

CONTENTS

SECTION 1. GENERAL

• SERVICING PRECAUTIONS	1-2
• ESD PRECAUTIONS	1-4
• SPECIFICATIONS	1-5

SECTION 2. ELECTRICAL

• ADJUSTMENTS	2-1
• TROUBLESHOOTING	2-3
• WAVEFORMS OF MAJOR CHECK POINT	2-20
• BLOCK DIAGRAM	2-21
• SCHEMATIC DIAGRAMS	2-23
• PRINTED CIRCUIT DIAGRAMS	2-33
• INTERNAL BLOCK DIAGRAM OF IC's	2-42
• REPAIRS REGARDING CD MECHANISM	2-54

SECTION 3. EXPLODED VIEWS

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

SECTION 4. SPEAKER..... 4-1

SECTION 5. REPLACEMENT PARTS LIST..... 5-1

SECTION 1. GENERAL

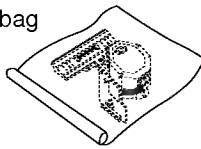
SERVICING PRECAUTIONS

NOTES REGARDING HANDLING OF THE PICK-UP

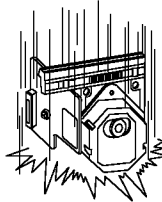
1. Notes for transport and storage

- 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

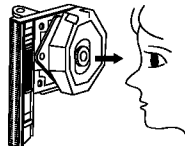


Drop impact



2. Repair notes

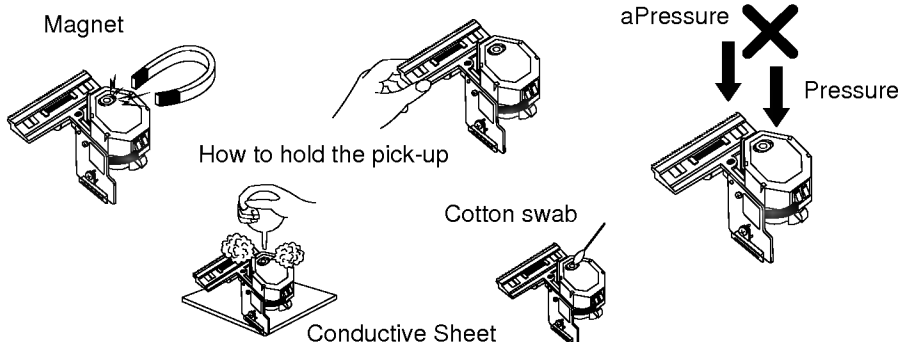
- 1) The pick-up incorporates a strong magnet, and so should never be brought close to magnetic materials.
- 2) The pick-up should always be handled correctly and carefully, taking care to avoid external pressure and impact. If it is subjected to strong pressure or impact, the result may be an operational 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.

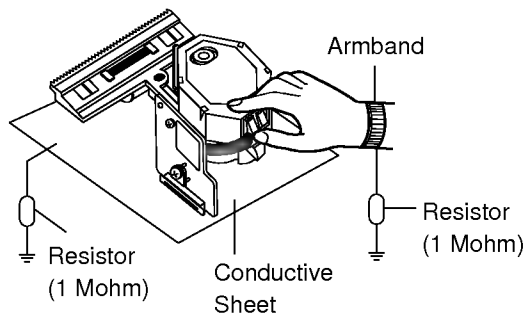
NOTES REGARDING COMPACT DISC PLAYER REPAIRS

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.



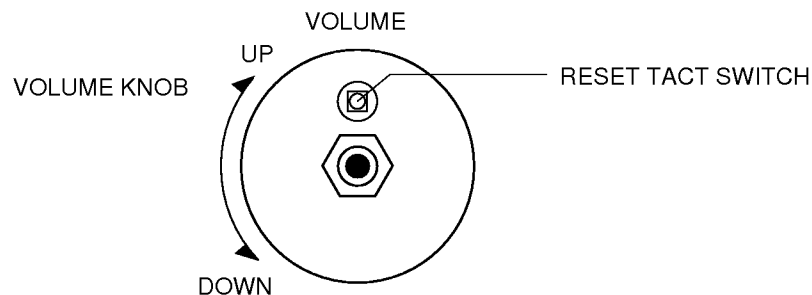
CLEARING MALFUNCTION

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 TACT SWITCH 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 TACT SWITCH, pull the volume rotary knob and release it.
2. If you wish to operate the RESET TACT SWITCH, 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).

SECTION 2. ELECTRICAL 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 modificate 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
A Deck Playback	MTT-114	Speaker Out	DECK Screw Azimuth Screw	Maximum
B Deck Playback	MTT-114	Speaker Out	Azimuth Screw	Maximum

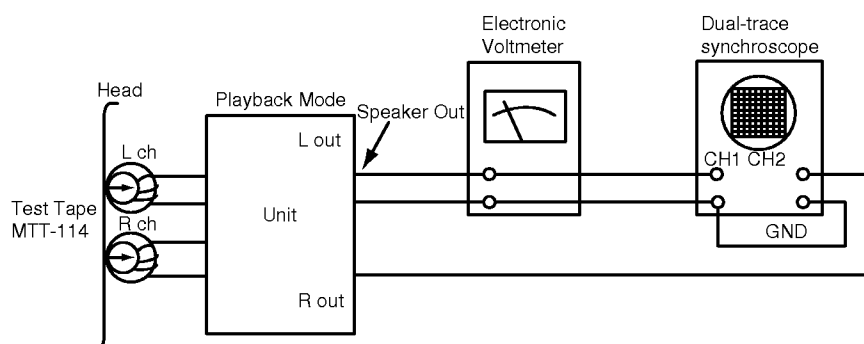


Figure 1. Azimuth Adjustment Connection Diagram

2. MOTOR SPEED ADJUSTMENT

Deck Mode	Test Tape	Test Point	Adjustment	Adjust for	Remark
Normal Speed	MTT-111	Speaker Out	VR201	3kHz $\pm$ 1%	A Deck
HI-Speed	MTT-111	Speaker Out	more than 5.4kHz		HI-Speed Dubbing Mode

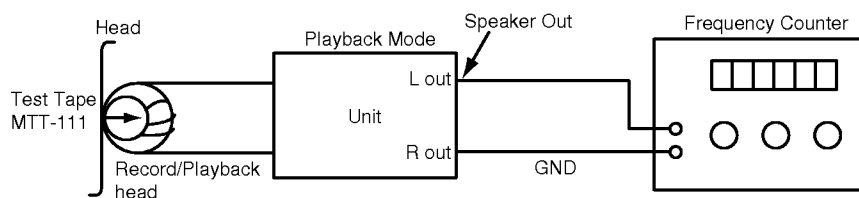


Figure 2. Motor Speed Adjustment Connection Diagram

3. RECORD BIAS ADJUSTMENT

Deck Mode	Test Tape	Test Point	Adjustment	Adjust for
Rec/Pause	MTT-5511	ERASE HEAD WIRE(PN202)	L203	60kHz±5kHz (Auto stop) 85kHz±5kHz(Auto Reverse)

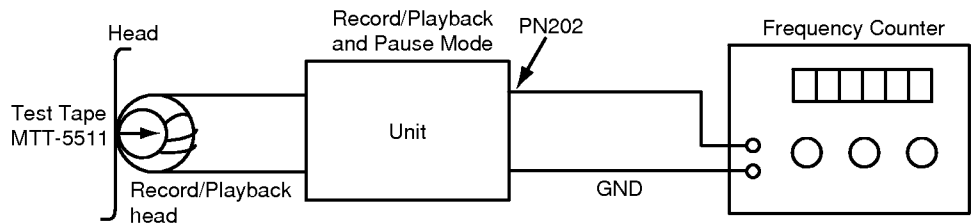


Figure 3. Record Bias Adjustment Connection Diagram

4. TUNER ADJUSTMENT

(FM)

Item	Test Point	Adjustment	Adjust for
DC Voltage	Checker PIN TP101, 102	L106	0V±50mV

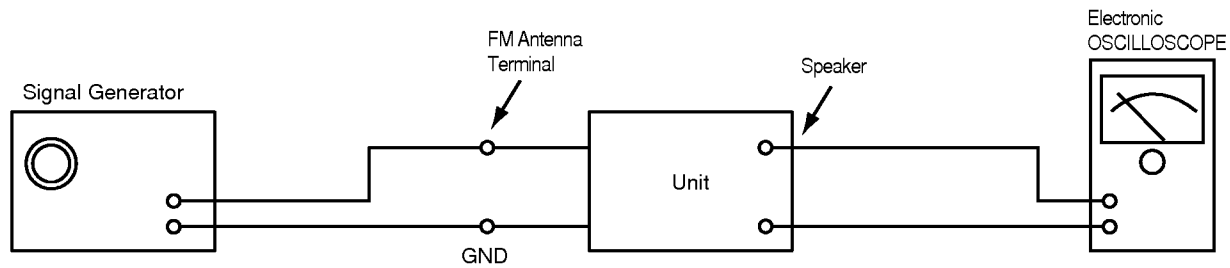


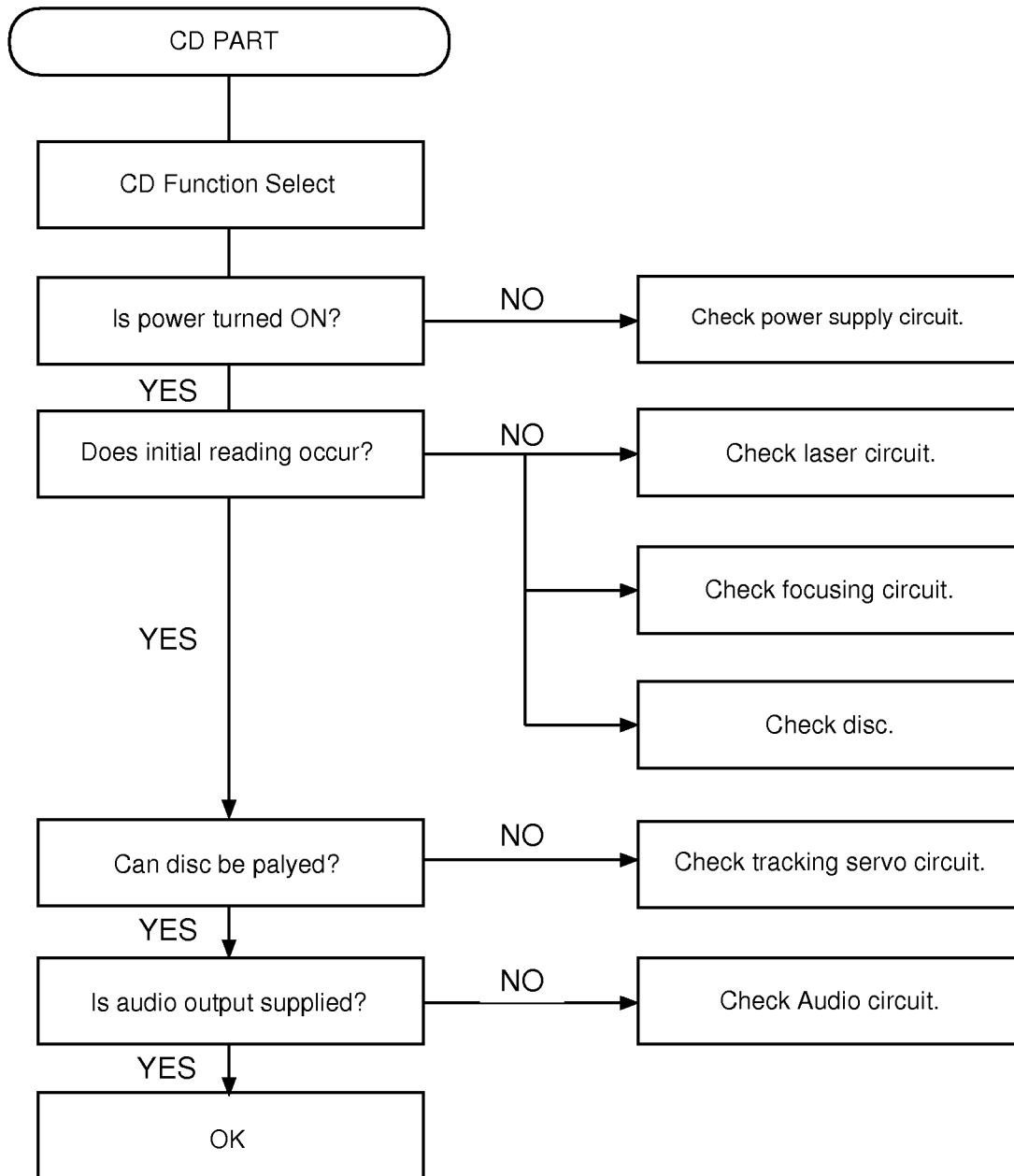
Figure 4. Tuner(S curve) Adjustment Connection Diagram

(AM)

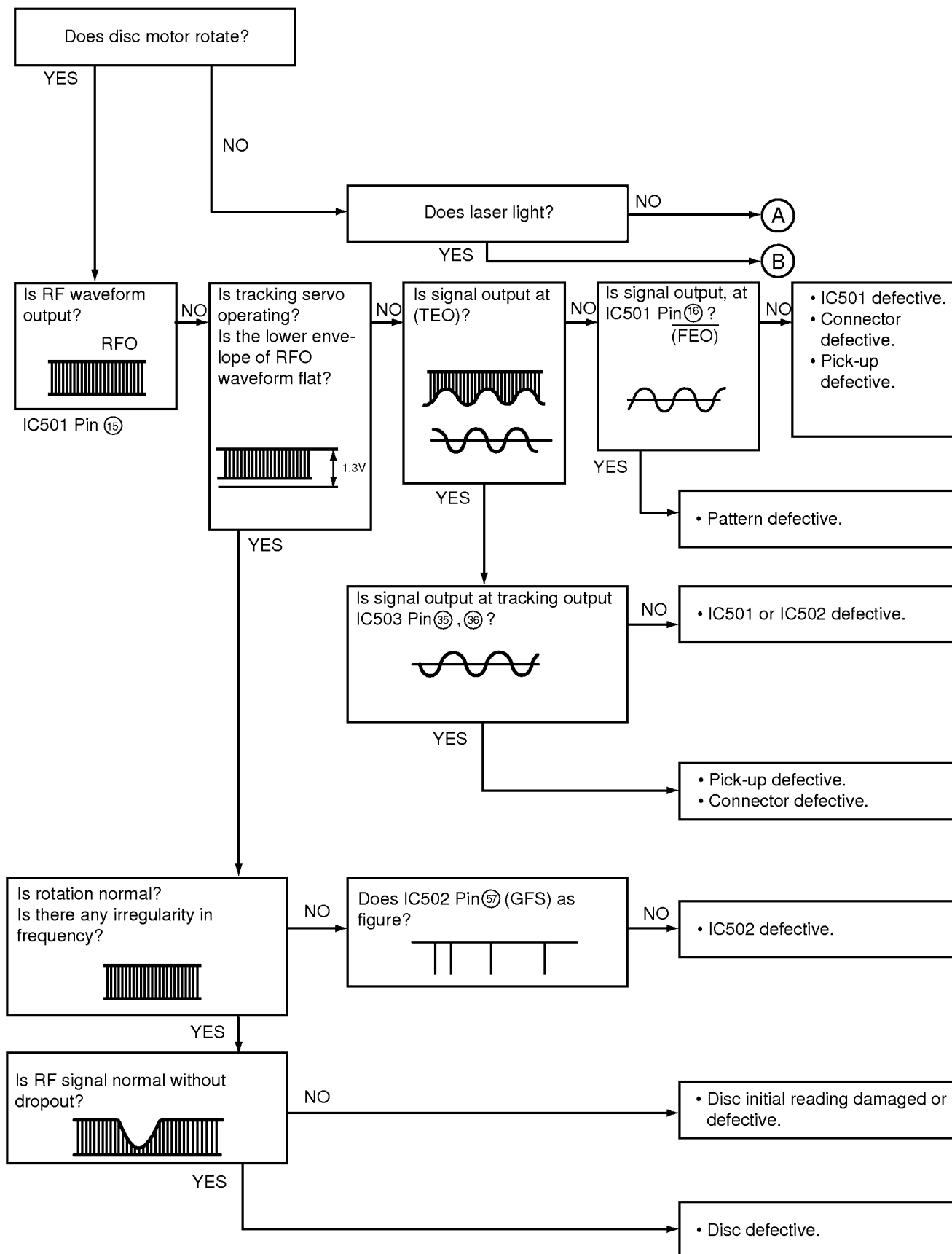
Item	Test Point	Adjustment	Adjust for
AM IF	SPEAKER OUT	L110	OUTPUT MAXZMUM

TROUBLESHOOTING

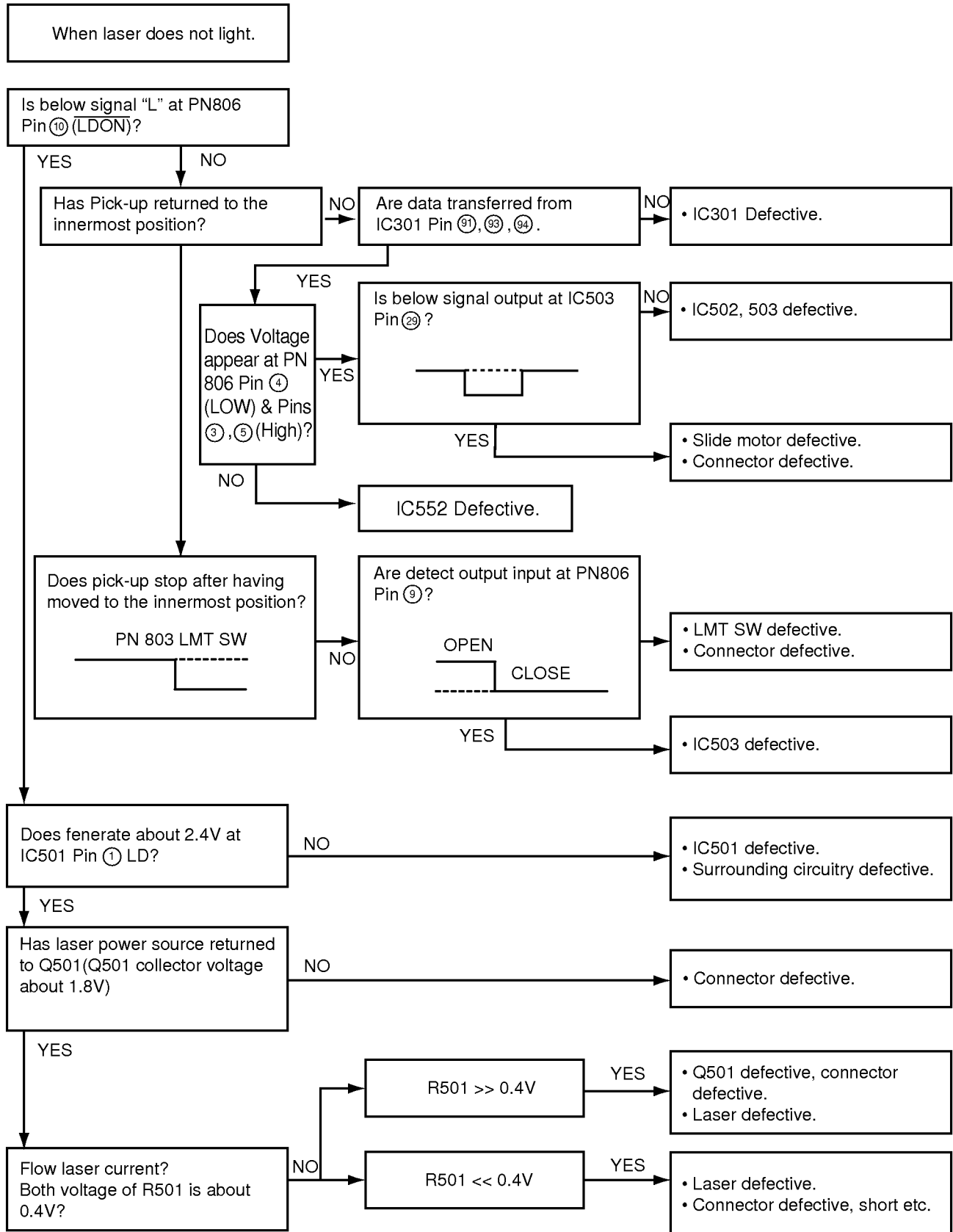
■ CD SECTION



If initial reading is not carried out (with disc)

