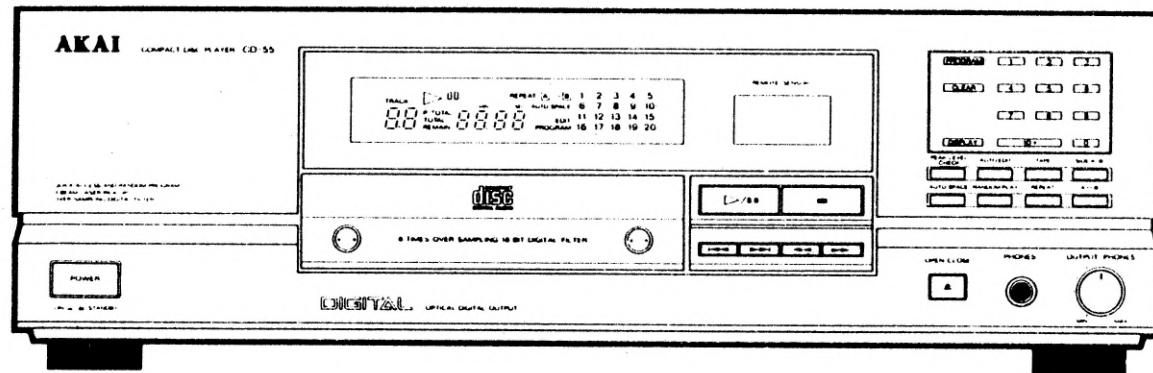


AKAI SERVICE MANUAL



The logo consists of the words "COMPACT DISC DIGITAL AUDIO" in a bold, sans-serif font. The word "DISC" is written in a larger, more prominent size than the other words.

COMPACT DISC PLAYER

MODEL CD-55

SPECIFICATIONS

Pick-up system	3 beam laser pick-up
Sampling frequency	44.1kHz
Digital filter	18 bit,8 times over sampling
D/A converter	16 bit linear
Error correction system	Cross Interleave Reed Solomon
Number of channels	2 channels stereo
Frequency response	4Hz to 20kHz ± 0.5dB
Dynamic range	96dB
S/N ratio	108dB
Total harmonic distortion	0.0028%
Wow & flutter	Less than measurable limits
Output level	
Analog output (line)	2V(0dB)
Digital output (coaxial)	0.5V p-p/750ohms
(optical)	-22dBm, wave length 660nm
Headphone output	70mW/32ohms
Power requirements	220V, 50Hz for Europe except UK 240V, 50Hz for UK and Australia 110V-120V/220V-240V, 50Hz/60Hz convertible for other countries
Dimensions	425(W) × 141(H) × 34.3(D)mm (16.7 × 5.6 × 13.5 inches)
Weight	4.2kg (7.9 lbs)

Standard accessories

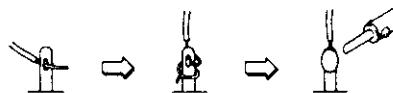
Connection cord	x1
Remote control unit	x1
Batteries for the remote control unit	x2
Operator's manual	x1

* For improvement purposes, specifications and design are subject to change without notice.

★ SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts identified by the ***** symbol are critical for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
3. Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
 - 1) Wires covered with PVC tubing
 - 2) Double insulated wires
 - 3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
 - 1) Insulation Tape
 - 2) PVC tubing
 - 3) Spacers (Insulating Barriers)
 - 4) Insulation sheets for transistors
 - 5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).

★ INFORMATION

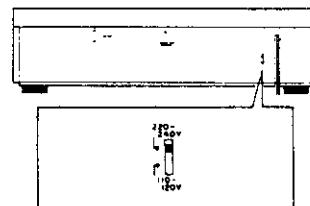
SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

Symbols	Principal Destinations
A	USA
B	UK
C	Canada
E	Europe (except UK)
J	Japan
S	Australia
V	W. Germany only
U	Universal Area
X*	Custom version

VOLTAGE CONVERSION (■ Model only)

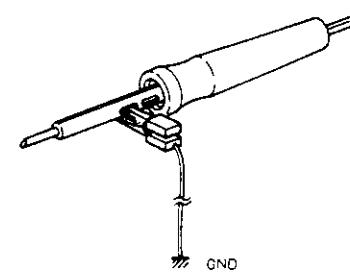
Before connecting the power cord. Set the VOLTAGE SELECTOR located on the rear panel with a screwdriver so that the correct voltage is indicated.



