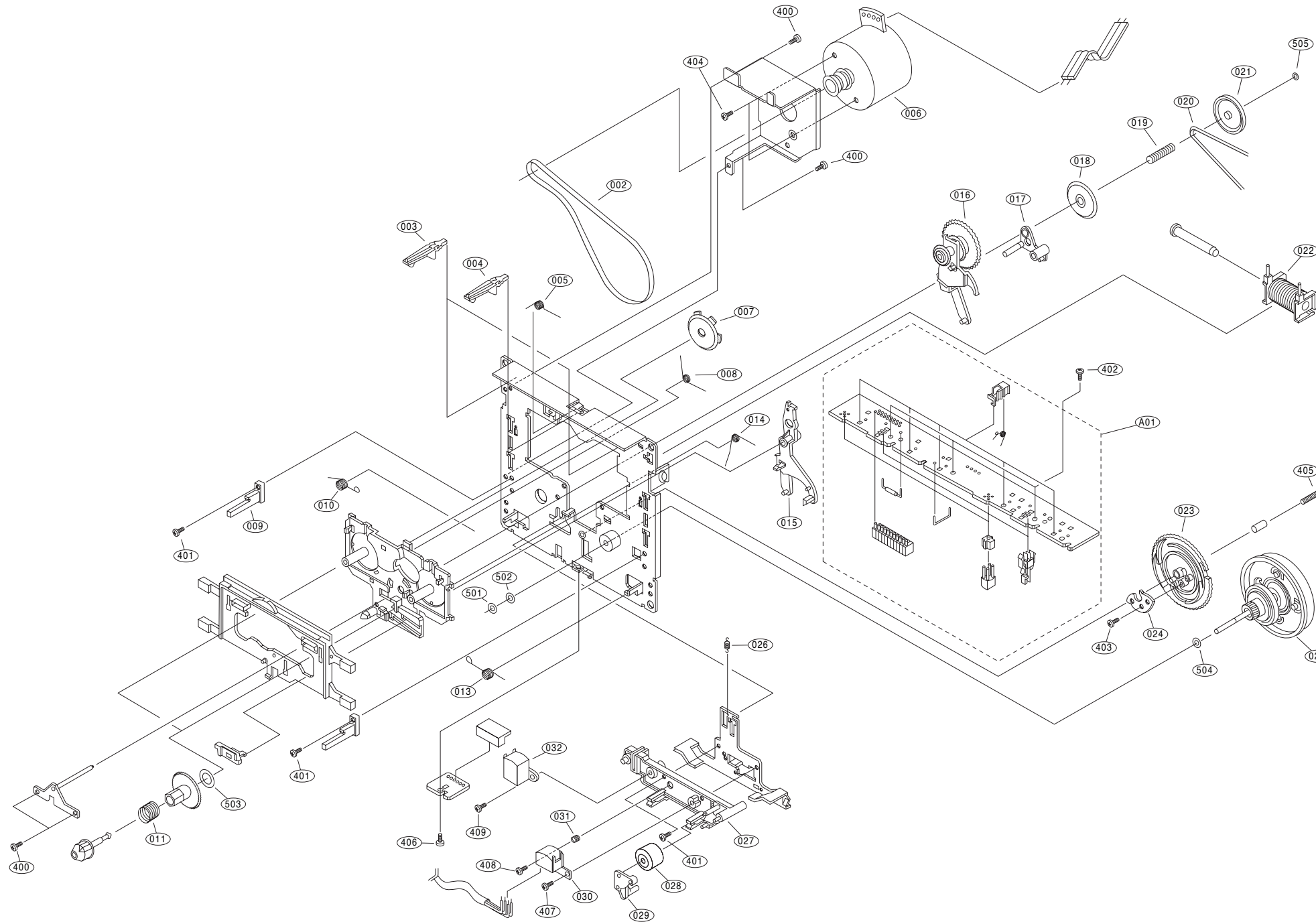


• TAPE DECK MECHANISM: AUTO REVERSE DECK



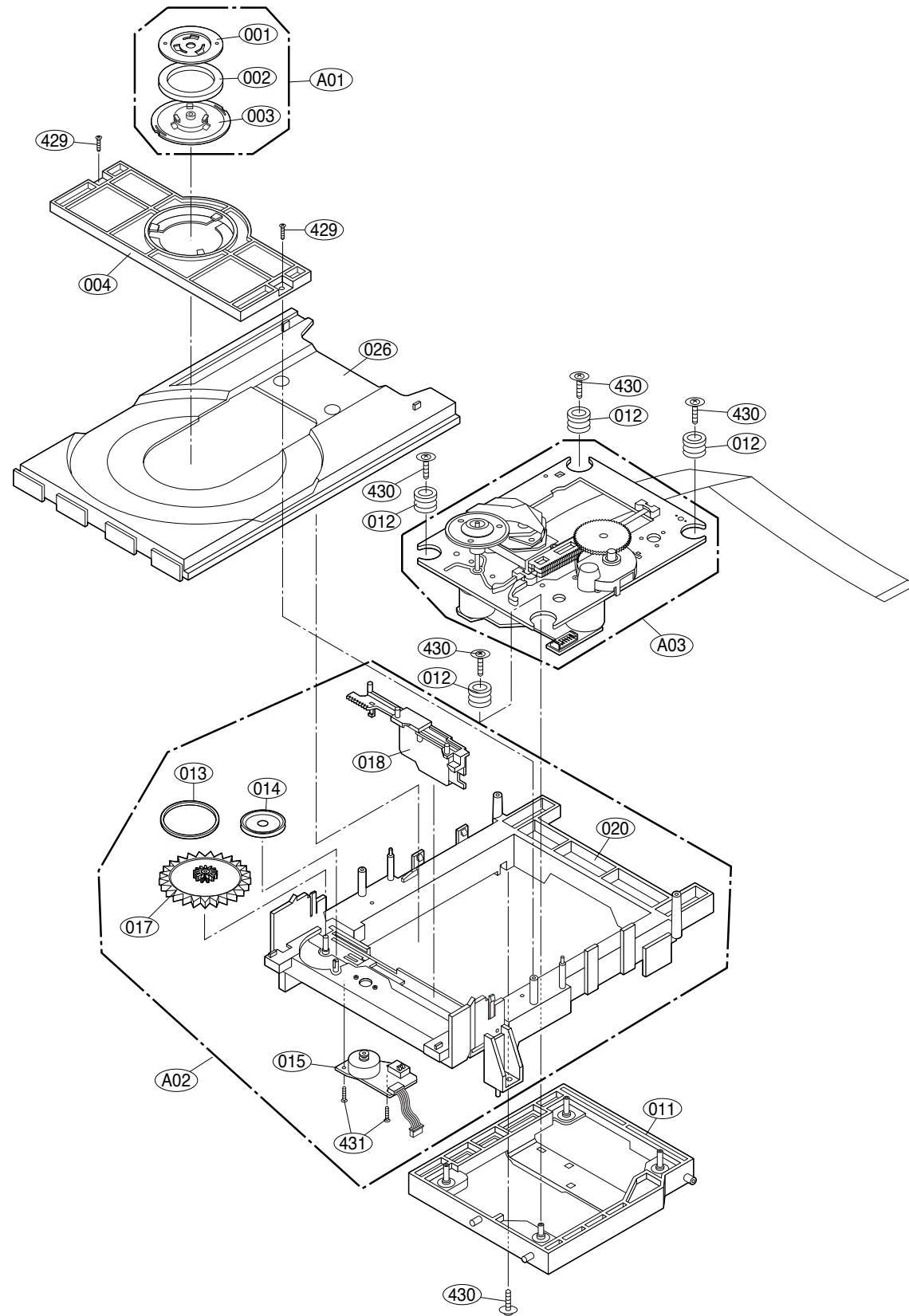
LOCA. NO	PART NO.	SPECIFICATION
A00	6730R-F001B	CRL4428 PIGEON L-SINGLE A/REVERSE
A01	6768R-UP01B	50-093-4329 PIGEON UNIT CRL442
002	6768R-BP01K	02-084-4200 PIGEON BELT/FELT C
003	6768R-AP01D	50-239-4027 PIGEON ARM CWL44
004	6768R-AP01E	50-239-4026 PIGEON ARM CWL44
005	6768R-SP01E	01-082-4654 PIGEON SPRING CWL4
006	6768R-QP01D	50-093-4328 PIGEON MOTOR(ASSY)
007	6768R-GP01A	50-093-4063 PIGEON GEAR CWL44
008	6768R-SP01F	01-082-4598 PIGEON SPRING CWL4
009	6768R-MP01C	50-219-4014 PIGEON MOLD CWL44
010	6768R-SP01C	01-082-4652 PIGEON SPRING CWL4
011	6768R-SP01A	01-081-4601 PIGEON SPRING CWL4
013	6768R-SP01B	01-082-4651 PIGEON SPRING CWL4
014	6768R-SP01G	01-082-4597 PIGEON SPRING CWL4
015	6768R-AP01A	50-268-3016 PIGEON ARM CWL44
016	6768R-GP01H	50-093-4503 PIGEON GEAR CRL442
017	6768R-AP01C	50-239-4072 PIGEON ARM CWL44
018	6768R-GP01J	50-222-4428 PIGEON GEAR CRL442
019	6768R-SP01P	01-081-4678 PIGEON SPRING CRL4
020	6768R-BP01C	02-083-4188 PIGEON BELT/FELT C
021	6768R-LP01C	50-223-4429 PIGEON PULLEY/FLYW
022	6768R-VP01A	50-093-4125 PIGEON SOLENOID CW
023	6768R-GP01G	50-21-4474 PIGEON GEAR CRL4428
024	6768R-AP01B	50-139-4292 PIGEON ARM CWL44
025	6768R-JP01H	50-093-3440 PIGEON PULLEY/FLYW
026	6768R-SP01D	01-080-4609 PIGEON SPRING CWL4
027	6768R-DP01A	50-259-3342 PIGEON LEVER CWL44
028	6768R-RP01A	22-027-41054 PIGEON ROLLER CWL