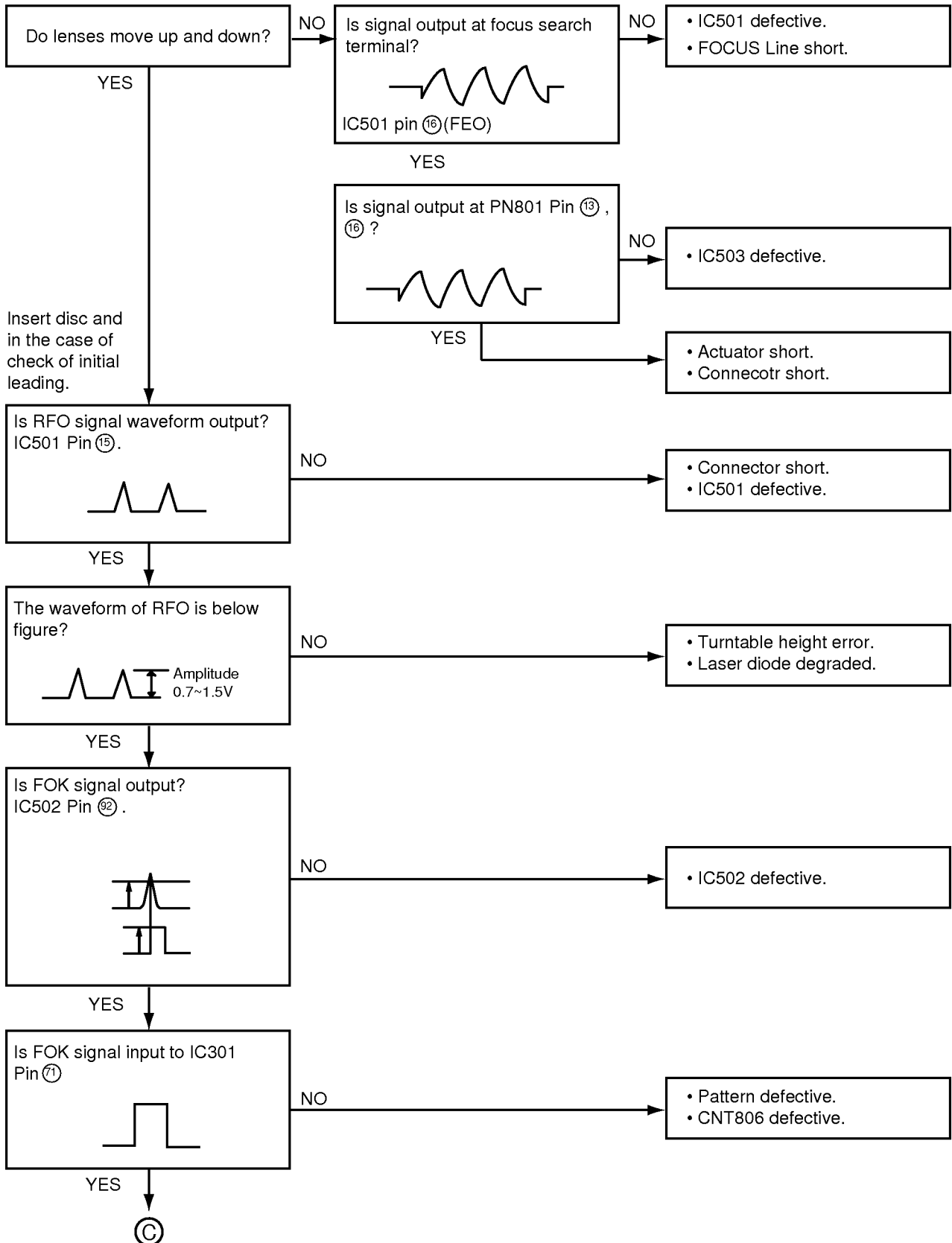


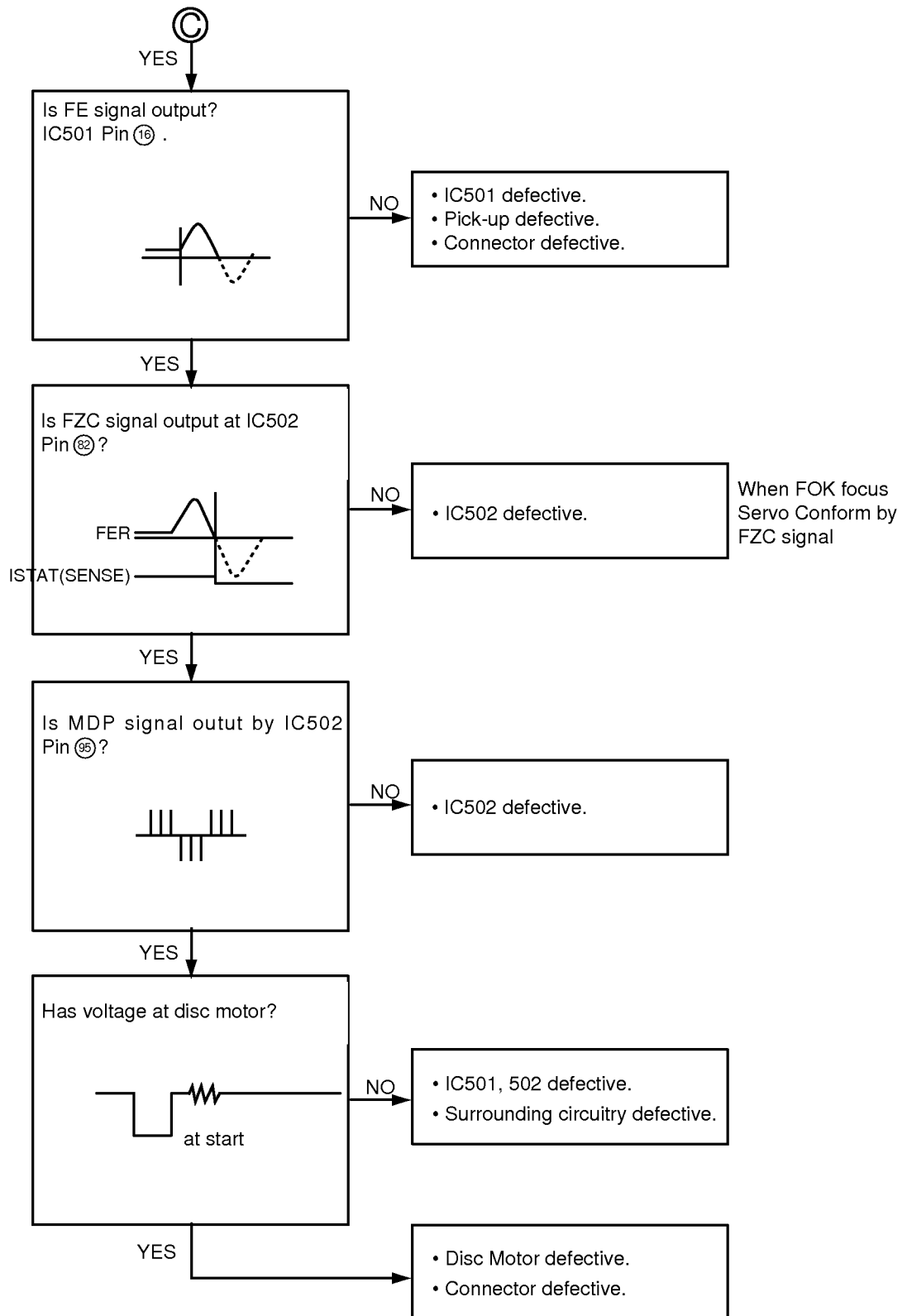
Ⓐ



Ⓑ

When laser lights.





MPEG PART TROUBLESHOOTING

■ MPEG PART

1. Is power supplied to MPEG PART IC (2.8V, 5V)

- 1) 5V : IC801, IC802 pin 81, IC803, IC804
- 2) 2.8V : IC802 pins 1, 31, 51

2. NO VIDEO

- 1) check the 27 MHz (X801)
- 2) check the MPEG RESET
 - IC 801 pin 13, 24, IC802 pin 29
- 3) check the communication line [FRONT MICOM (IC301) ↔ MPEG (IC802)]
 - DATA, ACK, STROBE (IC802 pin 45, 46, 47)
- 4) check the CLOCK & DATA [DSP(IC502) ↔ MPEG (IC802)]
 - LRCK, BCK, DATA (IC802 pin 96, 97, 98)
- 5) check the DATA communication
 - check the DATA & CLOCK LINE (IC801, 802, 803, 804)
- 6) check the VIDEO signal of the IC801 pin 64
 - check the normal voltage (IC 801 pin 52, 54, 55, 65)
- 7) check the COLOR & OSD
 - check the DATA (IC801 pin 79, 80, 82, 84)

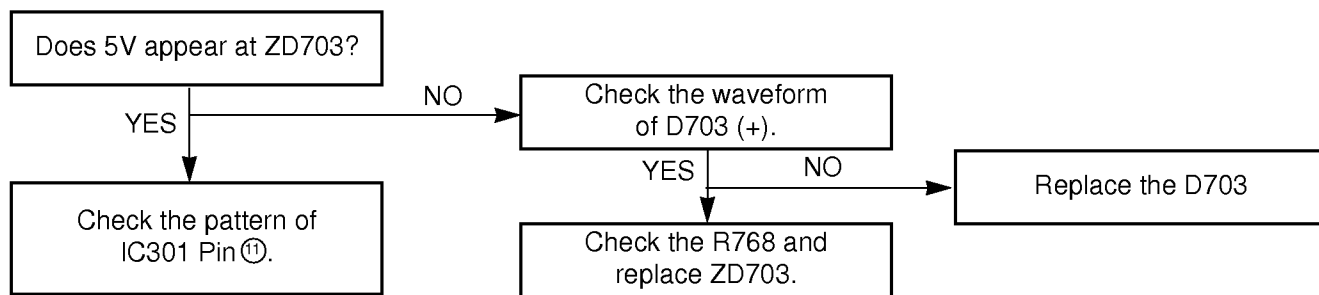
3. NO AUDIO

- 1) check the 16.9344MHz (X531)
- 2) check the CLOCK & DATA of DSP (IC 502)
 - LRCK, BCK, DATA (IC502 pin 47, 48, 49)
- 3) check the AUDIO signal (IC801 pin 45, 46, 47, 48)
- 4) check the Vcc input of IC806 (OPAMP)
- 5) check the power on of MUTE part
 - check the Q801, 802

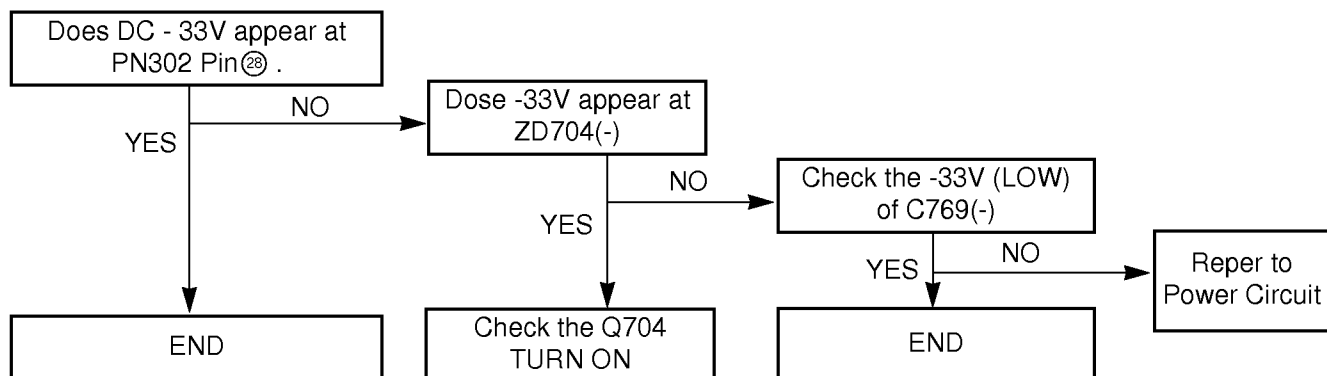
4. miscellaneous

- 1) check the communication line between IC802 pin 48, 52, 54 and FRONT MICOM.

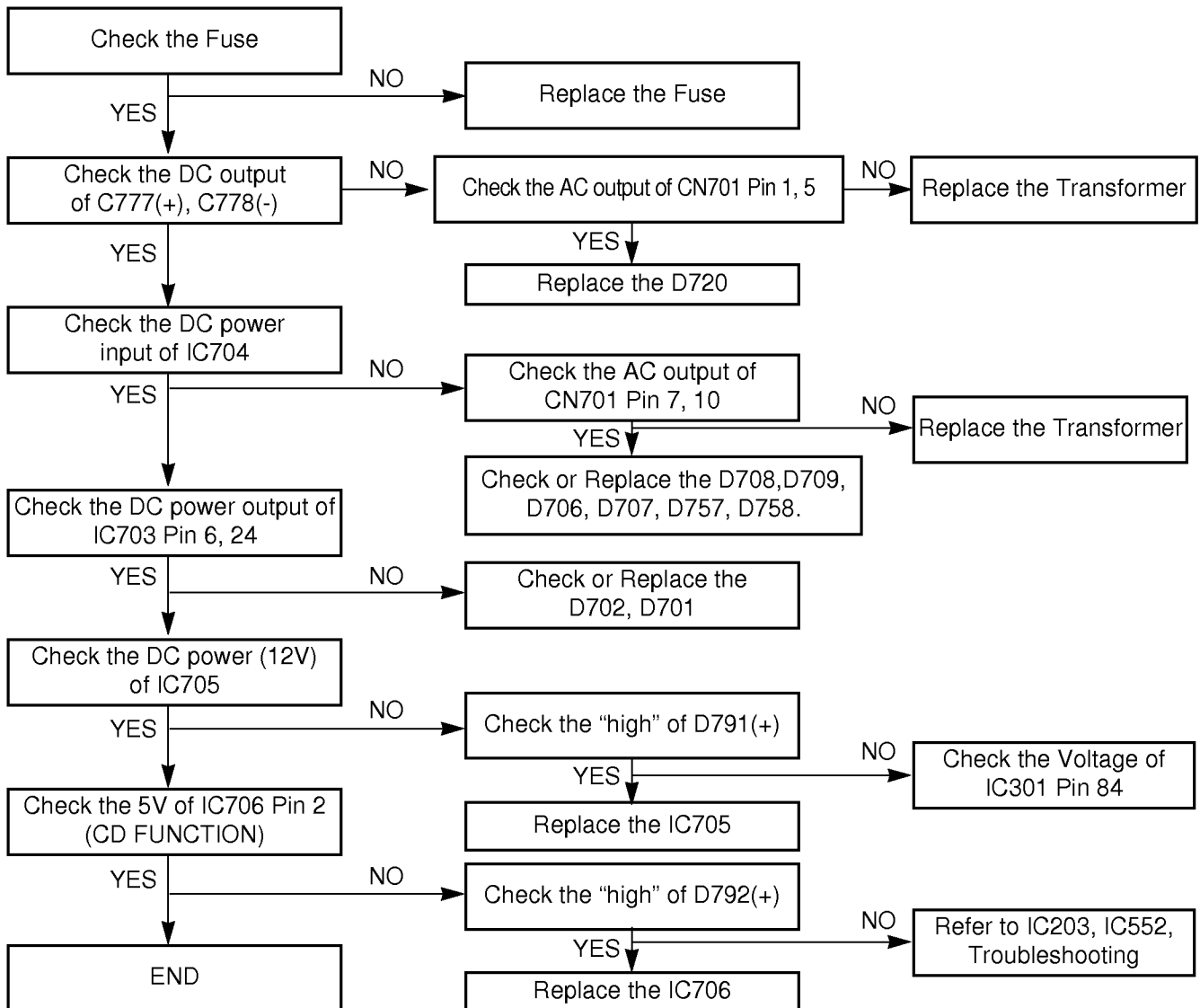
P-SENS PART



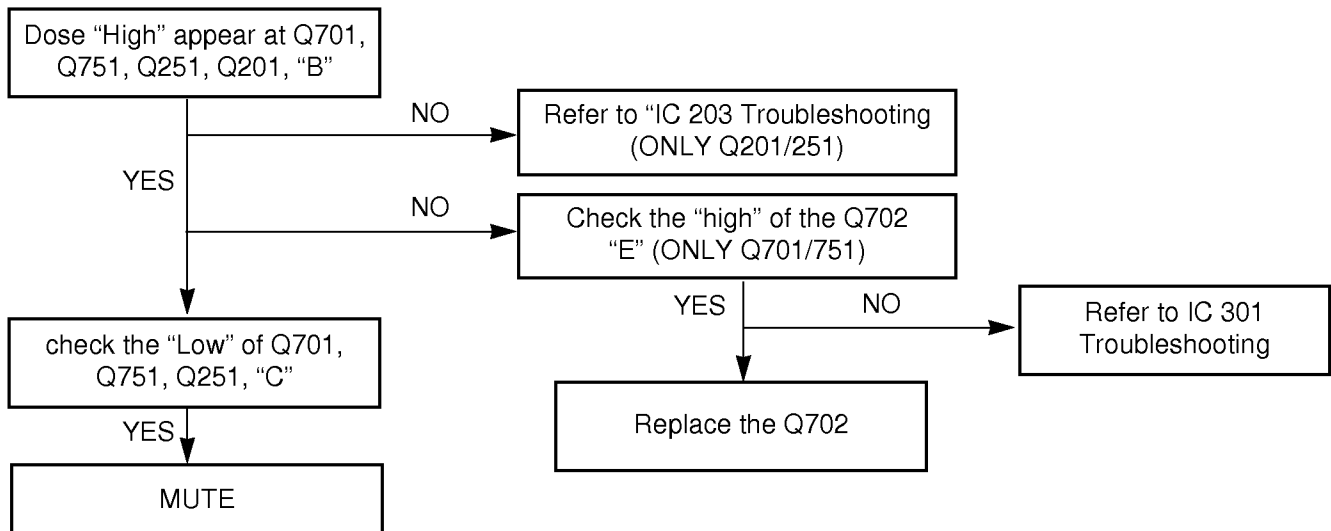
VKK PART



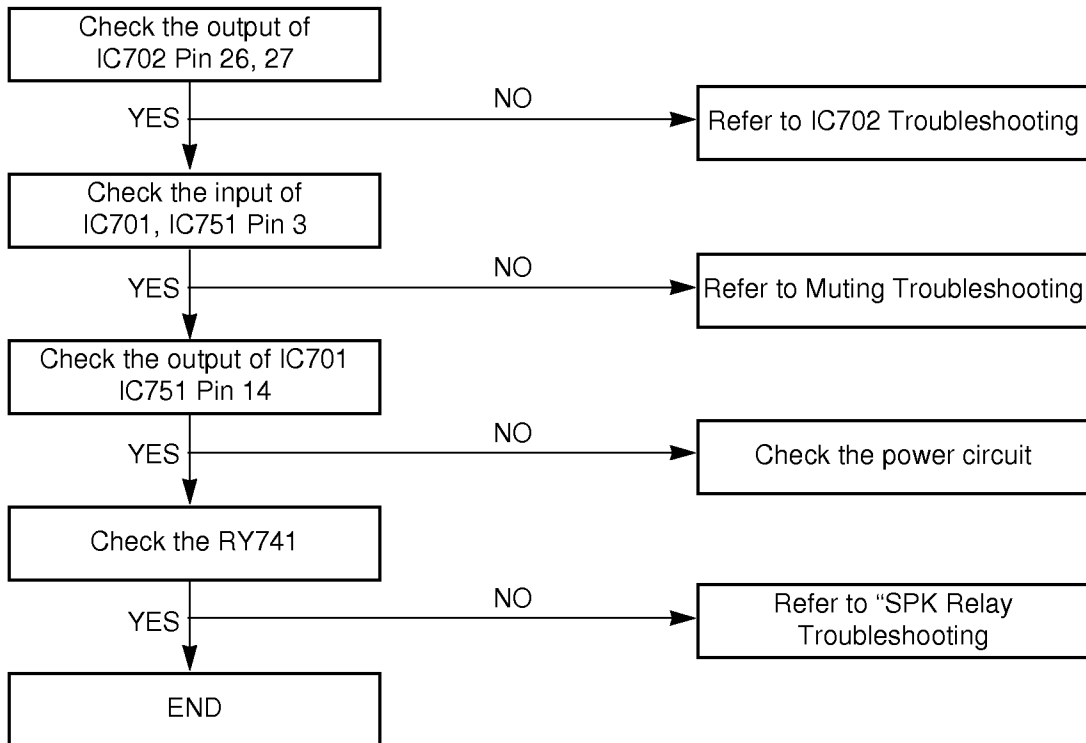
Power Circuit (Power Circuit)



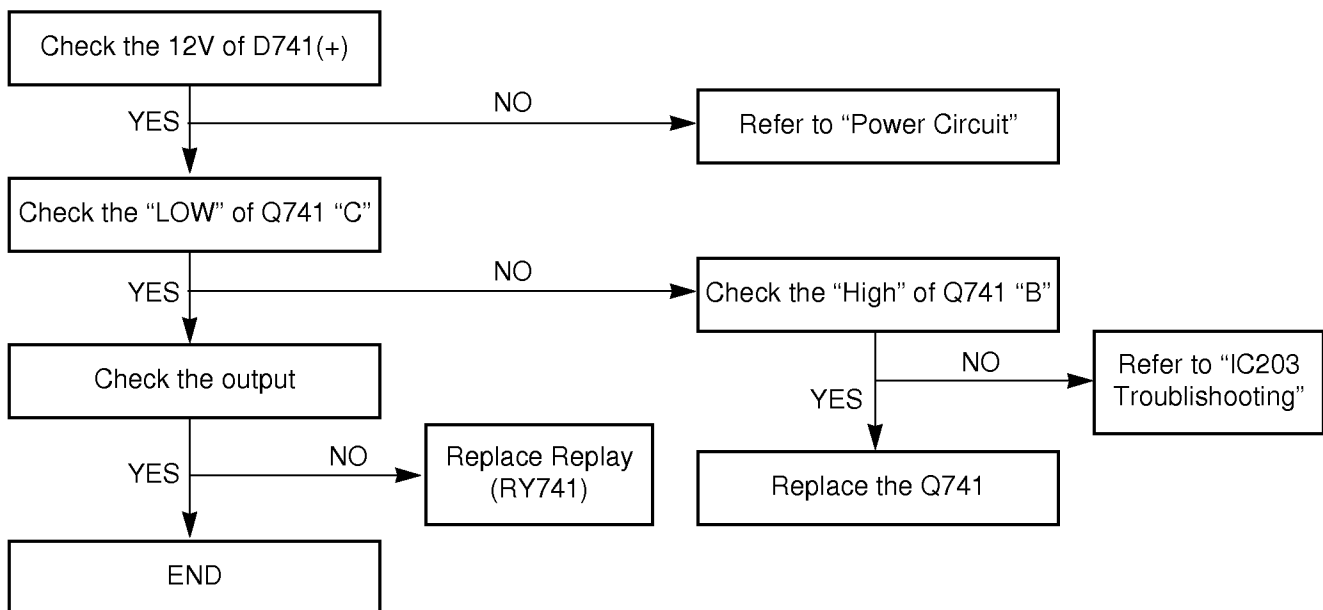
Muting circuit (MUTE)



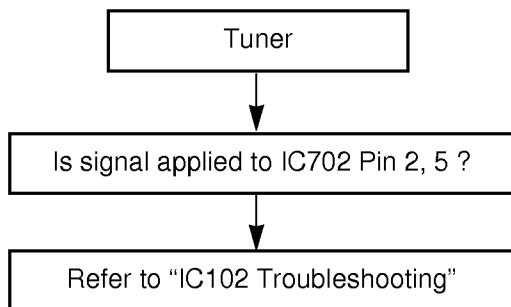
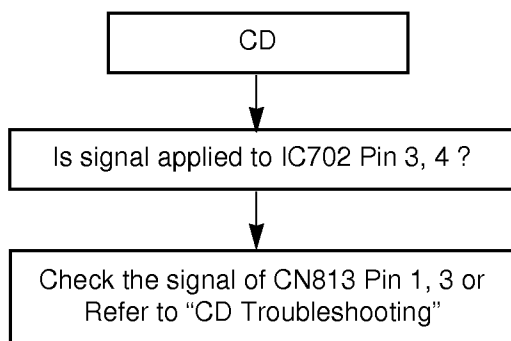
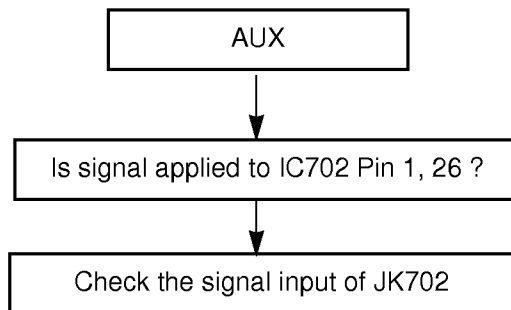
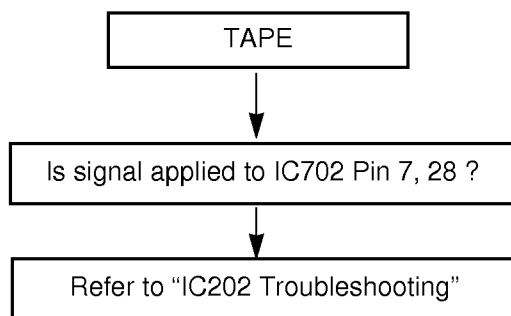
Audio abnormal