PRECAUTIONS IN REPAIRING

When repairing or adjusting the unit, please note the following points.

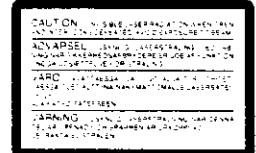
1. Do not put excessive pressure on the mechanical part (operation part), including the pick-up block, as extremely high mechanical precision is required in these parts.
2. When the base is removed for repair or adjustment, make sure that there are no metal objects in the narrow gap between the P.C. board or the mecha parts and the base.
3. The Micro-Computer and the CD signal processing ICs can be damaged by static electricity or leakage from a soldering iron during repairing. While soldering, please take the precautions against leakage as in the illustration.



{DENMARK, UK, USA}

CLASS 1 LASER PRODUCT

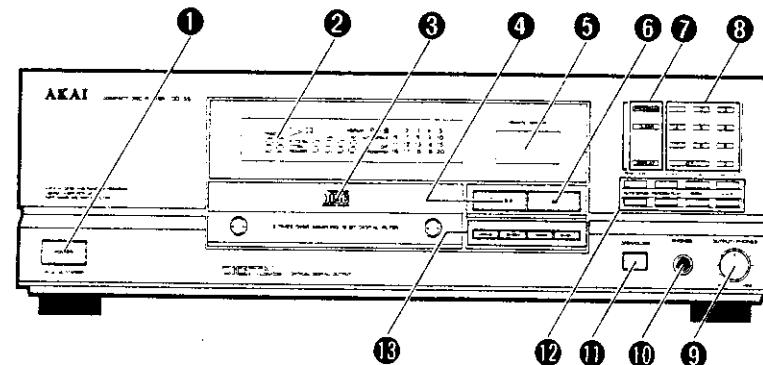
A Label affixed on the unit



A Label affixed inside of the unit

I. CONTROLS

1-1. FRONT PANEL



**① POWER Button
(ON \rightarrow /STANDBY \leftarrow)**

To turn the power on and off.
Attention

The POWER button is not a primary power switch. Even when the POWER button is set to STANDBY \leftarrow , the power supply to this CD player is not completely turned off. If you wish to completely turn the power off, disconnect the power cord from the house-hold AC outlet.

② FL (Fluorescent) Display

Tells you what the CD player is doing.

③ Disc Drawer

Load a compact disc here.

④ ■/PLAY/PAUSE Button

To start and stop playback temporarily.

⑤ REMOTE SENSOR Window

For reception of the remote control signal from the provided remote control unit RC-C55.

Keep away from strong light and direct sunlight as this will interfere with the remote control function.

⑥ ■ Button

To stop playback.

⑦ PROGRAM Button

To set the CD player to the random program mode.

CLEAR Button

To cancel all programmed tracks of the random program or the automatic edited program.

DISPLAY button

To display the total elapsed playback time or total remaining playback time on the digital display.

⑧ Numeric Buttons (1 to 0, +10)

For direct search of the track you wish to play back and for programming for random program playback.

⑨ OUTPUT/PHONES Level Control

To adjust the PHONES jack output and VARIABLE OUTPUT jacks levels.

⑩ PHONES Jack

For headphone listening.

⑪ ▲ OPEN/CLOSE Button

To open and close the disc drawer.

⑫ PEAK LEVEL CHECK Button

To search for the highest recorded level on the loaded CD.