029	6768R-MP01A	50-219-4033 PIGEON MOLD CWL44
031	6768R-SP01L	01-080-4649 PIGEON SPRING CWL4
032	6768R-EP01A	50-093-4070 PIGEON HEAD ASSY C
034	6768R-SP01K	01-082-4650 PIGEON SPRING CWL4
035	6768R-PP01A	50-119-4046 PIGEON PRESS CWL44
036	6768R-PP01B	50-160-4108 PIGEON PRESS CWL44
037	6768R-JP01G	50-093-3439 PIGEON PULLEY/FLYW
038	6768R-MP01D	50-219-4034 PIGEON MOLD CWL44
039	6768R-MP01E	50-219-3024 PIGEON MOLD CWL44
040	6768R-SP01M	01-080-4607 PIGEON SPRING CWL4
400	6768R-CP01A	GSE10A2003 PIGEON SCREW CWL44
401	6768R-CP01B	GSE20A2005 PIGEON SCREW CWL44
402	6768R-CP01C	GSE10A2004 PIGEON SCREW CWL44
403	6768R-CP01D	GSL10A1704 PIGEON SCREW CWL44
404	6768R-CP01E	GSP10A2603 PIGEON SCREW CWL44
405	6768R-CP01F	GSP11A2012 PIGEON SCREW CWL44
406	6768R-CP01G	GSE20A2004 PIGEON SCREW CWL44
409	6768R-CP01L	GSD10A2018 PIGEON SCREW CWL44
410	6768R-CP01M	03-300-4056 PIGEON SCREW CWL44
501	6768R-WP01A	GWM19S035035 PIGEON WASHER CWL
502	6768R-WP01B	GWM17S050035S PIGEON WASHER CW
503	6768R-WP01C	GWM48X075010 PIGEON WASHER CWL
504	6768R-WP01D	GWP21X045020 PIGEON WASHER CWL
505	6768R-WP01E	GWP12X030040S PIGEON WASHER CW
506	6768R-WP01H	GWP23X040020 PIGEON WASHER CWL
507	6768R-WP01F	GWN21X040040 PIGEON WASHER CWL
508	6768R-WP01G	GWM19X055035S PIGEON WASHER CW
A01	6768R-UP01B	50-093-4329 PIGEON UNIT CRL442

• TAPE DECK MECHANISM: AUTO STOP DECK(OPTIONAL)



LOCA. NO	PART NO.	SPECIFICATION
A00	6730R-F001A	CFL4410 PIGEON L-SINGLE A/STOP
A01	6768R-UP01C	50-093-4527 PIGEON UNIT CFL441