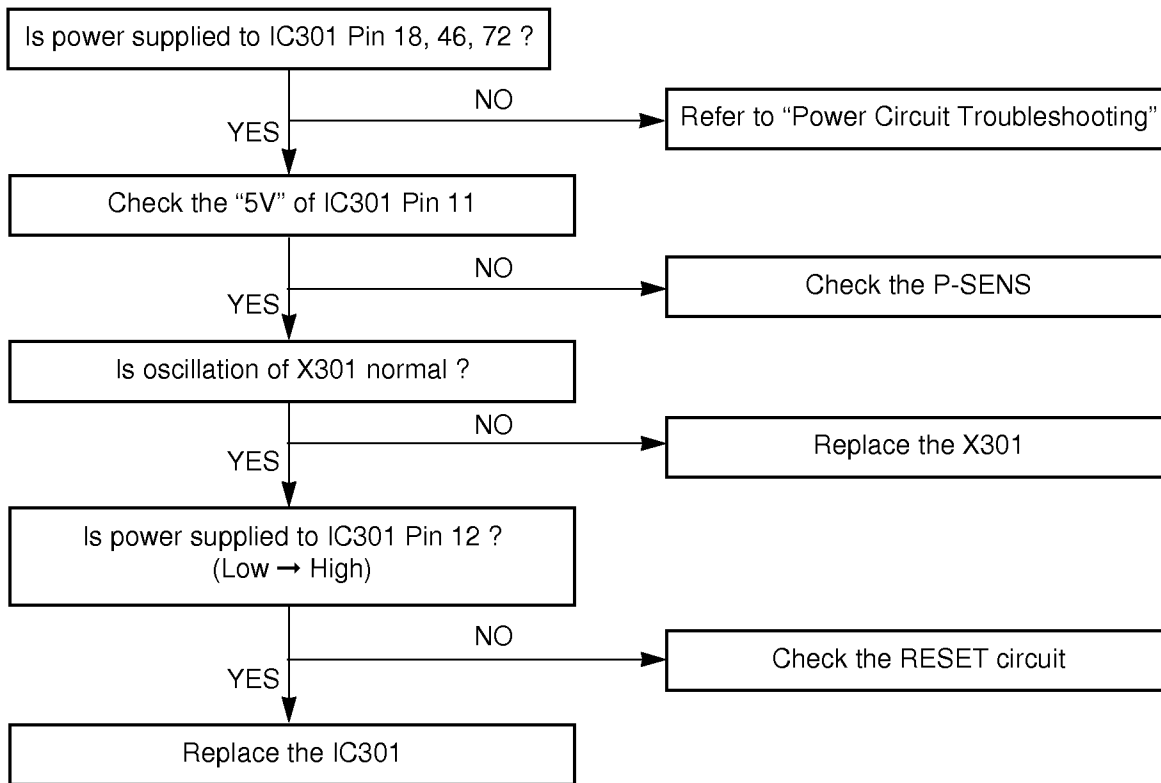
SPK Relay Troubleshooting



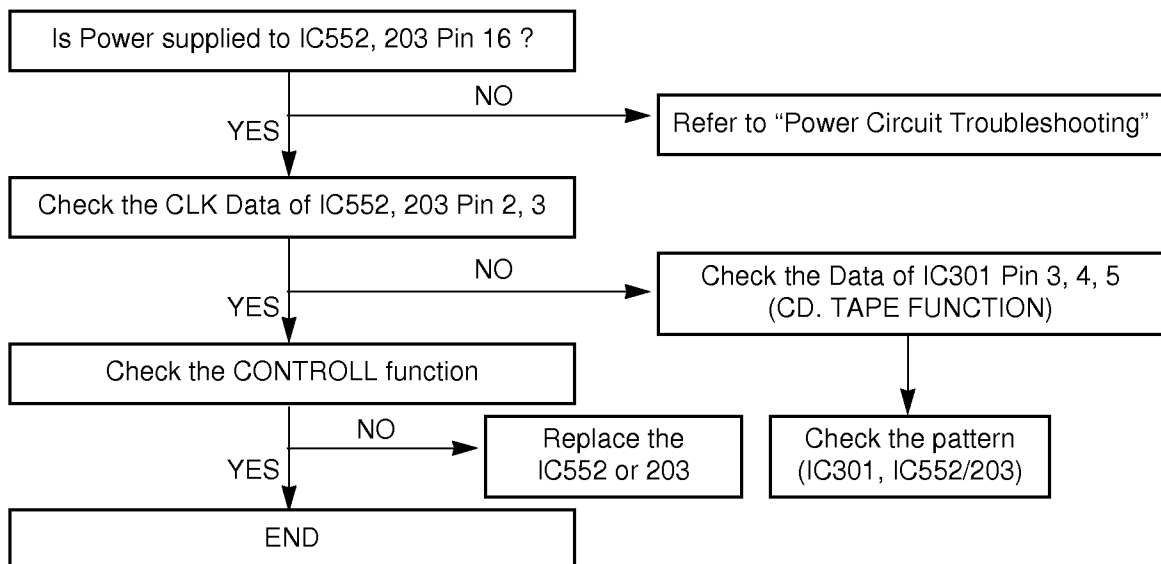
FUNCTION MODE Audio abnormal



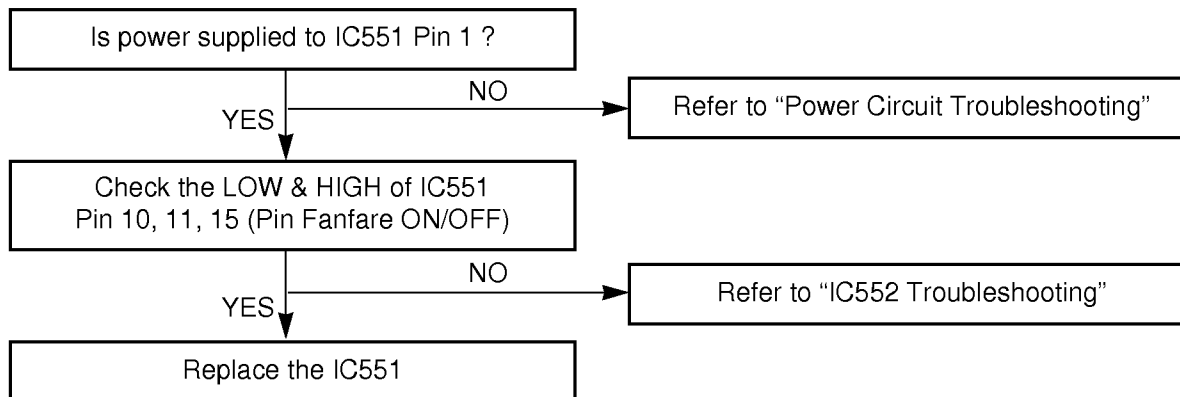
IC301 Troubleshooting



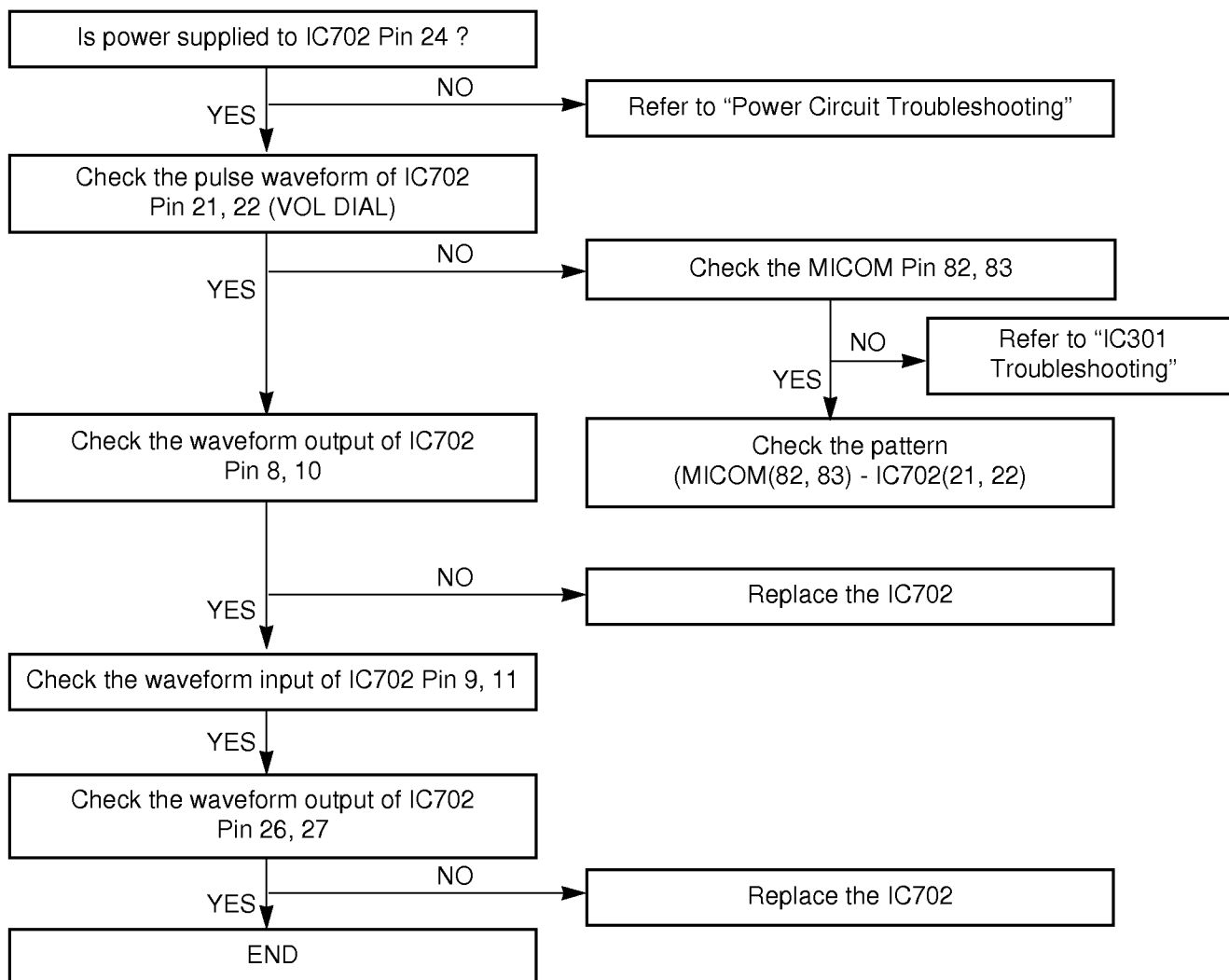
IC552, 203 Troubleshooting



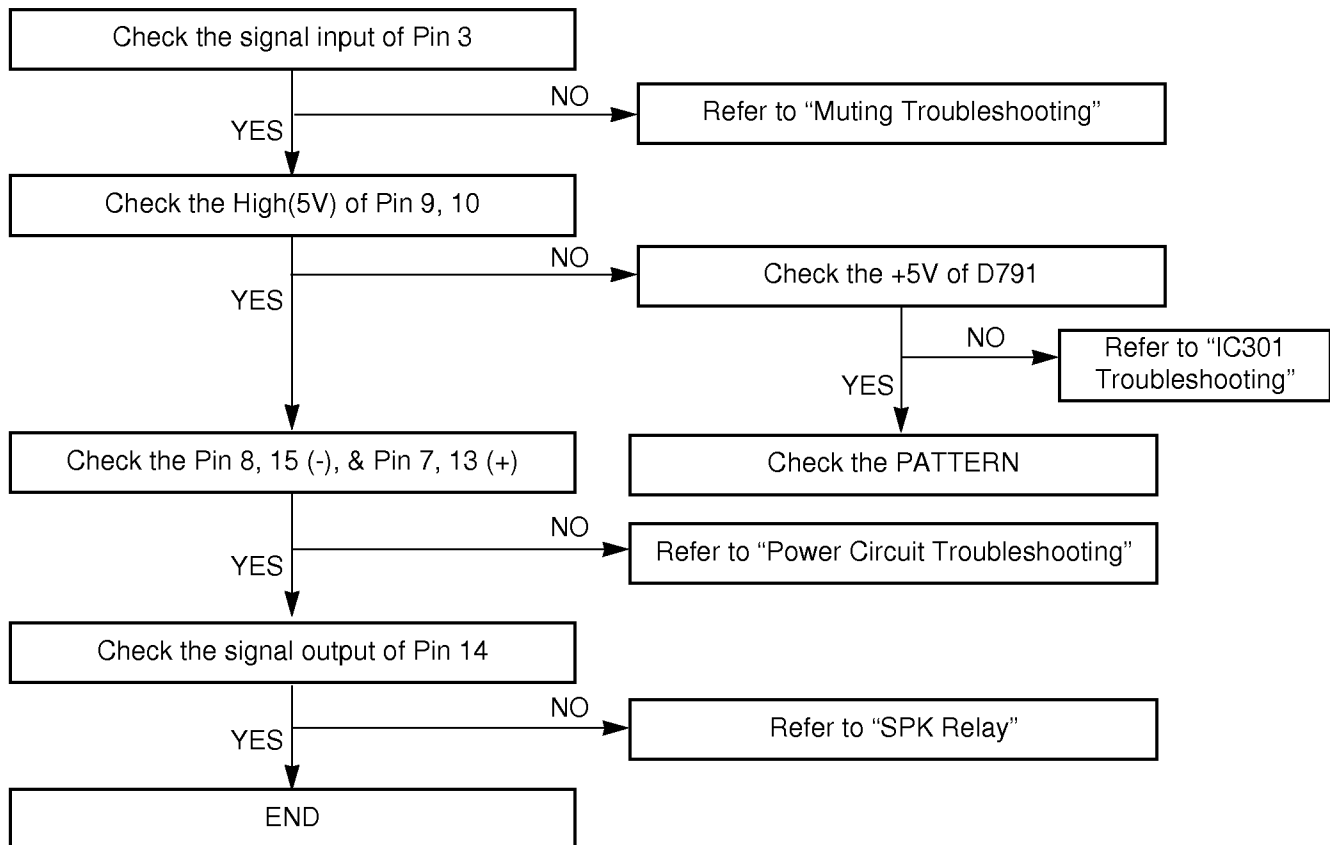
IC551 Troubleshooting



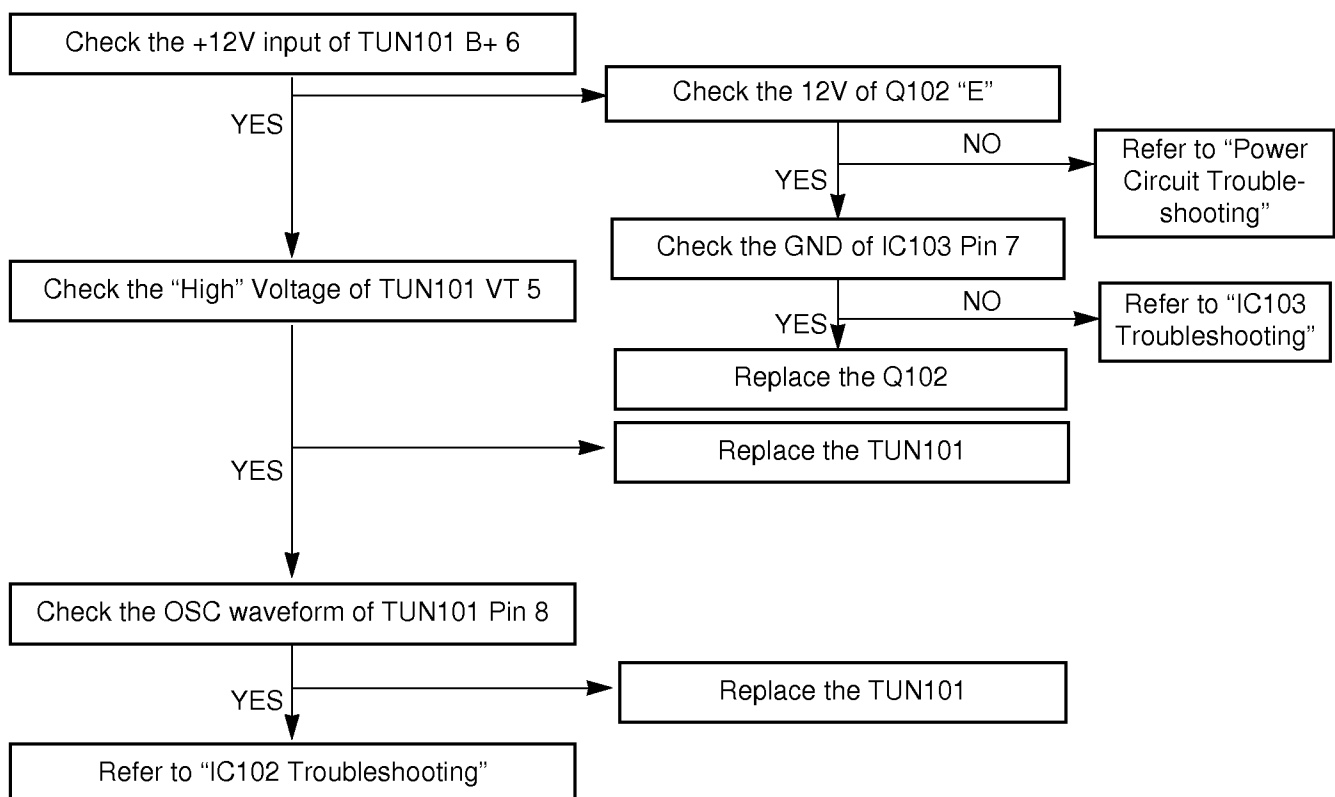
IC 702 Troubleshooting



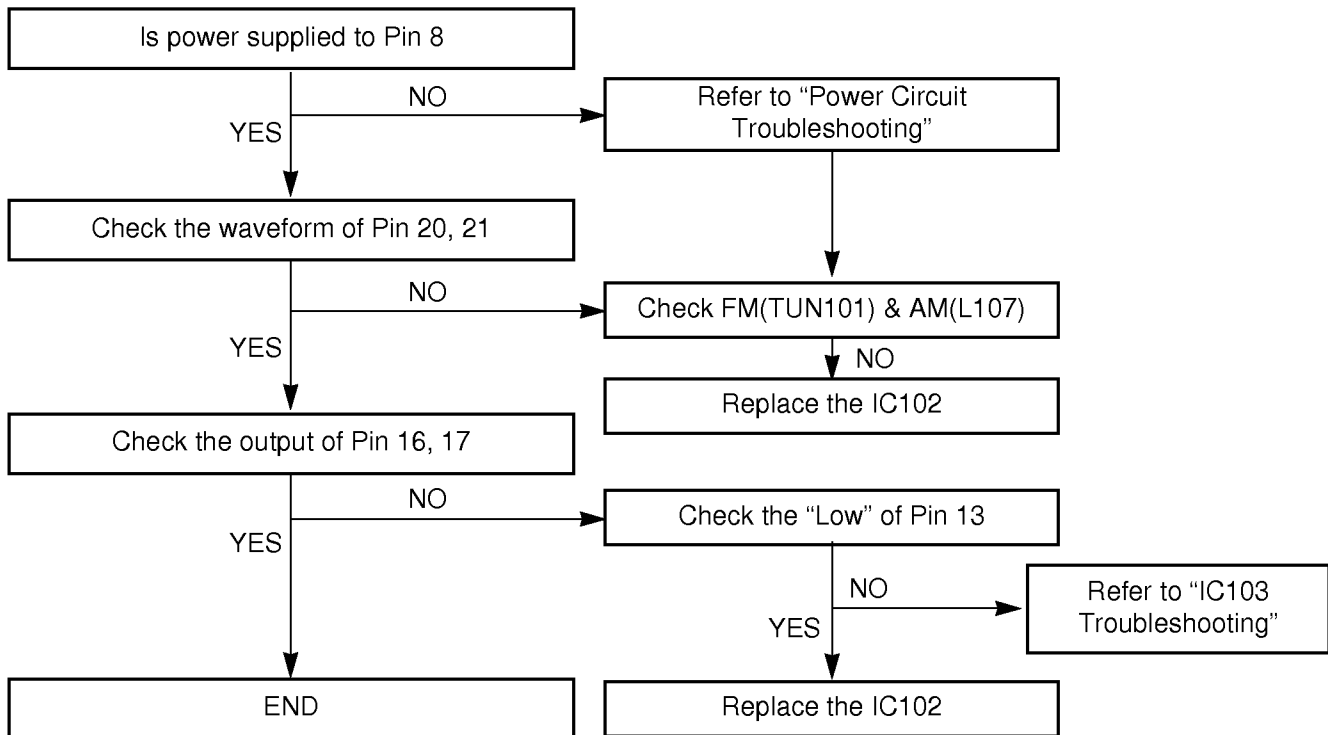
IC701, IC751 Troubleshooting



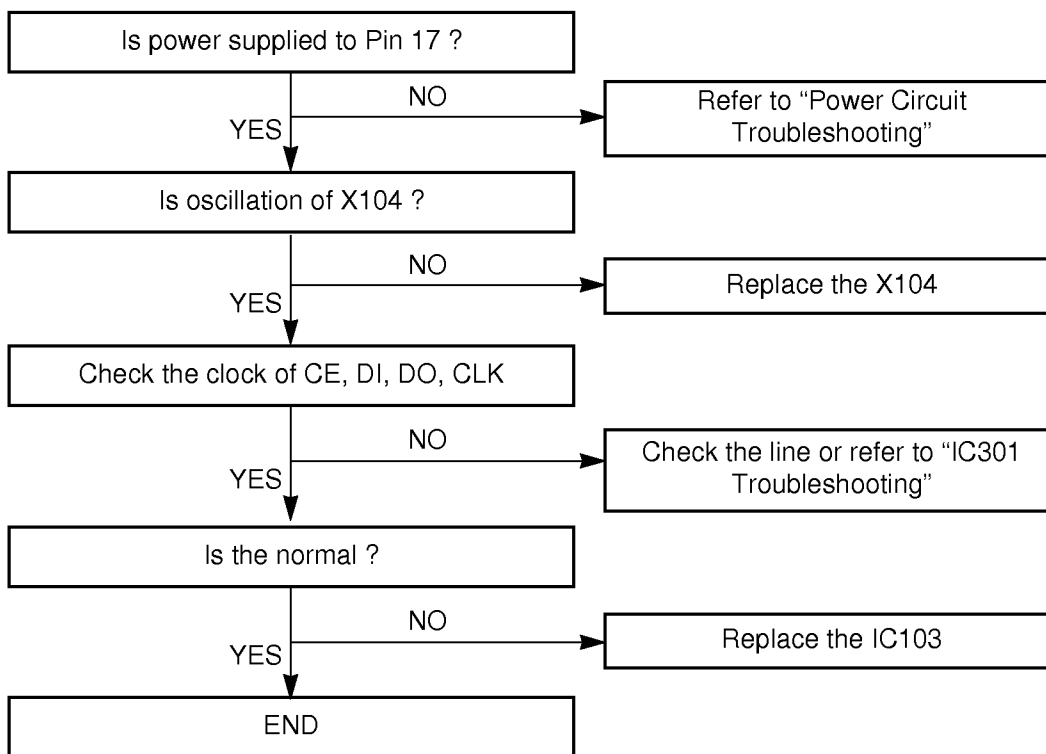
FM (TUN101)