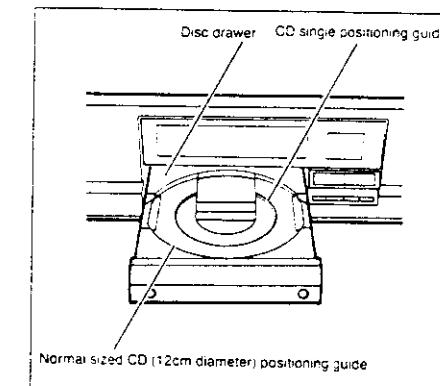
⑬ \blacktriangleleft / \triangleright and $\blacktriangleleft\blacktriangleleft$ / $\triangleright\triangleright$ Buttons

\blacktriangleleft / \triangleright Buttons
For manual search during playback.

$\blacktriangleleft\blacktriangleleft$ / $\triangleright\triangleright$ Buttons
To skip tracks during playback.

On the disc drawer

The disc drawer of this CD player is capable of holding a CD single (8cm diameter CD) for playback. Place the CD single on the center of the disc drawer as shown in the following illustration.



Normal sized CD (12cm diameter) positioning guide

1-2. FL DISPLAY

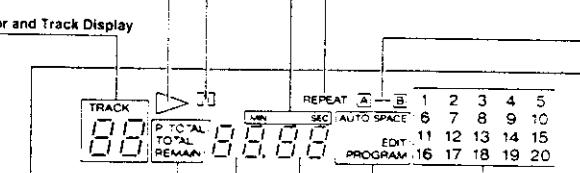
Pause Indicator

Play Indicator

TRACK Indicator and Track Display

REPEAT Indicator

$\overline{A} - \overline{B}$ Indicator



**Display Mode Indicators
(P.TOTAL/TOTAL/REMAIN)**

Music calendar (1 ~ 20)

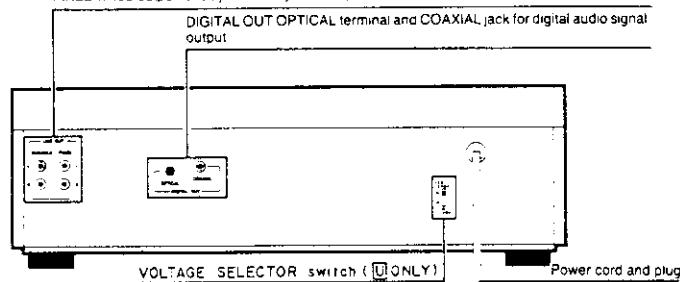
Digital Display

EDIT PROGRAM Indicator

1-3. REAR PANEL

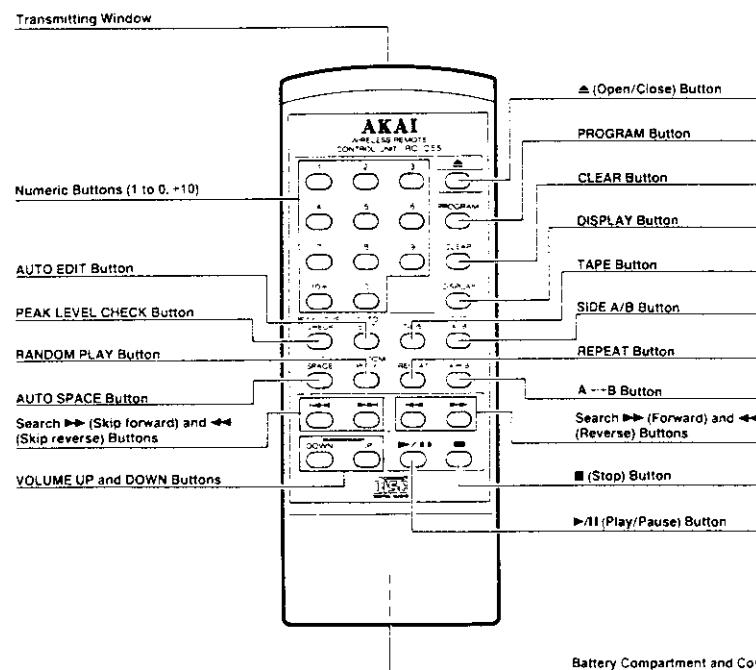
LINE OUT jacks for audio signal output.
VARIABLE (variable output level) jacks: Playback output levels are controlled by the OUTPUT/PHONES control and the UP or DOWN button on the provided remote control unit.