002	6768R-BP01L	02-084-4201 PIGEON BELT/FELT C
003	6768R-AP01D	50-239-4027 PIGEON ARM CWL44
004	6768R-AP01E	50-239-4026 PIGEON ARM CWL44
005	6768R-SP01E	01-082-4654 PIGEON SPRING CWL4
006	6768R-QP01D	50-093-4328 PIGEON MOTOR(ASSY)
007	6768R-GP01A	50-093-4063 PIGEON GEAR CWL44
008	6768R-SP01F	01-082-4598 PIGEON SPRING CWL4
009	6768R-MP01C	50-219-4014 PIGEON MOLD CWL44
010	6768R-SP01C	01-082-4652 PIGEON SPRING CWL4
011	6768R-SP01A	01-081-4601 PIGEON SPRING CWL4
013	6768R-SP01B	01-082-4651 PIGEON SPRING CWL4
014	6768R-SP01G	01-082-4597 PIGEON SPRING CWL4
015	6768R-AP01A	50-268-3016 PIGEON ARM CWL44
016	6768R-GP01H	50-093-4503 PIGEON GEAR CRL442
017	6768R-AP01C	50-239-4072 PIGEON ARM CWL44
018	6768R-GP01J	50-222-4428 PIGEON GEAR CRL442
019	6768R-SP01P	01-081-4678 PIGEON SPRING CRL4
020	6768R-BP01C	02-083-4188 PIGEON BELT/FELT C
021	6768R-LP01C	50-223-4429 PIGEON PULLEY/FLYW
022	6768R-VP01A	50-093-4125 PIGEON SOLENOID CW
023	6768R-GP01G	50-21-4474 PIGEON GEAR CRL4428
024	6768R-AP01B	50-139-4292 PIGEON ARM CWL44
025	6768R-JP01H	50-093-3440 PIGEON PULLEY/FLYW
026	6768R-SP01D	01-080-4609 PIGEON SPRING CWL4
027	6768R-MP01B	50-093-3036 PIGEON MOLD CWL44
028	6768R-RP01A	22-027-41054 PIGEON ROLLER CWL
029	6768R-MP01A	50-219-4033 PIGEON MOLD CWL44
030	6768R-HP01A	TC881CB067B PIGEON HEAD CWL44
031	6768R-SP01J	01-081-4605 PIGEON SPRING CWL44
032	6768R-HP01B	TC231F PIGEON HEAD CWL44
400	6768R-CP01A	GSE10A2003 PIGEON SCREW CWL44
401	6768R-CP01B	GSE20A2005 PIGEON SCREW CWL44