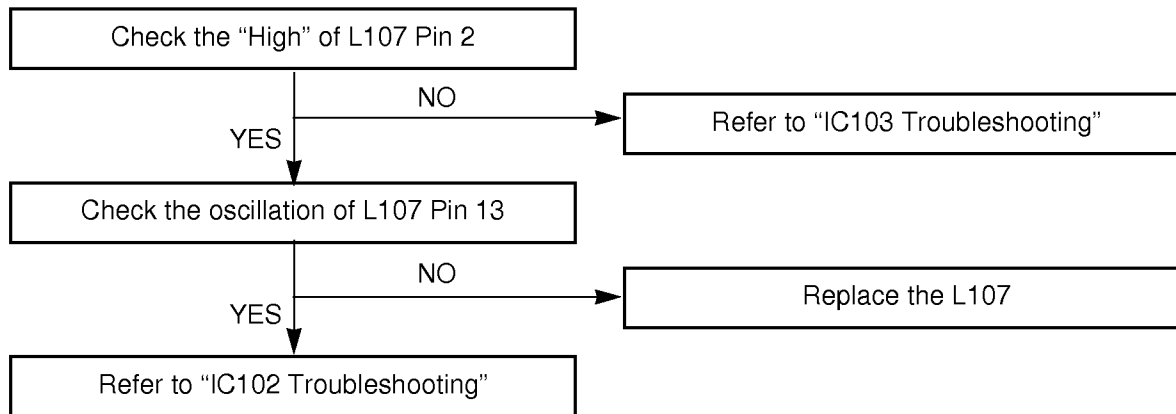
IC102 Troubleshooting



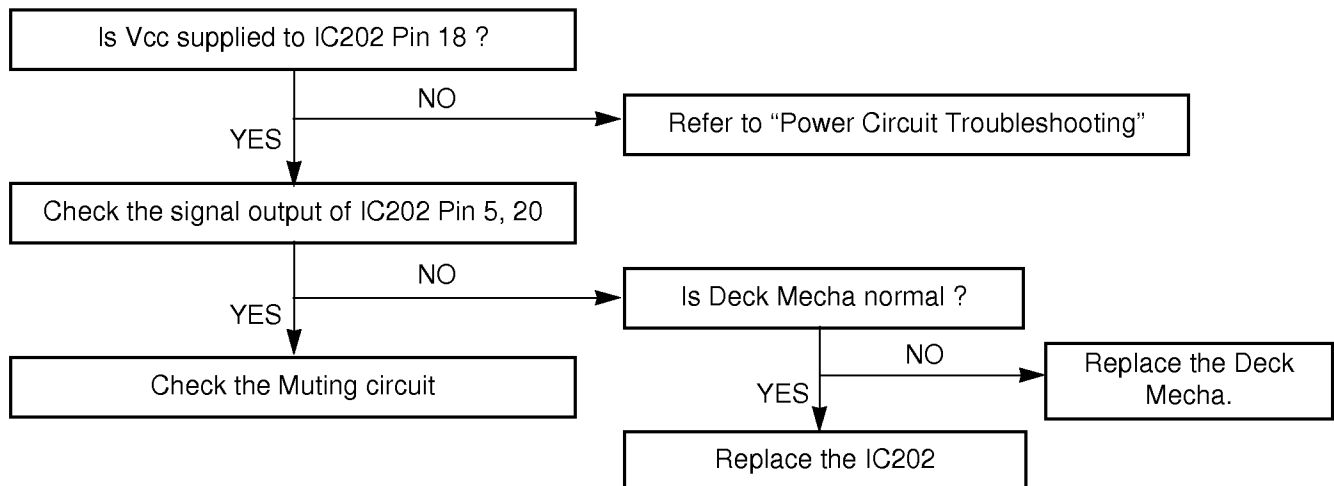
IC103 Troubleshooting



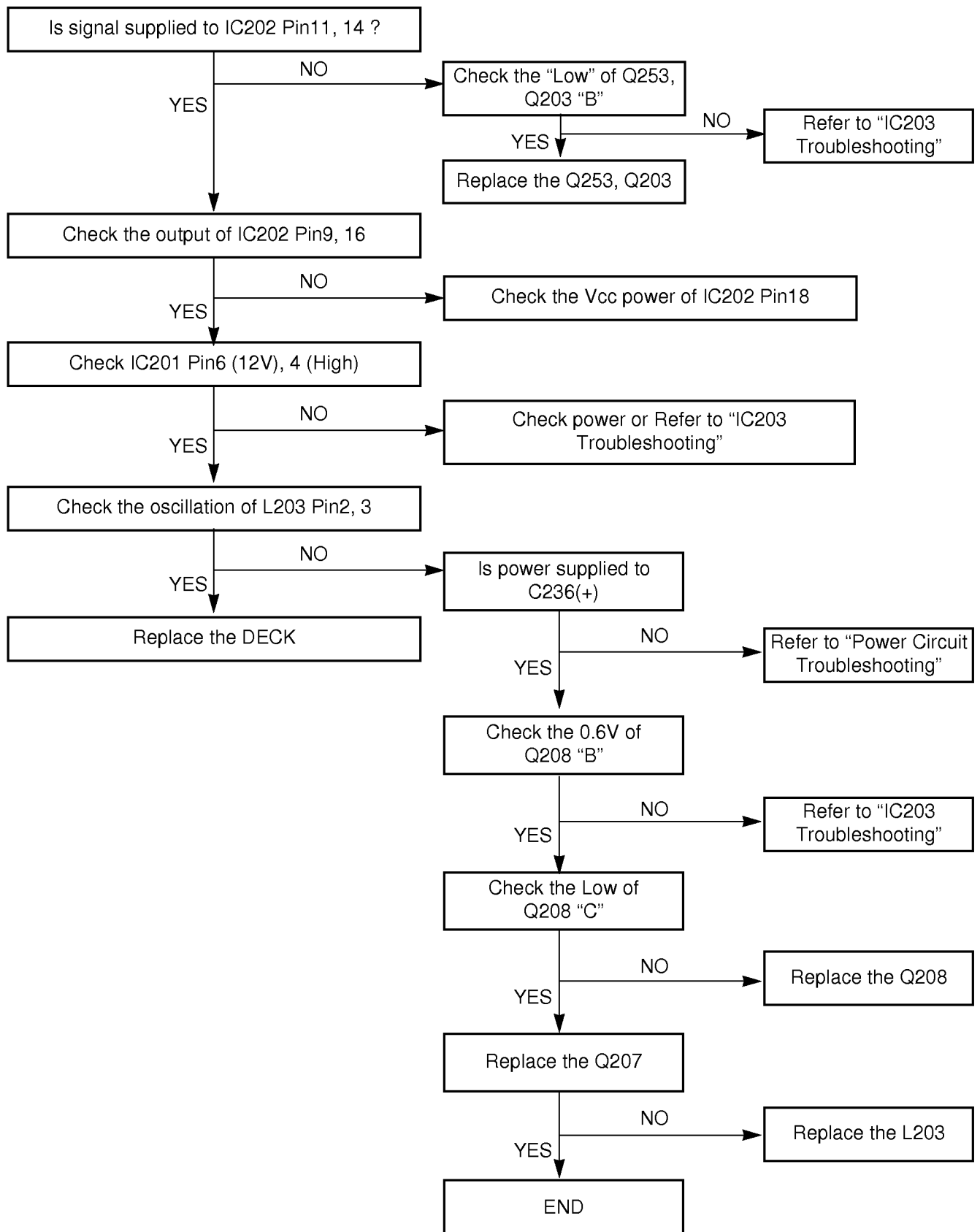
AM•COIL Troubleshooting



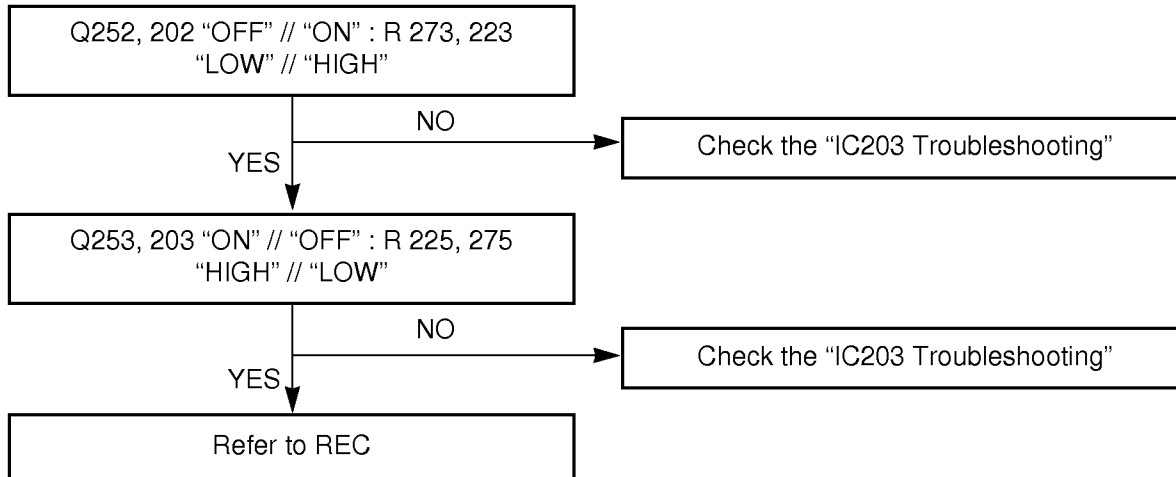
Play



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

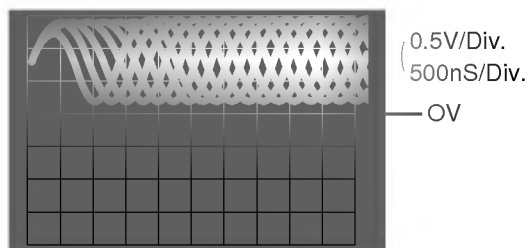


Dubbing (“NORMAL or REC // HIGH”)

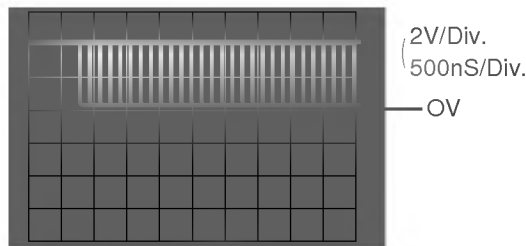


WAVEFORMS OF MAJOR CHECK POINT

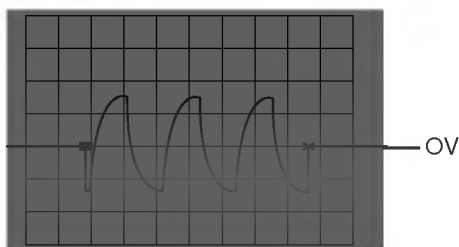
1. HF signal (RF signal) waveform
(Test Point IC501 Pin ⑮) during normal play



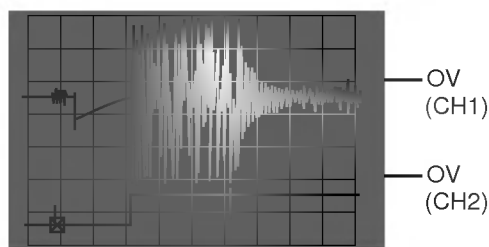
2. EFM signal (IC502 Pin ⑳) waveform
during Normal Play



3. Focus coil drive waveform(PN801 Pin ⑬, ⑭)
• When focus search failed or there is no disc on the tray

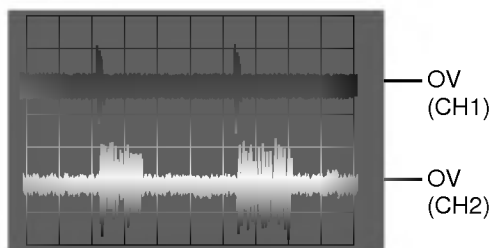


- Focus coil drive waveform(IC503 Pin ⑳, ㉑) and FOK
(IC502 Pin ㉒) when focus search is accomplished



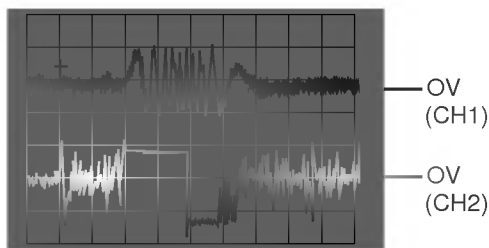
(CH1 : FOCUS COIL DRIVE
SIGNAL 2V/Div.
CH2 : FOK

4. Tracking coil drive waveform (IC501 Pin ⑮ & PN801 Pin ⑭, ⑮) and TEO during track traverse
(1) When time division is 20nS/div



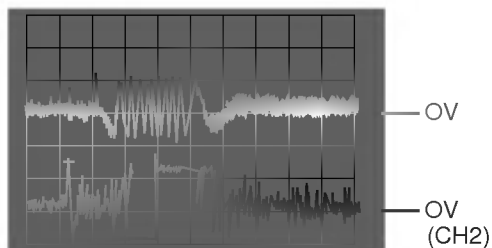
(CH1 : TEO
1V/Div.
CH2 : TRACK COIL DRIVE
SIGNAL 2V/Div.

- (2) When time division 0.5nS/div.
(During forward track traverse)



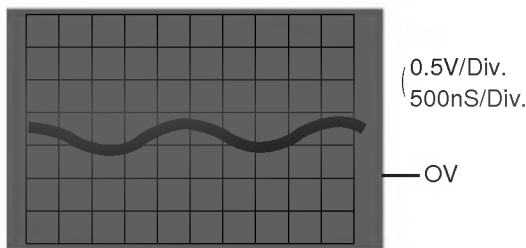
(CH1 : TEO(TP801)
1V/Div.
CH2 : TRACKING COIL DRIVE
SIGNAL 2V/Div.

- (3) When time division is 0.5nS/div.
(During backward Track Traverse)

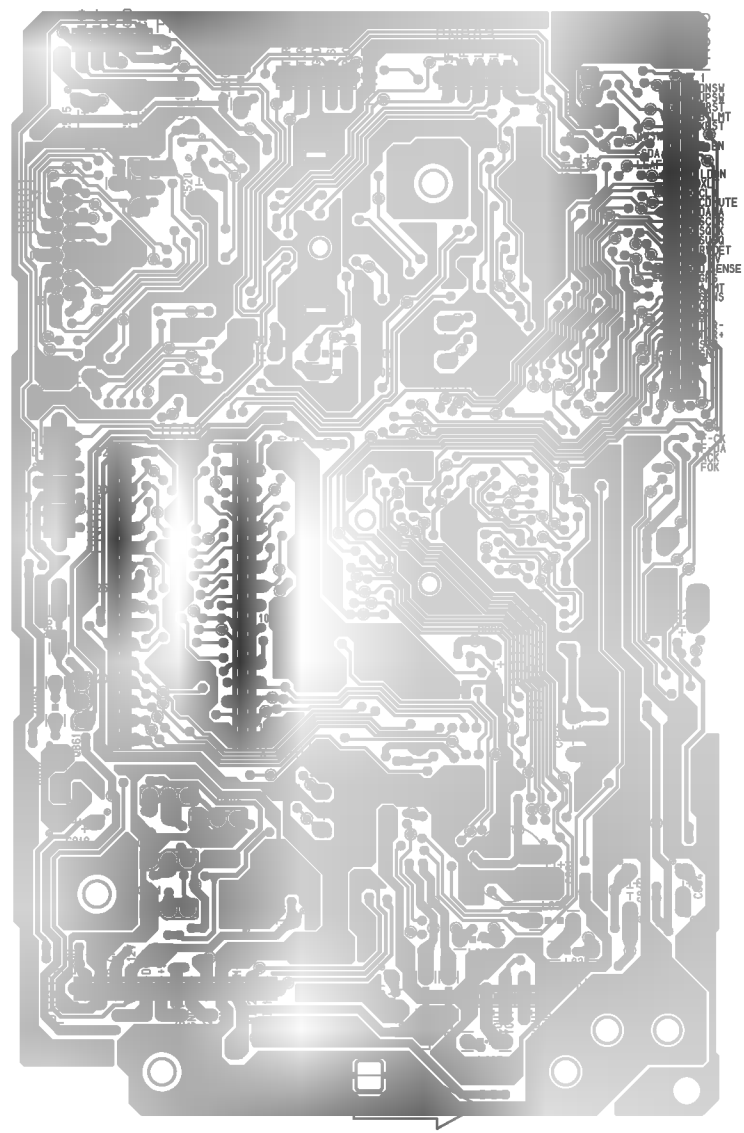


(CH1 : TEO
1V/Div.
CH2 : TRACKING COIL DRIVE
SIGNAL 2V/Div.

5. Feed motor drive waveform(IC503 Pin ㉔, ㉕)
During normal play

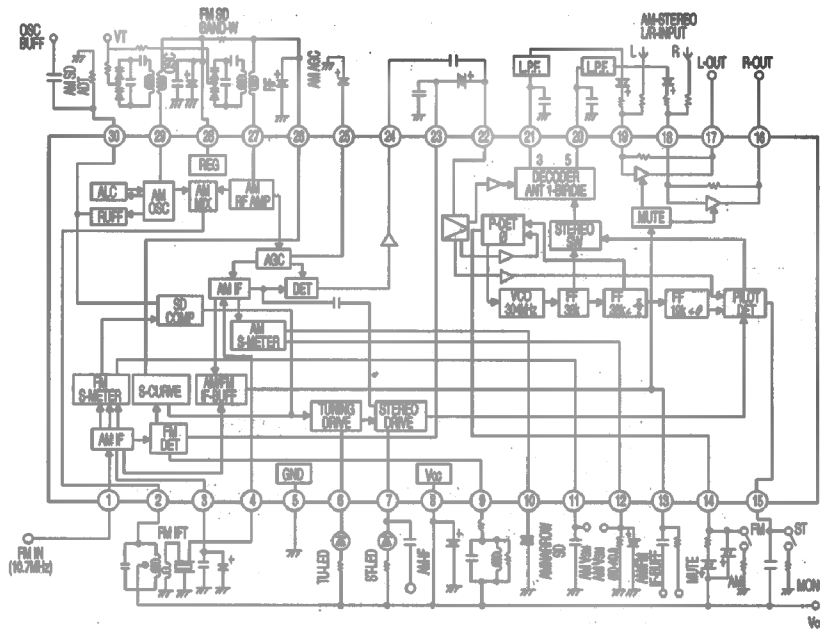


• CD MAIN P.C. BOARD

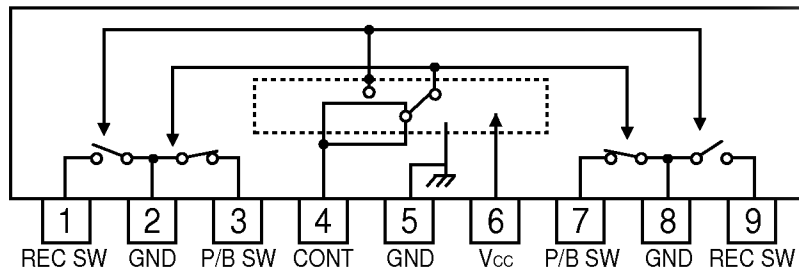


INTERNAL BLOCK DIAGRAM OF ICs

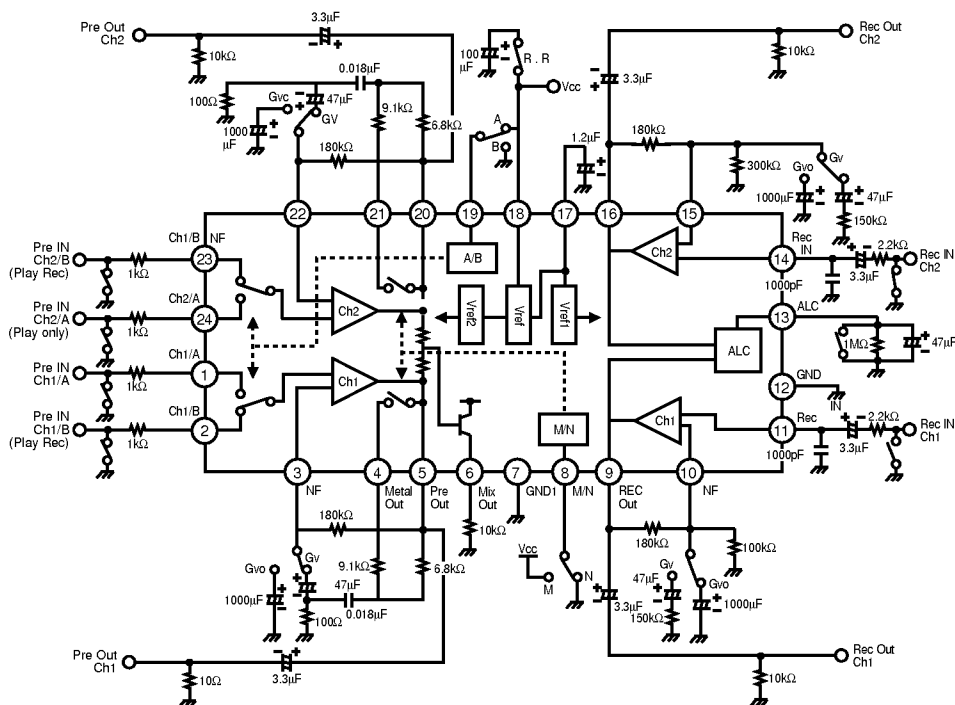
■ LA1837



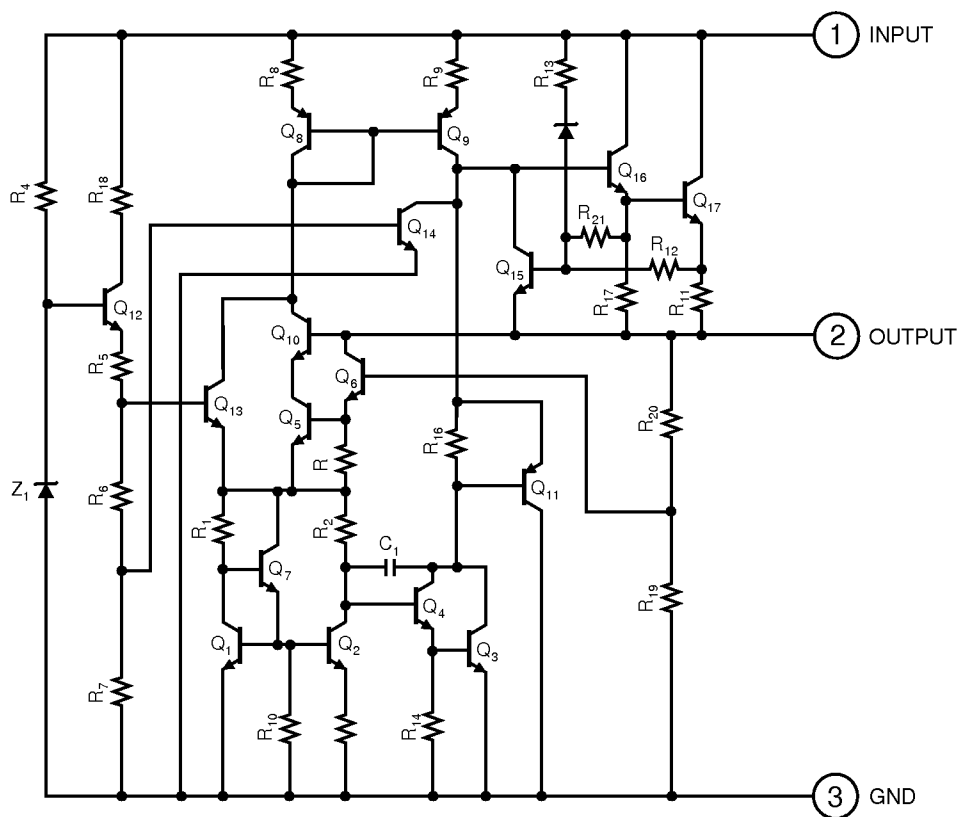
■ BA3126N



■ KIA6289N

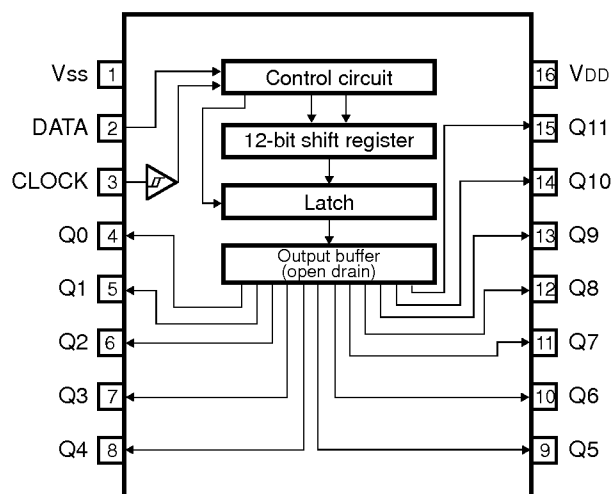


■ KIA7805 P/PI ~ KIA7824P/PI



■ BU2090F

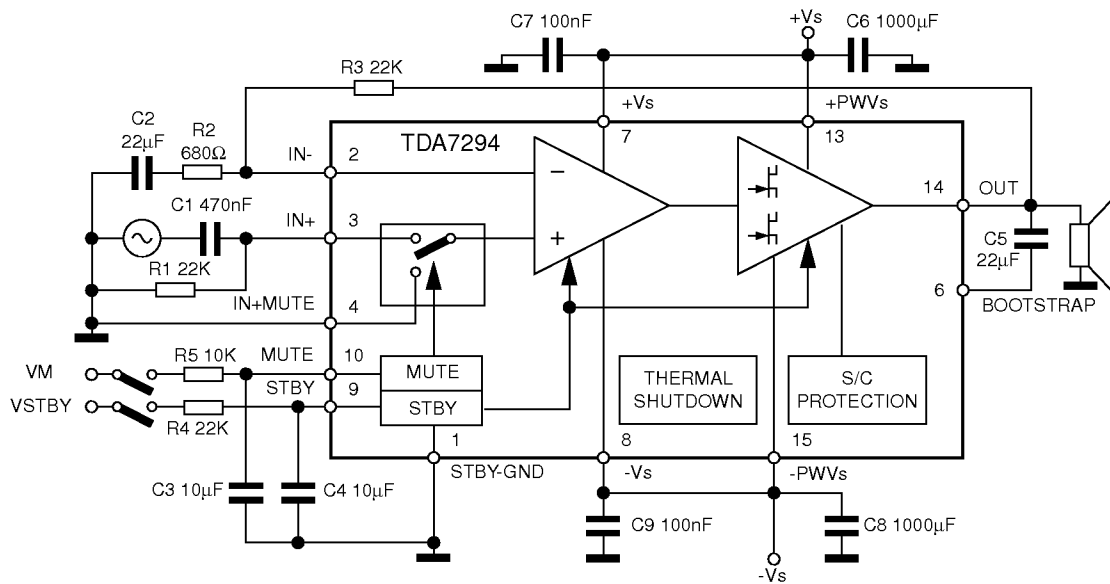
Block diagram



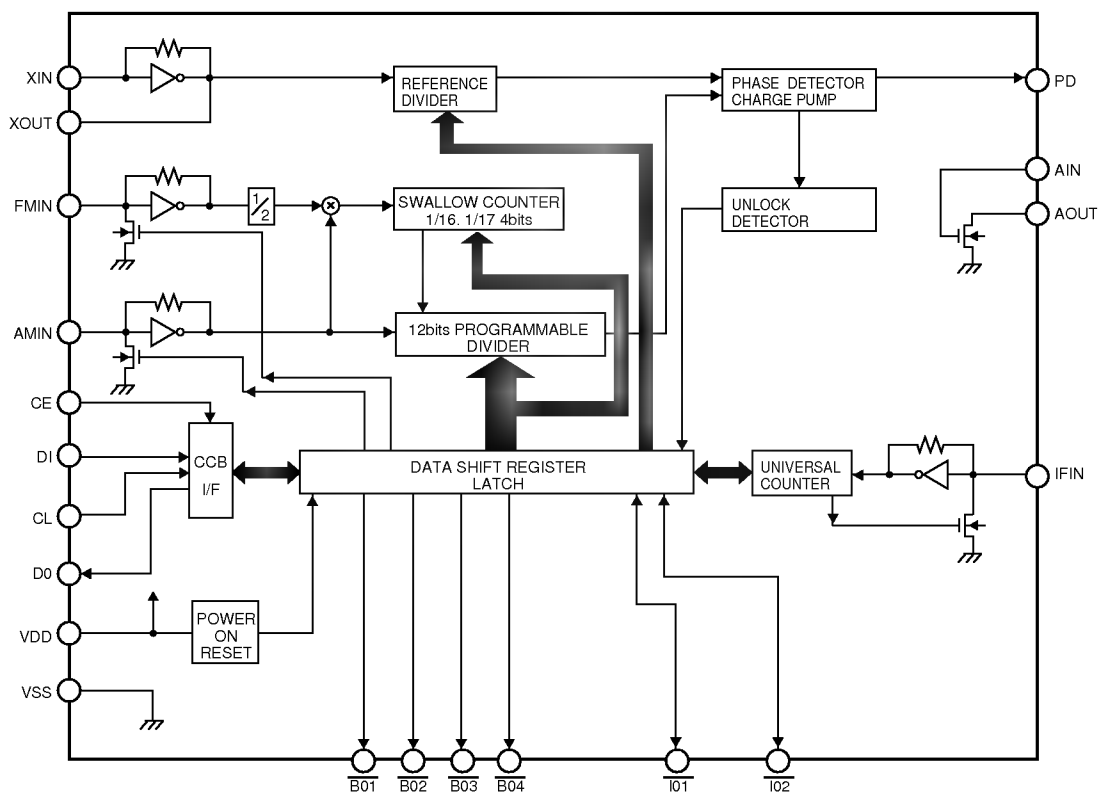
PIN DESCRIPTION

Pin No.			Pin name	Function
BU2090/F/FS	BU2092/F	BU2092/FV		
1	1	1	Vss	GND
2	2	2	DATA	Serial data input
3	3	3	CLOCK	Data shift clock input
-	4	4	LCK	Data latch clock input
4	5	5	Q0	parallel data output
5	6	6	Q1	parallel data output
6	7	7	Q2	parallel data output
7	8	8	Q3	parallel data output
8	9	9	Q4	parallel data output
9	10	10	Q5	parallel data output
10	11	11	Q6	parallel data output
-	-	12	N.C.	Not connected
-	-	13	N.C.	Not connected
11	12	14	Q7	parallel data output
12	13	15	Q8	parallel data output
13	14	16	Q9	parallel data output
14	15	17	Q10	parallel data output
15	16	18	Q11	parallel data output
-	17	19	$\overline{OE}$	Output Enable
16	18	20	VDD	Power supply

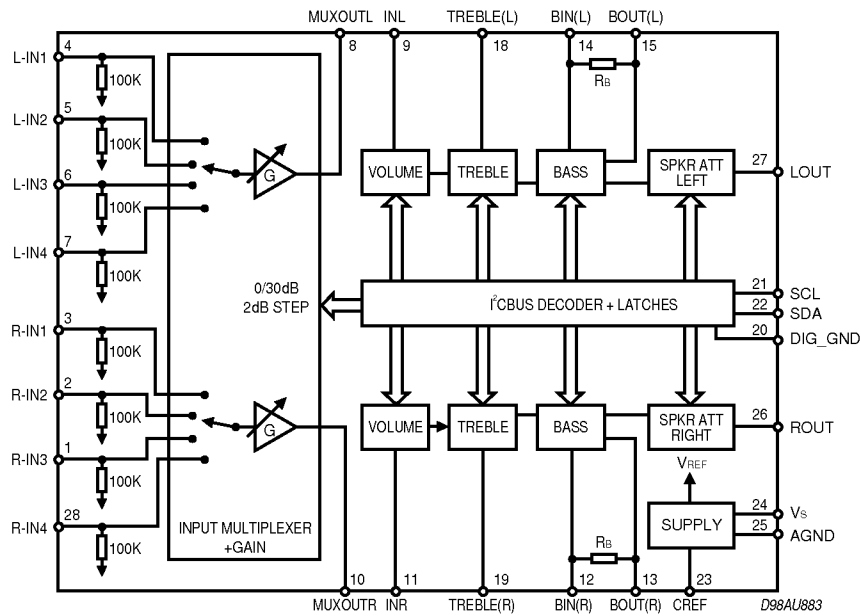
■ TDA7294V



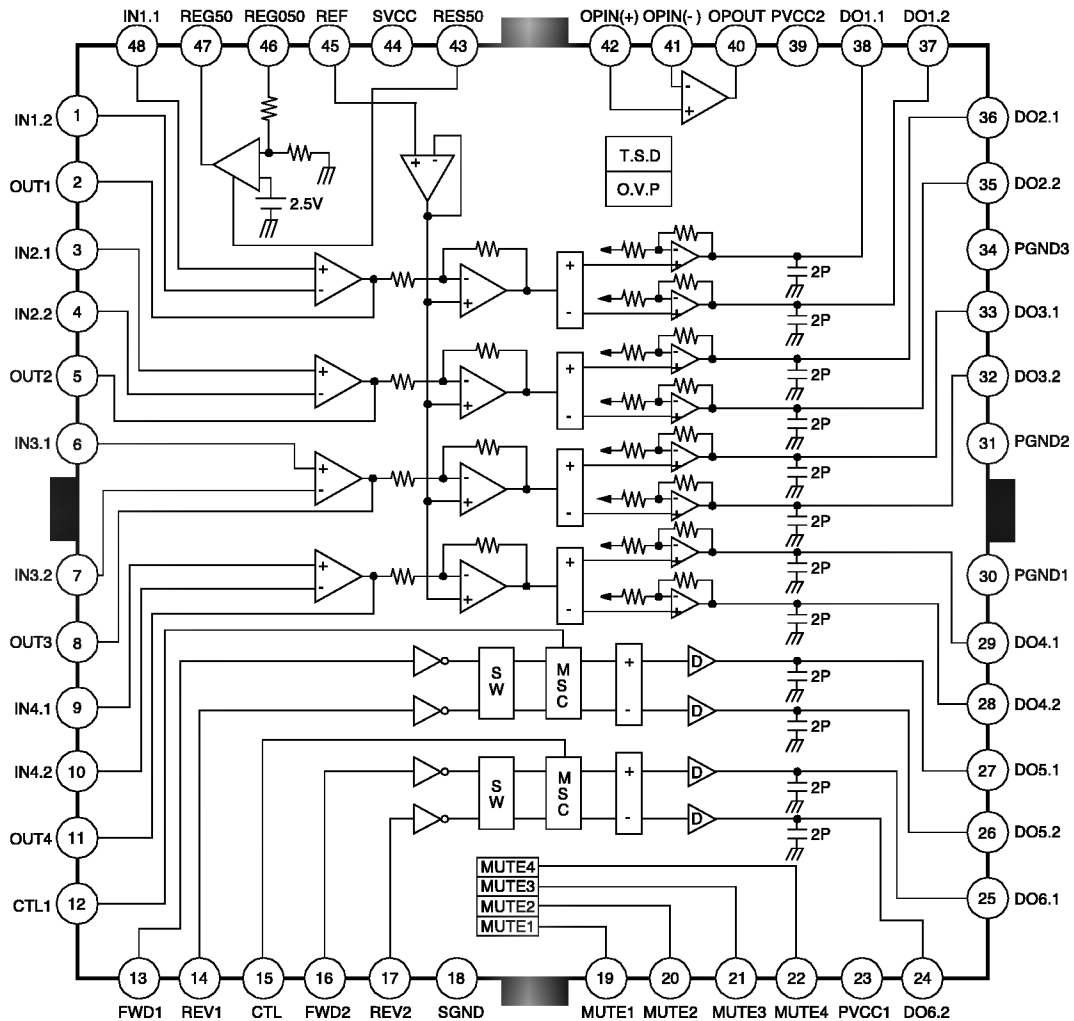
■ LC72131, 72131M



■ TDA7440D



■ FAN8033

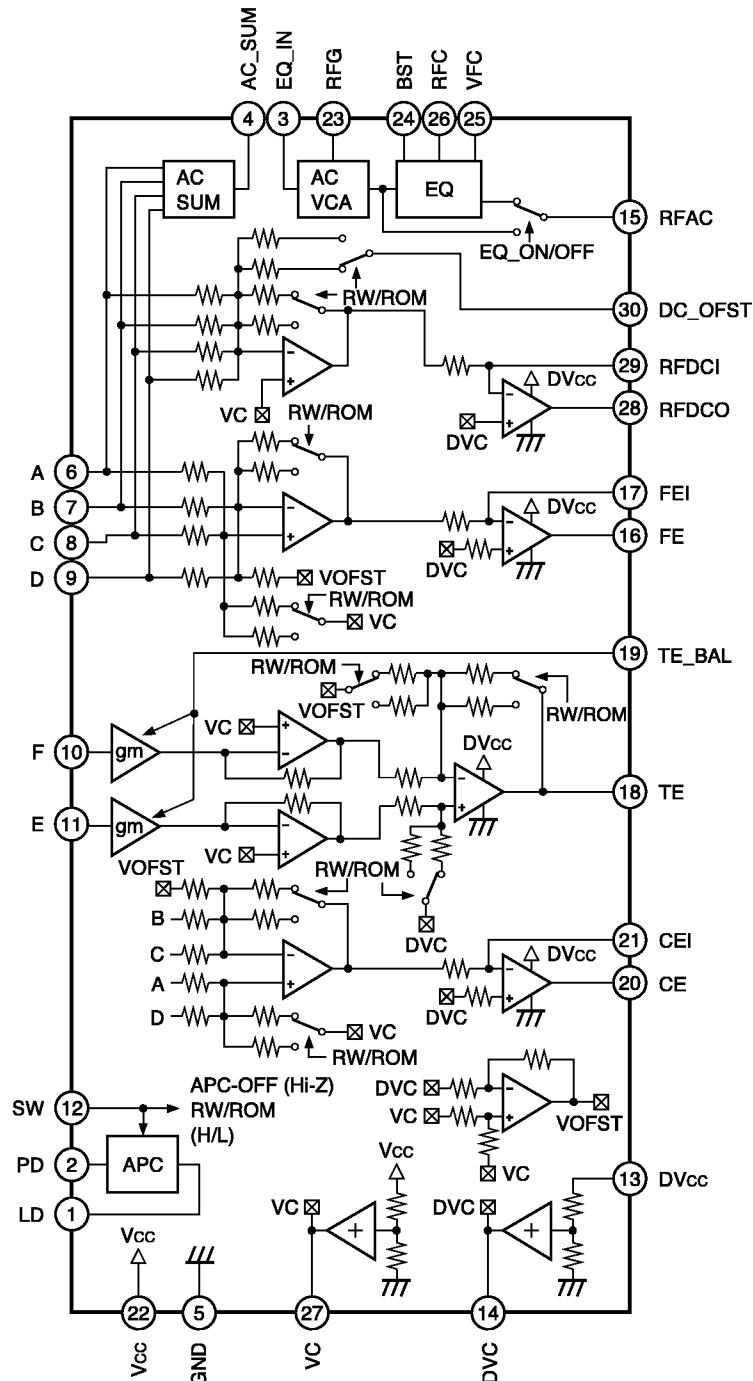


PIN DESCRIPTION

Pin Number	Pin Name	I/O	Pin Function Description
1	IN1.2	I	CH 1 op-amp input (-)
2	OUT1	O	CH 1 op-amp output
3	IN2.1	I	CH 2 op-amp input (+)
4	IN2.2	I	CH 2 op-amp input (-)
5	OUT2	O	CH 2 op-amp output
6	IN3.1	I	CH 3 op-amp input (+)
7	IN3.2	I	CH 3 op-amp input (-)
8	OUT3	O	CH 3 op-amp output
9	IN4.1	I	CH 4 op-amp input (+)
10	IN4.2	I	CH 4 op-amp input (-)
11	OUT4	O	CH 4 op-amp output
12	CTL1	I	CH 5 motor speed control
13	FWD1	I	CH 5 forward input
14	REW1	I	CH 5 reverse input
15	CTL2	I	CH 6 motor speed control
16	FWD2	I	CH 6 forward input
17	REW2	I	CH 6 reverse input
18	SGND	-	Signal ground
19	MUTE1	I	CH 1 mute
20	MUTE2	I	CH 2 mute
21	MUTE3	I	CH 3 mute
22	MUTE4	I	CH 4 mute
23	PVCC1	-	Power supply voltage (For CH 5, CH 6)
24	DO6.2	O	CH 6 drive output
25	DO6.1	O	CH 6 drive output
26	DO5.2	O	CH 5 drive output
27	DO5.1	O	CH 5 drive output
28	DO4.2	O	CH 4 drive output
29	DO4.1	O	CH 4 drive output
30	PGND	-	Power ground
31	PGND	-	Power ground
32	DO3.2	O	CH 3 drive output
33	DO3.1	O	CH 3 drive output
34	PGND	-	Power ground
35	DO2.2	O	CH 2 drive output
36	DO2.1	O	CH 2 drive output
37	DO1.2	O	CH 1 drive output
38	DO1.1	O	CH 1 drive output
39	PVCC2	-	Power supply voltage (For CH 1, CH 2, CH 3, CH 4)
40	OPOUT	O	Opamp output

Pin Number	Pin Name	I/O	Pin Function Description
41	OPIN(-)	I	Opamp input (-)
42	OPIN(+)	I	Opamp input (+)
43	RES50	I	Regulator 5V reset
44	SVCC	-	Signal supply voltage
45	REF	I	Bias voltage input
46	REG050	O	Regulator 5V output
47	REG50	O	Regulator output
48	IN1.1	I	CH 1 opamp input (+)

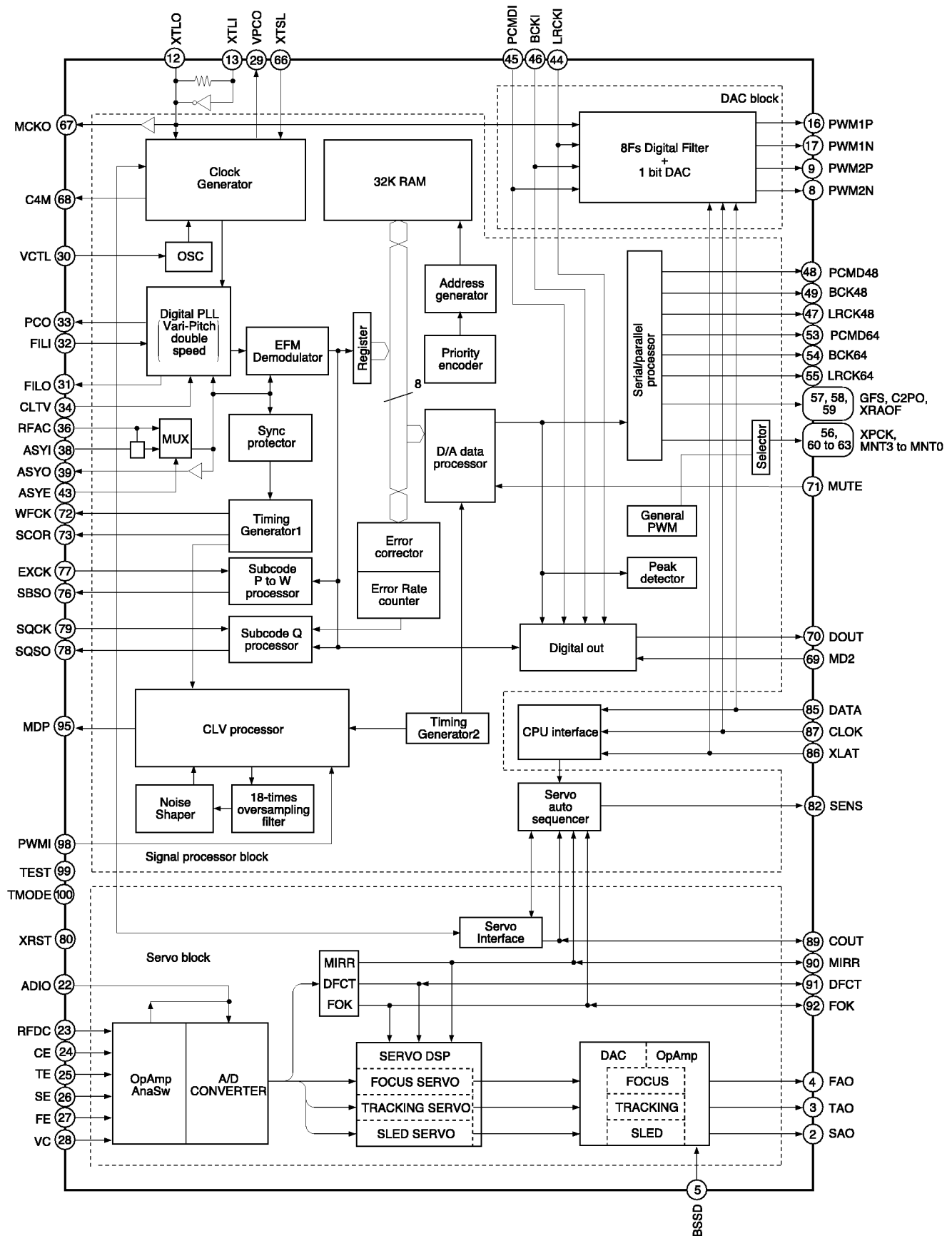
■ CXA2581



PIN DESCRIPTION

Pin No.	Symbol	I/O	Description
1	LD	O	APC amplifier output.
2	PD	I	APC amplifier input.
3	EQ_IN	I	RFAC system VCA block and EQ block input.
4	AC_SUM	O	RFAC system RF SUM output.
5	GND	I	GND.
6	A	I	A signal input.
7	B	I	B signal input.
8	C	I	C signal input.
9	D	I	D signal input.
10	E	I	E signal input.
11	F	I	F signal input.
12	SW	I	Mode switching signal input.
13	DVcc	I	DVcc.
14	DVC	O	DVC output.
15	RFAC	O	RFAC signal output.
16	FE	O	Focus error signal output.
17	FEI	I	FE amplifier virtual ground.
18	TE	O	Tracking error signal output.
19	TE_BAL	I	TE balance adjustment.
20	CE	O	Center error signal output.
21	CEI	I	CE amplifier virtual ground.
22	Vcc	I	Vcc.
23	RFG	I	RFAC system VCA block low frequency gain adjustment.
24	BST	I	EQ boost level adjustment.
25	VFC	I	EQ cut-off frequency adjustment.
26	RFC	I	EQ cut-off frequency adjustment.
27	VC	O	VC voltage output.
28	RFDCO	O	RFDC signal output.
29	RFDCI	I	RFDC amplifier virtual ground.
30	DC_OFST	I	RFDC signal output offset adjustment.