402	6768R-CP01C	GSE10A2004 PIGEON SCREW CWL44
403	6768R-CP01D	GSL10A1704 PIGEON SCREW CWL44
404	6768R-CP01E	GSP10A2603 PIGEON SCREW CWL44
405	6768R-CP01F	GSP11A2012 PIGEON SCREW CWL44
406	6768R-CP01G	GSE20A2004 PIGEON SCREW CWL44
407	6768R-CP01H	GSL20A2005 PIGEON SCREW CWL44
408	6768R-CP01J	03-300-4127 PIGEON SCREW CWL44
409	6768R-CP01K	GSL20A2008 PIGEON SCREW CWL44
501	6768R-WP01A	GWM19S035035 PIGEON WASHER CWL
502	6768R-WP01B	GWM17S050035S PIGEON WASHER CW
503	6768R-WP01C	GWM48X075010 PIGEON WASHER CWL
504	6768R-WP01D	GWP21X045020 PIGEON WASHER CWL
505	6768R-WP01E	GWP12X030040S PIGEON WASHER CW

• CD MECHANISM



LOCA.NO.	PART NO	DESCRIPTION	SPECIFICATION
A00	6721RJ0323A	DECK ASSEMBLY,AUDIO	CDP(CDM-300) CKD-HZ
A01	4861RH0004A	CLAMP ASSEMBLY	DISC (CDM-300)
A02	4405RHD009A	MECHANISM ASSEMBLY	MAIN LOADING CDP (CDM-300)
A03	6717RCA001A	PICK UP ASSY	KSM-213VSCM SONY FRONT LOADING
001	3300R-0547B	PLATE	CLAMP (CDM-300)
002	524-012AAAA	COVER	CLAMP MAGNET (030X018X5T)
003	4860R-0016A	CLAMP	DISC (CDM-300)
004	4930R-0171A	HOLDER	CLAMP
011	3040R-0073A	BASE	P/U (CDM-300)
012	5040R-0073A	RUBBER	DAMPER CDM-300(BK)
013	4400R-0006A	BELT	LOADING
014	4470R-0055A	GEAR	PULLEY
015	6871RC2016A	PWB(PCB) ASSEMBLY,CD	LOADING (CDM-300)
017	4470R-0056A	GEAR	LOADING
018	4974R-0023A	GUIDE	UP/DOWN
020	3040R-0072A	BASE	MAIN (CDM-300)
026	3390R-0005A	TRAY	DISC
429	1SZZR-0012A	SCREW,	B-TITE
430	6756SBX001A	CD MECHANISM PARTS	SCREW 2.6X10X10XFZMY CDM-H813
431	1SZZH-1007B	SCREW,DRAWING	+ D2.0 6MM SWRCH16A/ZNBK 4MM 1