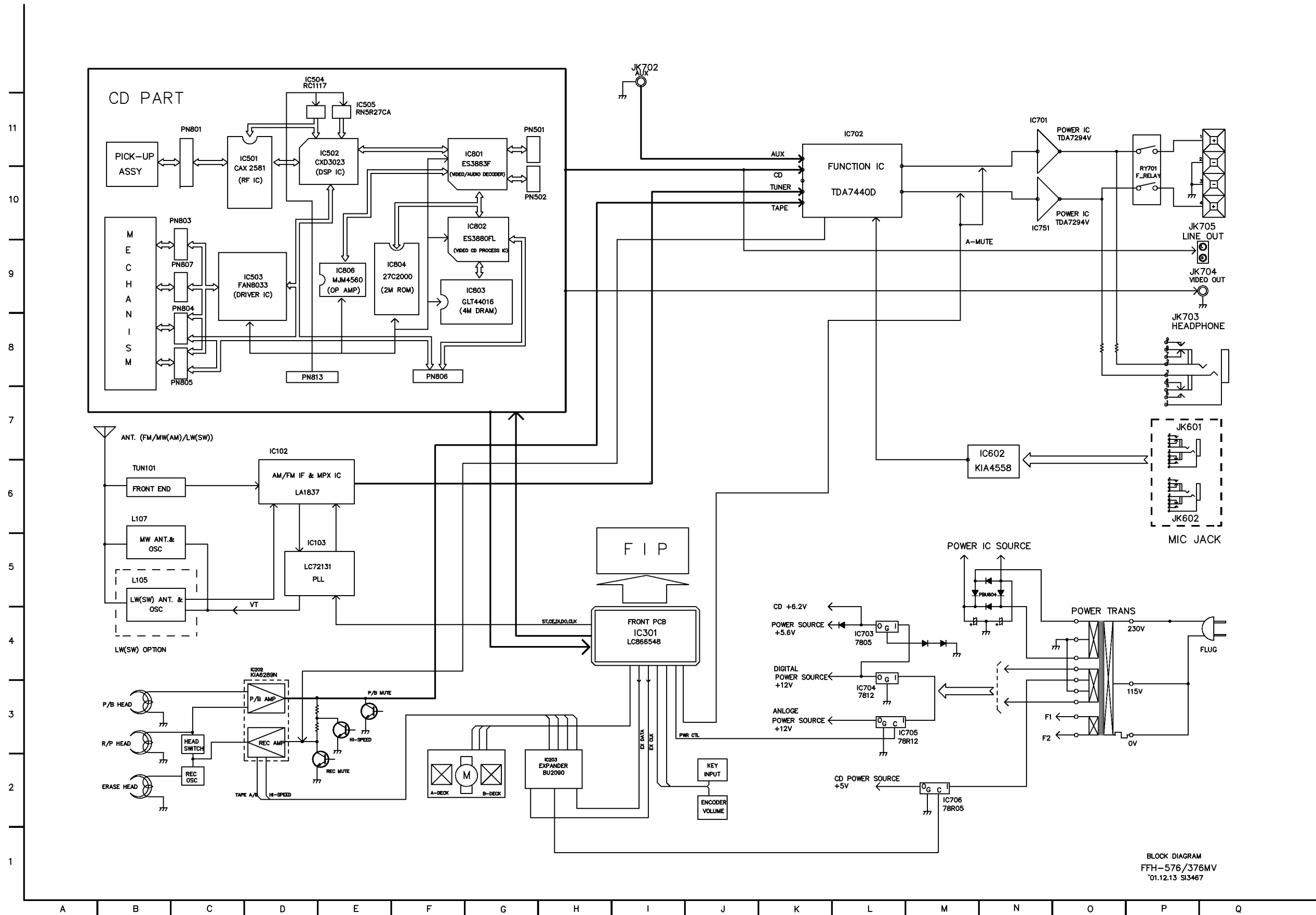
■ CXA3023



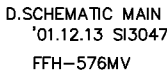
PIN DESCRIPTION

Pin No.	Symbol	I/O		Description
1	AVS6			Analog GND.
2	SAO	O	Analog	Sled filter DAC analog output.
3	TAO	O	Analog	Tracking filter DAC analog output.
4	FAO	O	Analog	Focus filter DAC analog output.
5	BSSD	I		Constant current input for servo filter DAC analog output.
6	AVD6			Analog power supply. (2.5V)
7	AVS3			Analog GND.
8	PWM2N	O	1, 0	Audio DAC PWM output. Default right channel, reversed phase.
9	PWM2P	O	1, 0	Audio DAC PWM output. Default right channel, forward phase.
10	AVD3			Analog power supply. (2.5V)
11	AVD4			Analog power supply. (2.5V)
12	XTLO	O	1, 0	Master clock crystal oscillation circuit output.
13	XTLI	I		Master clock crystal oscillation circuit input.
14	AVS4			Analog GND.
15	AVS5			Analog GND.
16	PWM1P	O	1, 0	Audio DAC PWM output. Default left channel, forward phase.
17	PWM1N	O	1, 0	Audio DAC PWM output. Default left channel, reversed phase.
18	AVD5			Analog power supply. (2.5V)
19	AVD2			Analog power supply. (2.5V)
20	IGEN	I		Connects the operational amplifier current source reference resistance.
21	AVS2			Analog GND.
22	ADIO	I/O	Analog	Operational amplifier output.
23	RFDC	I		RF signal input.
24	CE	I		Center servo analog input.
25	TE	I		Tracking error signal input.
26	SE	I		Sled error signal input.
27	FE	I		Focus error signal input.
28	VC	I		Center voltage input.
29	VPCO	O	1, Z, 0	Wide-band EFM PLL VCO2 charge pump output.
30	VCTL	I		Wide-band EFM PLL VCO2 control voltage input.
31	FILO	O	Analog	Master PLL filter output (slave = digital PLL).
32	FILI	I		Master PLL filter input.
33	PCO	O	1, Z, 0	Master PLL charge pump output.
34	CLTV	I		Multiplier VCO control voltage input.
35	AVS1			Analog GND.
36	RFAC	I		EFM signal input.
37	BIAS	I		Asymmetry circuit constant current input.
38	ASYI	I		Asymmetry comparator voltage input.

BLOCK DIAGRAM



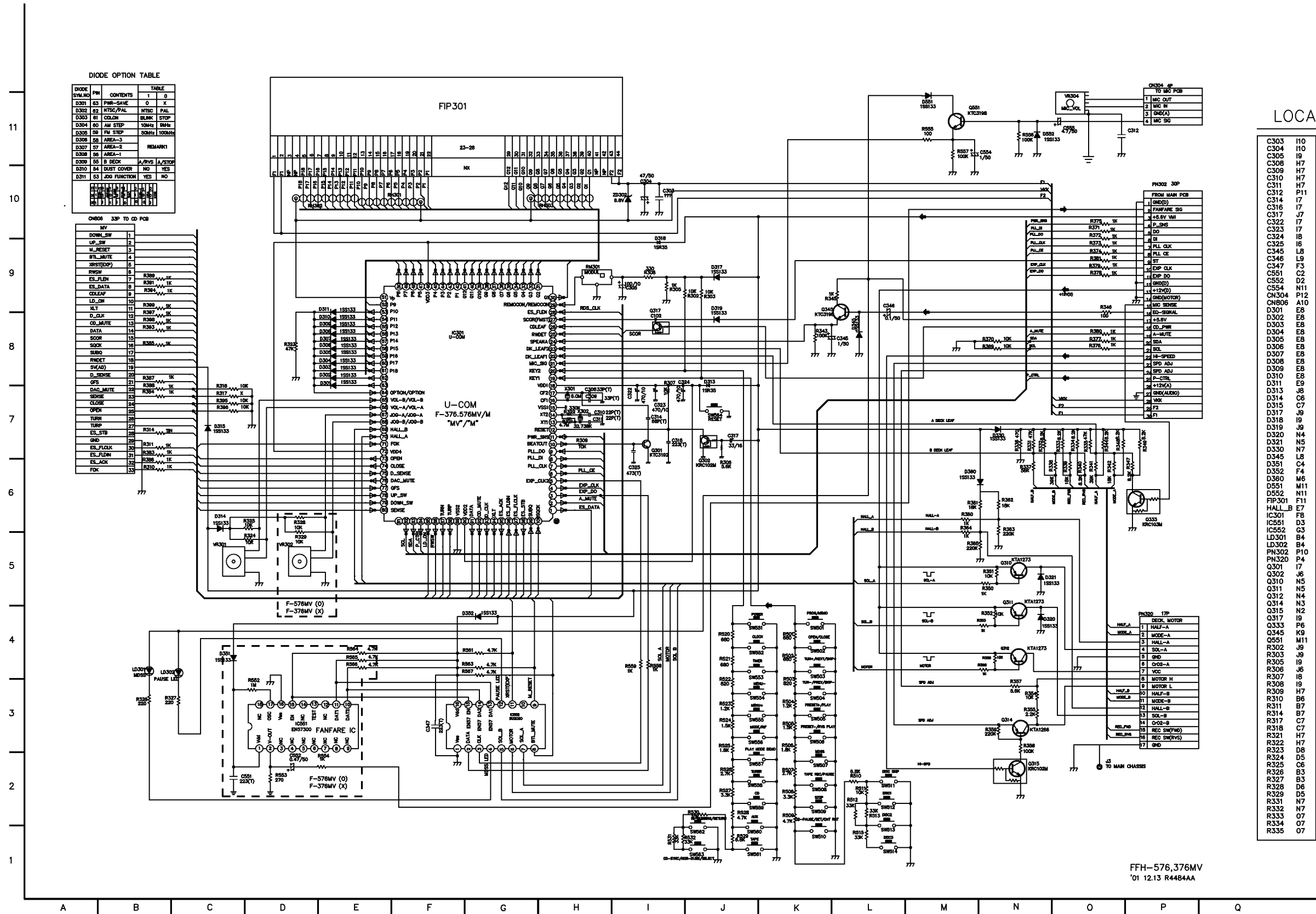
- **AMP/POWER SCHEMATIC DIAGRAM**



LOCATION INDEX GUIDE

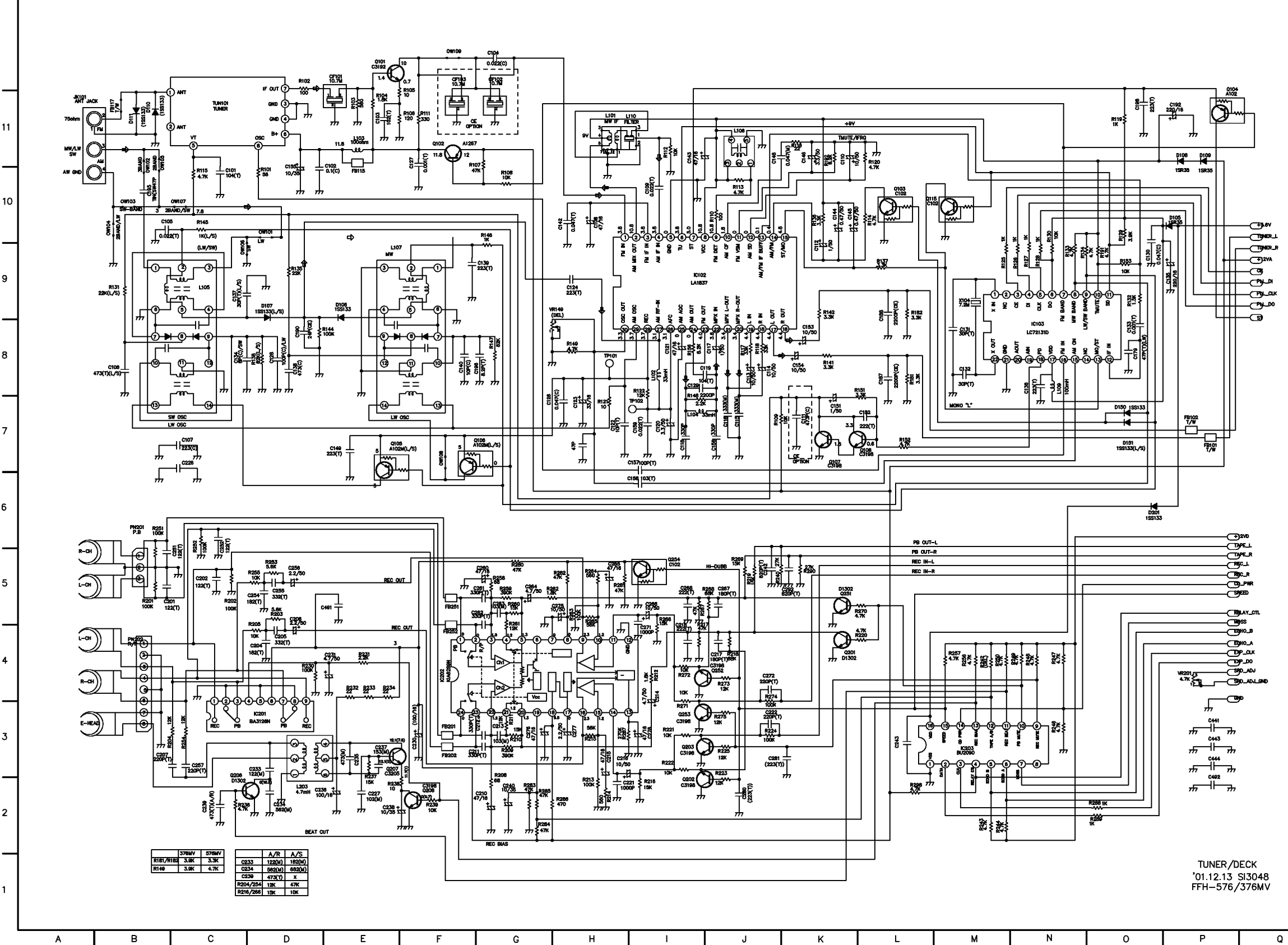
C701	B11	D705	L2	R748	P9
C702	B12	D706	L3	R749	K2
C703	K11	D707	I3	R751	C11
C704	J12	D708	I4	R752	C11
C705	H10	D709	F6	R753	I9
C706	M11	D710	F6	R754	I9
C708	H11	D711	B12	R755	J9
C709	G10	D712	B12	R756	J9
C710	B11	D713	H2	R757	L10
C711	E11	D714	G6	R758	M10
C712	E11	D715	O4	R759	J9
C713	E11	D716	H2	R760	J9
C714	E11	D717	F6	R761	P9
C715	E11	D720	K4	R762	H5
C716	E10	D721	H2	R763	E6
C717	E10	D742	N9	R764	E6
C718	E10	D743	N8	R765	E9
C719	E10	D757	J3	R766	E10
C720	E10	D758	J3	R767	E9
C721	E10	D789	I2	R768	K3
C722	E10	D781	I5	R769	K2
C723	E9	F701	H1	R770	K1
C724	E9	F701	Q4	R771	J2
C725	G9	F702	N4	R772	H1
C726	H10	F703	H4	R773	F5
C727	H10	F704	N3	R774	E5
C728	G11	F705	N3	R775	K2
C729	G11	F706	N3	R776	E5
C730	H3	F707	N3	R777	H4
C731	Q5	F702G	G2	R778	E4
C733	O4	B7704	P8	R779	E3
C734	B8	F703	H1	R780	F3
C735	K8	GND	B9	R781	F3
C737	P9	K701	K11	R782	H9
C738	P11	K702	G10	R783	H9
C739	J8	K703	G7	R784	E8
C741	N8	K704	G7	R785	F8
C742	K11	K705	H6	R786	E5
C743	K9	K706	H2	R787	G5
C744	N6	K708	G4	R788	G5
C745	J8	K751	K9	R789	F4
C746	B6	K709	G10	R790	G5
C747	O5	K702	A11	R791	G4
C748	P10	K703	P10	R792	G3
C749	L5	K704	P6	R794	I6
C750	O7	K705	P5	R795	E2
C751	B11	M055	A9	R797	D5
C752	J9	OW331	I1	R798	K8
C753	J9	OW331	I2	R799	K2
C754	J9	OW333	I2	SW701	Q4
C755	N10	OW334	I4	TM701	P3
C756	P5	OW335	I5	TM702	P3
C757	F7	OW551	L2	TD703	K2
C758	G7	OW552	I4	TD704	K1
C760	I6	OW553	G5		
C761	O7	OW554	P3		
C762	O7	OW720	P4		
C763	L5	OW730	Q3		
C764	N7	OW731	M4		
C765	K2	PN703	P4		
C766	M9	PN709	Q3		
C767	J2	Q701	I11		
C768	K1	Q702	I9		
C769	L2	Q704	K2		
C770	L2	Q741	O9		
C771	J4	Q742	H8		
C772	J3	Q751	I9		
C773	L4	Q782	F8		
C774	L4	Q783	F8		
C775	I3	Q785	E3		
C776	I3	Q786	F4		
C777	K4	Q787	F4		
C778	K4	R701	C11		
C779	N11	R702	C11		
C780	L8	R703	I11		
C781	E2	R704	I11		
C782	E4	R705	J1		
C783	E4	R706	J1		
C784	F5	R707	J12		
C785	F5	R708	J12		
C786	B6	R709	M11		
C787	H5	R710	M11		
C788	B7	R711	P9		
C789	H2	R712	G5		
C790	G5	R713	E6		
C791	B11	R714	E6		
C792	P6	R715	E9		
C793	I2	R716	E10		
C795	J2	R717	E10		
C796	G9	R718	H10		
C797	H9	R719	H10		
C798	B6	R720	H10		
C799	H6	R721	E9		
C910	J2	R722	E9		
C911	O9	R723	F5		
C912	G10	R724	F8		
C983	J9	R725	K8		
C975	J3	R726	F8		
C976	J3	R727	F8		
C985	E3	R733	N5		
C982	B5	R734	N5		
CN501	P8	R735	I6		
CN501	P8	R736	I6		
CN701	M4	R737	N4		
CN703	P4	R741	L8		
CN503	A5	R742	A8		
D701	G6	R744	P9		
D702	G6	R745	P9		
D703	L3	R746	P9		
D704		R747	P9		

• FRONT SCHEMATIC DIAGRAM



FFH-576.376MV
'01 12.13 R4484AA

• TUNER/DECK SCHEMATIC DIAGRAM



LOCATION GUIDE

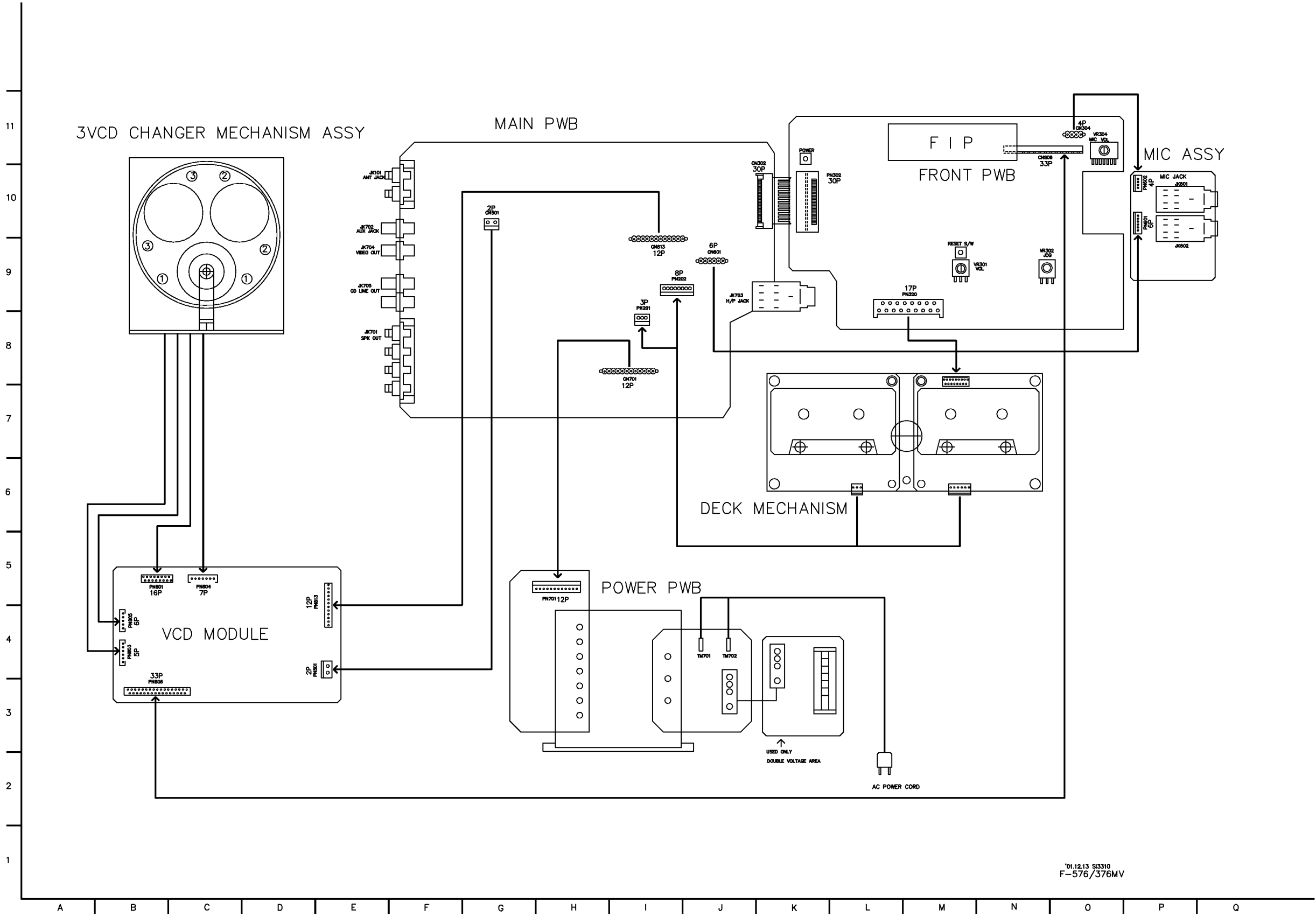
C101	C10	C277	H3	R141	K8
C102	E10	C278	I3	R142	K9
C103	E11	C280	J2	R143	D8
C104	G12	C281	J3	R144	D8
C105	B10	C292	K5	R146	G10
C106	B8	C441	P3	R147	G8
C107	C7	C443	P3	R148	I7
C108	H10	C444	P3	R149	H8
C109	I10	C491	D5	R151	K8
C110	K11	C520	E22	R152	L7
C111	K7	CF102	G12	R153	O9
C112	K9	CF103	F12	R156	I8
C113	J8	D105	P10	R181	G3
C114	J8	D106	E9	R182	L9
C115	J7	D107	D9	R191	O9
C116	J7	D108	P11	R192	K11
C117	J8	D109	P11	R201	B5
C118	I7	D110	B11	R202	C5
C119	I8	D111	B11	R203	D5
C120	I7	D150	O7	R204	C3
C121	I8	D151	O7	R205	D4
C122	H7	D201	D6	R208	G3
C123	H7	FB101	P7	R209	G3
C124	H9	FB102	P7	R210	G3
C125	G7	FB115	E10	R211	G3
C126	F10	FB117	B11	R212	I4
C127	D6	FB201	F4	R213	H2
C128	I8	FB202	F3	R214	H2
C129	I8	FB251	F5	R215	H3
C130	O9	FB252	F4	R216	I2
C131	M8	FB253	F4	R217	I4
C132	M8	IC102	I8	R218	J4
C133	O8	IC103	N8	R219	J4
C134	C8	IC201	D3	R220	J5
C135	P9	IC202	F4	R221	K4
C136	N8	IC203	M3	R222	I3
C137	C9	JK101	A11	R223	I3
C138	D8	L101	H11	R224	J3
C139	O9	L102	I8	R225	J3
C140	F8	L103	E11	R226	D4
C141	H10	L104	I7	R227	E4
C142	H10	L105	O9	R228	E4
C143	I11	L106	J11	R229	C2
C144	K10	L107	E9	R230	C2
C145	K10	L108	N8	R231	C2
C146	K11	L109	H11	R232	C2
C147	J11	L110	H11	R233	C2
C148	J11	L203	D2	R234	C2
C149	E7	L204	D2	R235	C2
C150	K7	M205	F2	R236	C2
C151	L7	OW101	D10	R237	C2
C152	L7	OW102	B10	R238	C2
C153	K8	OW103	B10	R239	C2
C154	K8	OW104	B10	R240	C2
C155	D10	OW105	B10	R241	C2
C156	J7	OW106	B10	R242	C2
C157	H7	OW107	C10	R243	C2
C158	H6	OW108	F7	R244	C2
C159	I7	OW109	F12	R245	C2
C160	O8	OW110	F12	R246	C2
C161	L8	PN201	B6	R247	C2
C162	L8	PN202	B4	R248	C2
C163	D8	Q101	E12	R249	C2
C164	P11	Q102	F11	R250	C2
C165	B10	Q103	L10	R251	C2
C166	G8	Q104	P11	R252	C2
C167	O11	Q105	E7	R253	C2
C168	B5	Q106	F7	R254	C2
C169	D5	Q107	K7	R255	C2
C170	D4	Q108	L7	R256	C2
C171	D4	Q109	L7	R257	C2
C172	D5	Q110	L7	R258	C2
C173	B3	Q201	K4	R259	C2
C174	G2	Q202	I2	R260	C2
C175	G2	Q203	I3	R261	C2
C176	F3	Q204	C3	R262	C2
C177	G3	Q205	E3	R263	C2
C178	G3	Q206	F2	R264	C2
C179	I3	Q207	K5	R265	C2
C180	H3	Q208	J4	R266	C2
C181	H3	Q209	I3	R267	C2
C182	J4	Q210	I5	R268	C2
C183	I4	Q211	I5	R269	C2
C184	H2	Q212	D12	R270	C2
C185	J3	Q213	E11	R271	C2
C186	C7	Q214	E11	R272	C2
C187	E2	Q215	F11	R273	C2
C188	F3	Q216	F11	R274	C2
C189	E4	Q217	F11	R275	C2
C190	D3	Q218	F11	R276	C2
C191	D3	Q219	F11	R277	C2
C192	D2	Q220	G10	R278	C2
C193	D2	Q221	J7	R279	C2
C194	D2	Q222	J10	R280	C2
C195	D2	Q223	J10	R281	C2
C196	D2	Q224	J10	R282	C2
C197	D2	Q225	J10	R283	C2
C198	D2	Q226	J10	R284	C2
C199	D2	Q227	J10	R285	C2
C200	D2	Q228	J10	R286	C2
C201	D2	Q229	J10	R287	C2
C202	D2	Q230	J10	R288	C2
C203	D2	Q231	J10	R289	C2
C204	D2	Q232	J10	R290	C2
C205	D2	Q233	J10	R291	C2
C206	D2	Q234	J10	R292	C2
C207	D2	Q235	J10	R293	C2
C208	D2	Q236	J10	R294	C2
C209	D2	Q237	J10	R295	C2
C210	D2	Q238	J10	R296	C2
C211	D2	Q239	J10	R297	C2
C212	D2	Q240	J10	R298	C2
C213	D2	Q241	J10	R299	C2
C214	D2	Q242	J10	R300	C2
C215	D2	Q243	J10	R301	C2
C216	D2	Q244	J10	R302	C2
C217	D2	Q245	J10	R303	C2
C218	D2	Q246	J10	R304	C2
C219	D2	Q247	J10	R305	C2
C220	D2	Q248	J10	R306	C2
C221	D2	Q249	J10	R307	C2
C222	D2	Q250	J10	R308	C2
C223	D2	Q251	J10	R309	C2
C224	D2	Q252	J10	R310	C2
C225	D2	Q253	J10	R311	C2
C226	D2	Q254	J10	R312	C2
C227	D2	Q255	J10	R313	C2
C228	D2	Q256	J10	R314	C2
C229	D2	Q257	J10	R315	C2
C230	D2	Q258	J10	R316	C2
C231	D2	Q259	J10	R317	C2
C232	D2	Q260	J10	R318	C2
C233	D2	Q261	J10	R319	C2
C234	D2	Q262	J10	R320	C2
C235	D2	Q263	J10	R321	C2
C236	D2	Q264	J10	R322	C2
C237	D2	Q265	J10	R323	C2
C238	D2	Q266	J10	R324	C2
C239	D2	Q267	J10	R325	C2
C240	D2	Q268	J10	R326	C2
C241	D2	Q269	J10	R327	C2
C242	D2	Q270	J10	R328	C2
C243	D2	Q271	J10	R329	C2
C244	D2	Q272	J10	R330	C2
C245	D2	Q273	J10	R331	C2
C246	D2	Q274	J10	R332	C2
C247	D2	Q275	J10	R333	C2
C248	D2	Q276	J10	R334	C2
C249	D2	Q277	J10	R335	C2
C250	D2	Q278	J10	R336	C2
C251	D2	Q279	J10	R337	C2
C252	D2	Q280	J10	R338	C2
C253	D2	Q281	J10	R339	C2
C254	D2	Q282	J10	R340	C2
C255	D2	Q283	J10	R341	C2
C256	D2	Q284	J10	R342	C2
C257	D2	Q285	J10	R343	C2
C258	D2	Q286	J10	R344	C2
C259	D2	Q287	J10	R345	C2
C260	D2	Q288	J10	R346	C2
C261	D2	Q289	J10	R347	C2
C262	D2	Q290	J10	R348	C2
C263	D2	Q291	J10	R349	C2
C264	D2	Q292	J10	R350	C2
C265	D2	Q293	J10	R351	C2
C266	D2	Q294	J10	R352	C2
C267	D2	Q295	J10	R353	C2
C268	D2	Q296	J10	R354	C2
C269	D2	Q297	J10	R355	C2
C270	D2	Q298	J10	R356	C2
C271	D2	Q299	J10	R357	C2
C272	D2	Q300	J10	R358	C2
C273	D2	Q301	J10	R359	C2
C274	D2	Q302	J10	R360	C2
C275	D2	Q303	J10	R361	C2
C276	D2	Q304	J10	R362	C2

TUNER/DECK
01.12.13 SI3048
FFH-576/376MV

01.12.21 SI3039/PR4476AA
F-376MV/576MV/876MV
MPEG MAIN

C501	C11	C863	K2	R541	E5	R862	P3
C502	C10	C867	J1	R542	C2	R871	P7
C503	C10	C868	O3	R543	C2	R872	P6
C504	C10	C869	P4	R544	C3	R873	P6
C505	C10	C870	L7	R545	C3	R874	P6
C506	B10	C871	L7	R546	O3	X531	F9
C507	C8	C872	O3	R547	C2	X801	L11
C508	C8	C873	P2	R548	C2	Z501	C7
C509	E8	C874	P2	R549	D2	Z502	D4
C510	D9	C875	P2	R550	E2	Z503	C7
C511	C8	C876	P2	R551	C4	Z504	P3
C513	E8	C877	K3	R552	C2	D061	P3
C514	F11	C878	O3	R553	O3		
C520	D8	C879	O3	R554	O3		
C521	D7	C880	K2	R555	O3		
C522	D7	C881	O3	R556	O3		
C523	E9	C882	I3	R560	F9		
C524	F3	C883	G3	R561	F10		
C525	F4	C884	J7	R562	F8		
C530	C4	C885	J8	R563	F8		
C531	E3	C886	J9	R564	F8		
C532	F9	C887	M0	R565	F7		
C542	F9	C888	G3	R566	F7		
C543	G7	C501	D9	R567	O7		
C544	F7	C502	E8	R568	F9		
C545	G7	C503	D6	R569	H7		
C547	G7	C504	G11	R571	O7		
C549	G7	C505	H11	R572	H7		
C551	G7	C506	M10	R573	H7		
C552	H7	C802	M5	R574	H7		
C553	H7	C803	M3	R575	H7		
C554	H6	C804	M1	R576	H7		
C555	H7	C806	H4	R577	I7		
C556	H7	L831	O11	R578	I7		
C557	I11	L832	M11	R579	I7		
C558	H6	L835	P11	R582	I7		
C561	H6	P501	O11	R583	I7		
C562	J7	P801	B10	R585	J9		
C563	G11	P803	B5	R586	J9		
C564	J9	P804	B3	R587	F11		
C565	J7	P805	B3	R588	F11		
C566	F11	P806	K1	R591	F11		
C567	E5	P807	B5	R802	H4		
C568	G11	P813	F1	R803	H5		
C569	G3	Q501	C11	R804	C5		
C570	H4	Q502	C8	R805	C8		
C801	H5	Q801	G6	R806	H4		
C802	H5	Q802	G5	R808	H5		
C803	H5	Q803	H6	R809	H5		
C804	H5	Q804	I5	R810	I5		
C805	H3	Q861	P4	R811	H5		
C806	H4	R501	C11	R812	C5		
C807	H4	R502	B10	R813	G3		
C809	H3	R503	B10	R814	F5		
C810	G5	R505	C8	R815	F4		
C811	G5	R506	C8	R816	F3		
C812	G4	R507	E11	R817	F4		
C813	G5	R508	E10	R818	G6		
C814	E11	R509	E10	R819	G5		
C818	G3	R511	C11	R823	O3		
C831	L8	R512	E10	R822	H4		
C832	J8	R513	E11	R823	O3		
C833	P9	R514	C11	R824	O3		
C834	P9	R515	E11	R826	H3		
C835	P9	R516	E11	R834	M7		
C836	L8	R517	C11	R835	M7		
C837	P9	R518	F11	R836	N8		
C841	P8	R519	E10	R837	N7		
C842	P11	R521	E9	R838	N7		
C843	P11	R522	E8	R839	N6		
C846	P11	R523	E8	R840	M7		
C847	P11	R530	D6	R841	O9		
C848	P11	R531	E7	R842	O8		
C849	N11	R532	D				

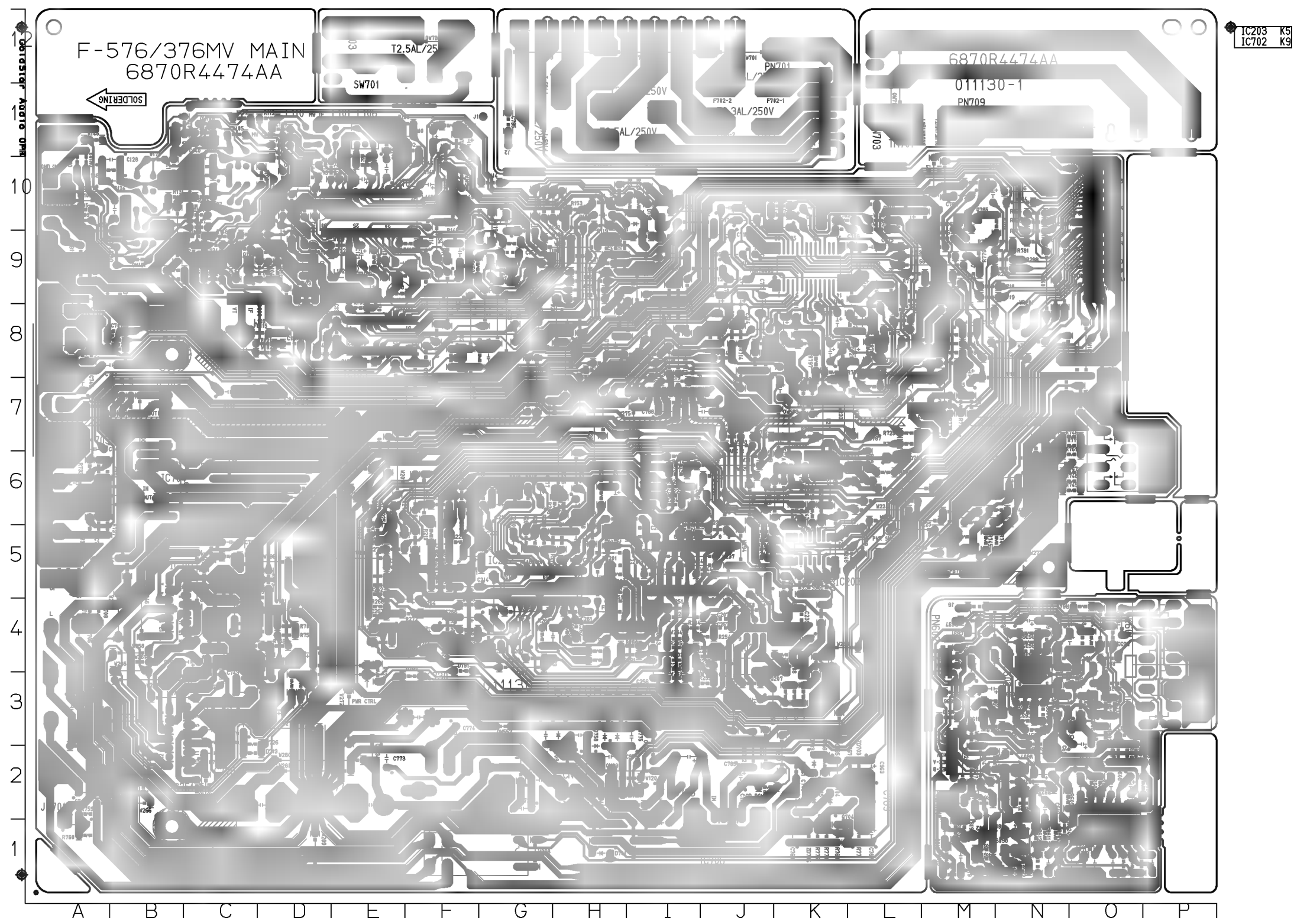
• OVERALL BLOCK DIAGRAM



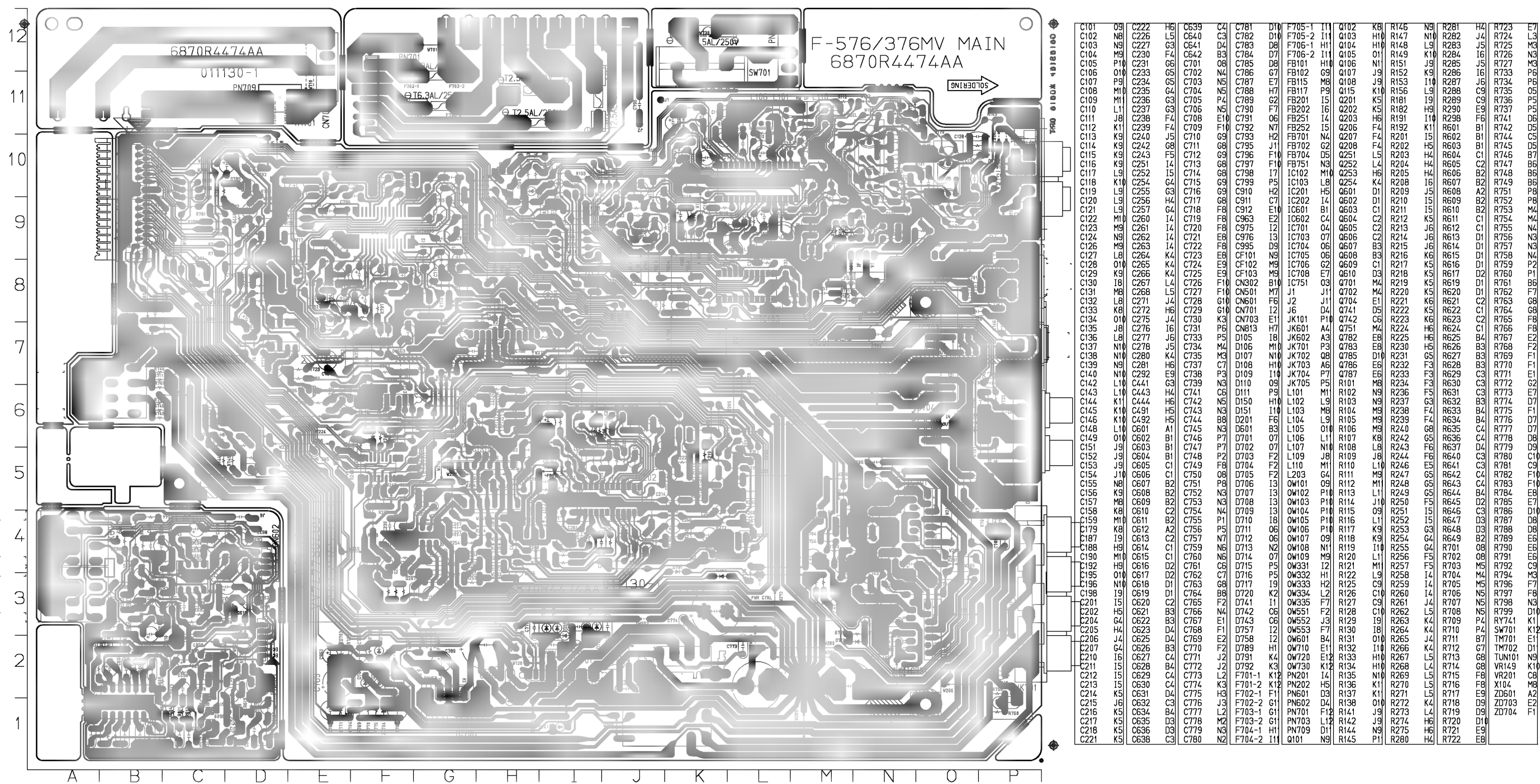
'01.12.13 93310
F-576/376MV

PRINTED CIRCUIT DIAGRAMS

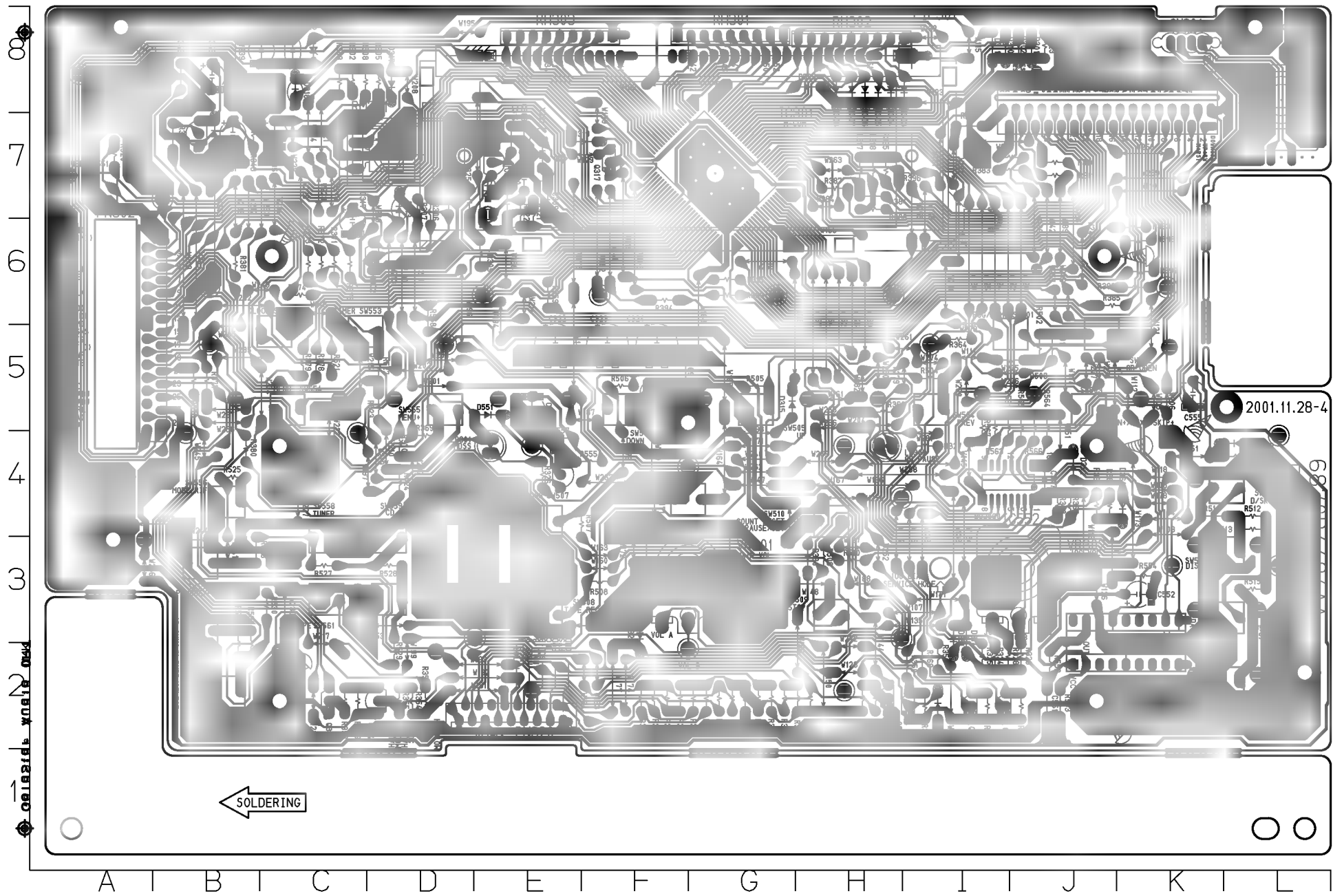
- AMP/TUNER/POWER/DECK P.C. BOARD(SOLDER SIDE)



• AMP/TUNER/POWER/DECK P.C. BOARD(COMPONENT SIDE)

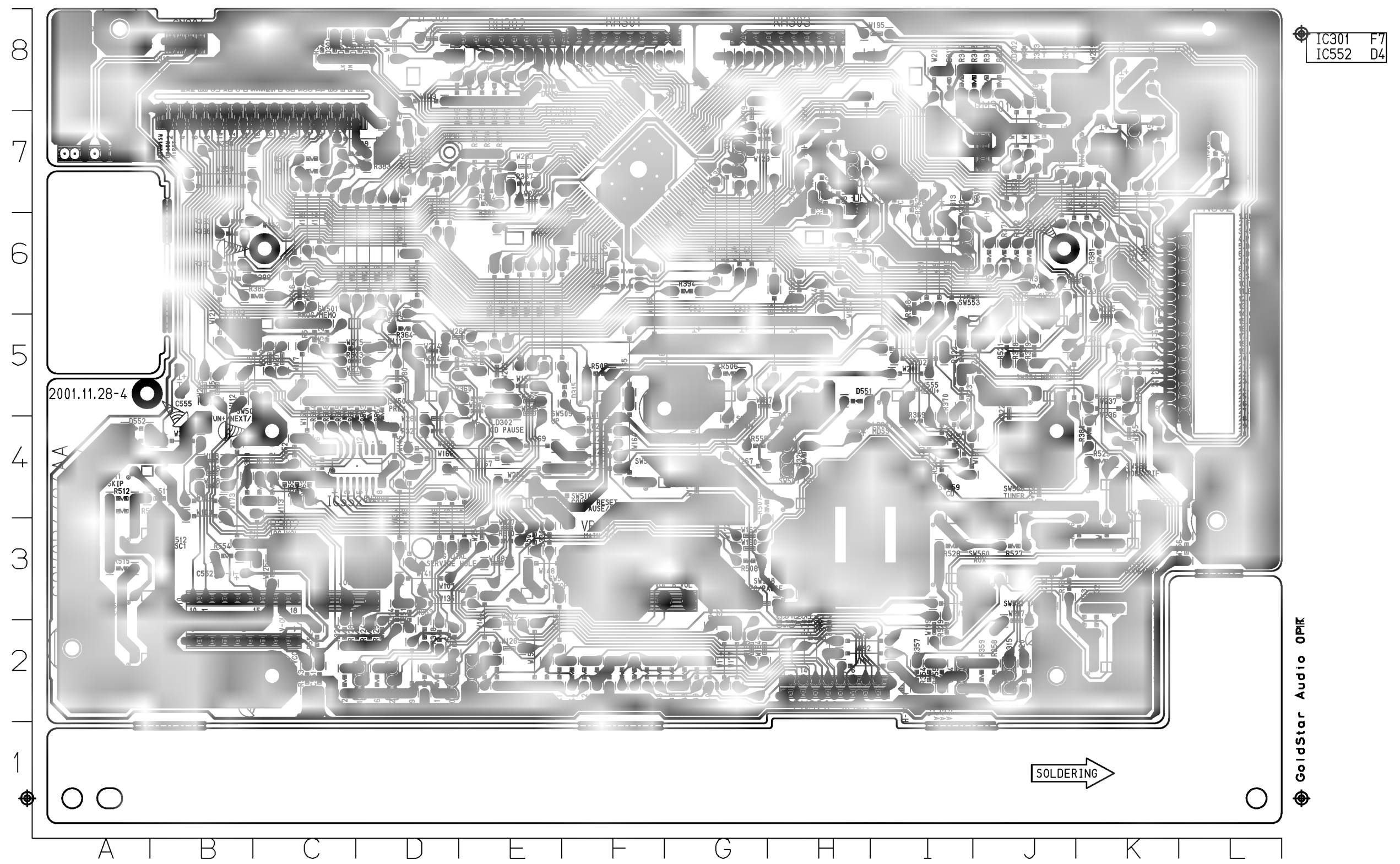


• FRONT P.C. BOARD(COMPONENT SIDE)



C303	C8	D360	K4	R336	G2	R386	J7	R561	I5
C304	C8	D551	E5	R337	G2	R387	H7	R563	I5
C305	C7	D552	L4	R338	F2	R388	H7	R564	J5
C308	E7	FIP301	I8	R339	F2	R389	G6	R565	J5
C309	E7	IC551	J2	R340	F2	R391	G6	R566	J5
C310	E7	J3	L2	R341	H2	R393	K6	R567	I5
C311	E7	LD301	E4	R342	G2	R394	F6	RH301	F8
C312	K8	LD302	H4	R343	B7	R395	H7	RH302	I8
C314	E7	PN302	A5	R344	G2	R396	I7	RH303	F8
C316	D7	PN320	D2	R345	B7	R397	K6	RM301	D7
C317	C6	Q301	E7	R346	B8	R398	K6	SW501	J5
C322	E5	Q302	D6	R347	H2	R399	K6	SW502	J5
C323	F5	Q310	I2	R348	G2	R501	J5	SW503	J5
C324	F5	Q311	I2	R349	H2	R502	J5	SW504	I5
C325	D7	Q312	I2	R350	I2	R503	J5	SW505	G5
C345	B7	Q314	D2	R351	I2	R504	I5	SW506	F5
C346	B8	Q315	C2	R352	J2	R505	G5	SW507	E4
C347	J4	Q317	F7	R353	I2	R506	F5	SW508	E3
C551	J2	Q333	H2	R354	D2	R507	F4	SW509	H3
C552	K3	Q345	B7	R355	D2	R508	F3	SW510	H4
C554	E5	Q551	E4	R356	I2	R509	H3	SW511	L4
C555	K5	R302	C8	R357	D2	R510	H3	SW512	L3
CN304	K8	R303	C8	R358	C2	R511	K4	SW513	L3
CN806	K8	R305	D8	R359	C2	R512	L4	SW514	L2
D301	J8	R306	D7	R360	H5	R513	L4	SW551	A7
D302	J8	R307	D7	R361	J4	R515	L3	SW552	C5
D303	I8	R308	C8	R362	J4	R520	A7	SW553	C5
D304	H8	R309	E6	R363	J4	R521	C5	SW554	C5
D305	H8	R310	I7	R364	I5	R522	D5	SW555	D5
D306	H8	R311	J7	R365	J4	R523	D5	SW556	B4
D307	H8	R314	J7	R368	I2	R524	D4	SW557	B3
D308	H8	R317	H7	R369	D4	R525	B4	SW558	C3
D309	H8	R318	H7	R370	D4	R526	B3	SW559	D3
D310	I8	R321	E7	R371	C6	R527	C3	SW560	D3
D311	I8	R322	E7	R372	C6	R528	D3	SW561	C3
D313	D7	R323	J8	R373	C6	R529	D2	SW562	B2
D314	I3	R324	I2	R374	C6	R530	C3	SW563	B3
D315	G5	R325	I2	R375	C6	R531	B2	SW564	F4
D317	D8	R326	E4	R376	B5	R532	B2	VR301	F3
D318	C8	R327	I4	R377	B5	R552	J2	VR302	J3
D319	F7	R328	I2	R378	C5	R553	J2	VR304	L8
D320	F3	R329	J2	R379	C5	R554	K3	X301	E7
D321	I2	R331	G2	R380	B4	R555	F4	X302	E7
D330	H3	R332	F2	R381	B6	R556	L4	ZD302	C8
D345	B7	R333	G2	R383	J7	R557	E4		
D351	I3	R334	G2	R384	H7	R558	D6		
D352	J4	R335	H2	R385	J6	R559	E6		

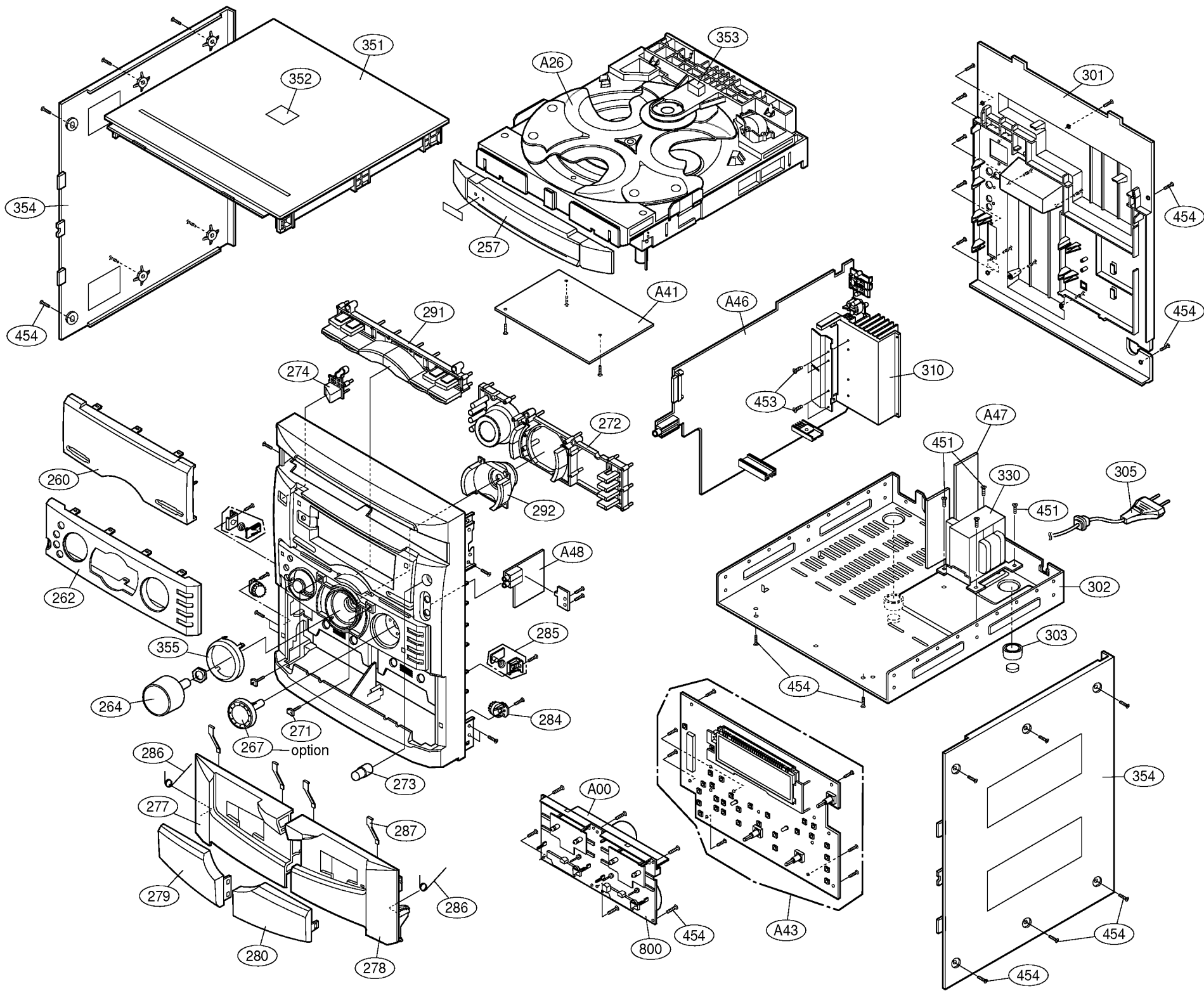
• FRONT P.C. BOARD(SOLDER SIDE)



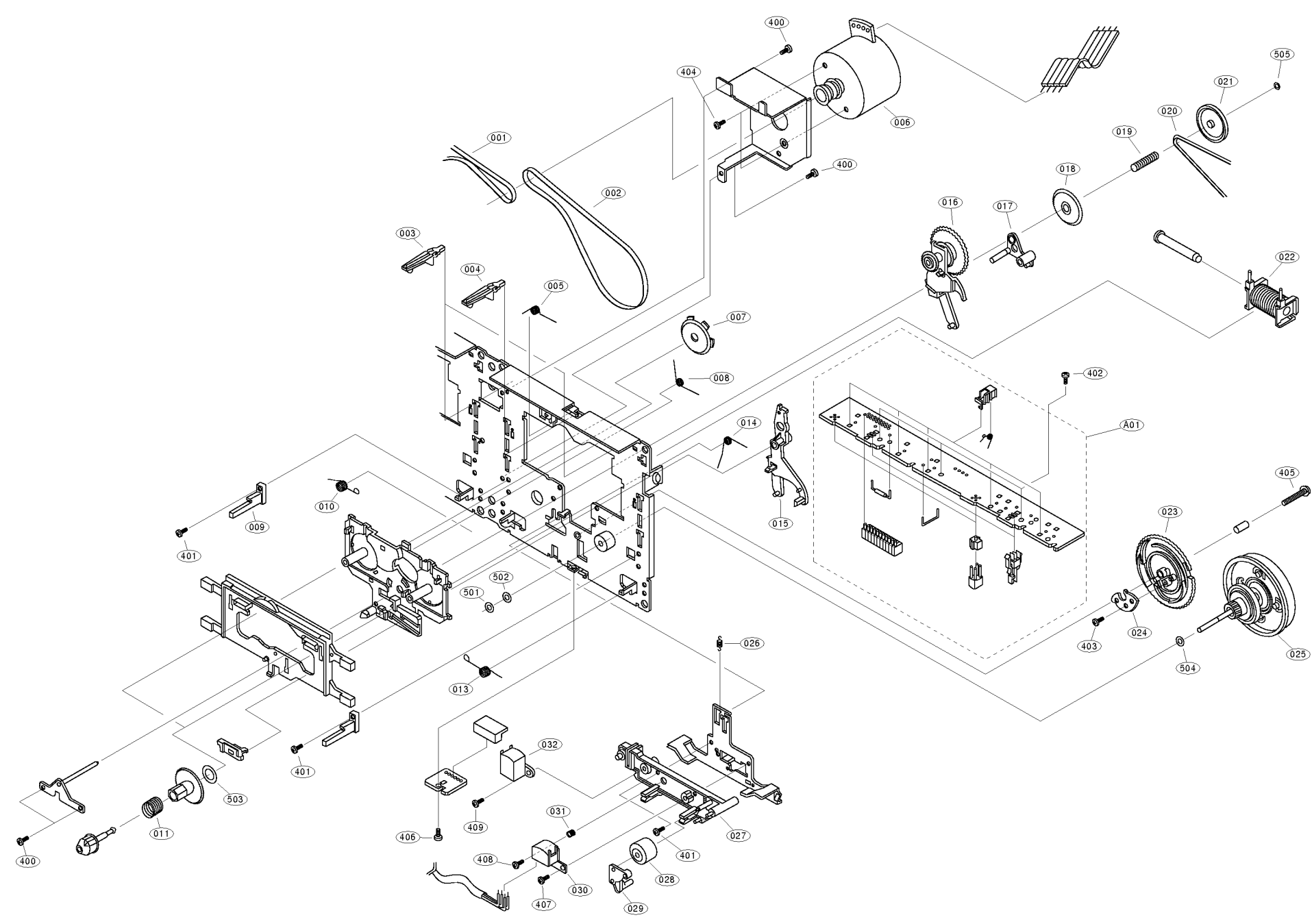
SECTION 3. EXPLODED VIEWS

• CABINET AND MAIN FRAME SECTION

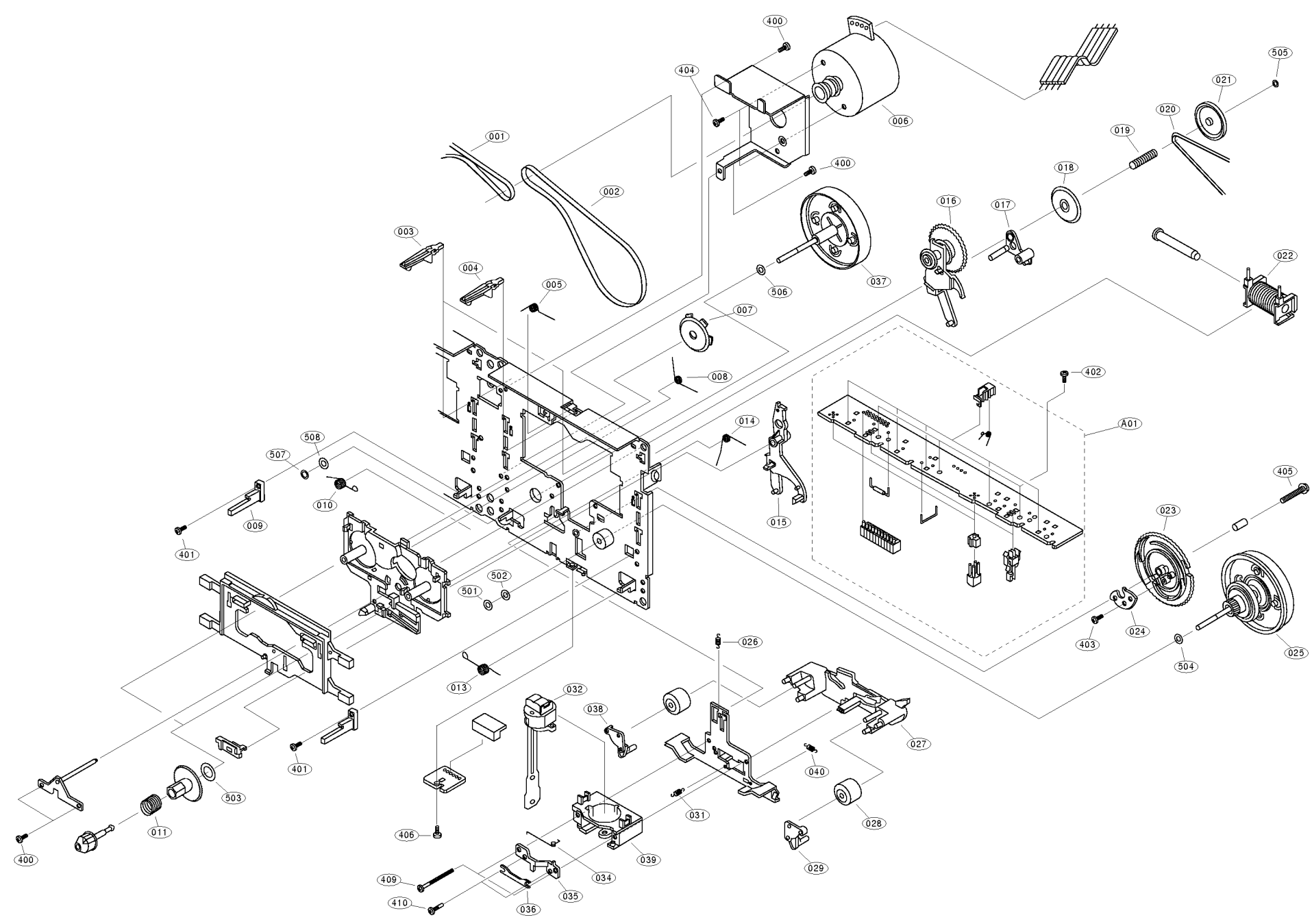
NOTE) Refer to "SECTION 5 REPLACEMENT PARTS LIST" in order to look for the part number of each part.



• TAPE DECK MECHANISM: AUTO STOP DECK(OPTIONAL)



• TAPE DECK MECHANISM: AUTO REVERSE DECK



• CD MECHANISM

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