FIXED (fixed output level) jacks: Playback output levels are fixed at the specific output levels.



1-4. REMOTE CONTROL (RC-55)

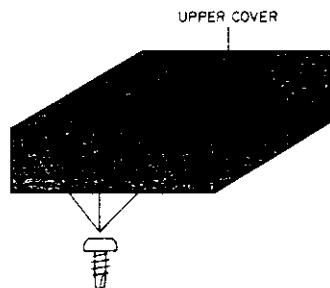
The operation buttons on the remote control unit are the same as those on the CD player and can be used to conveniently control all the CD player's functions except power on/off.



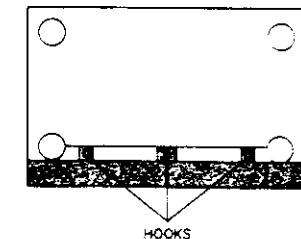
II. DISASSEMBLY

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the illustrations. Reassemble in reverse order.

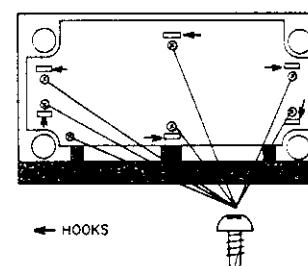
1. Removal of UPPER COVER



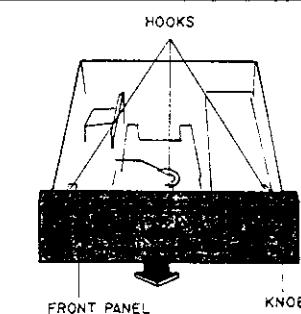
3. Removal of FRONT PANEL



2. Removal of BOTTOM PLATE



4.



III. PRINCIPAL PARTS LOCATION

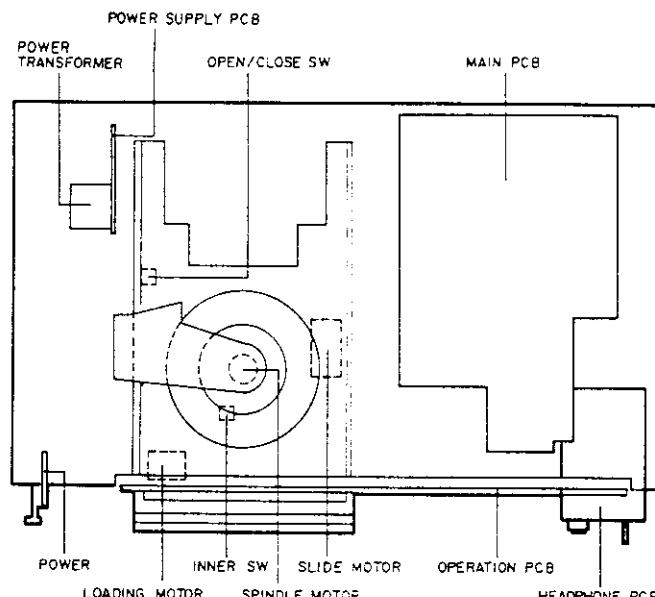


Fig. 3-1

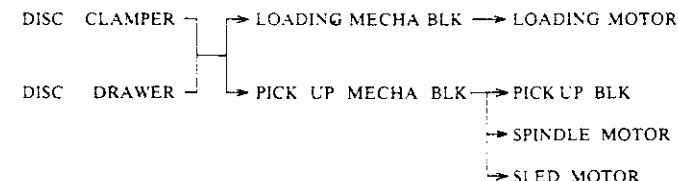
IV. REPLACEMENT OF PRINCIPAL COMPONENT

- Refer to "II. DISASSEMBLY" for removal of UPPER COVER, BOTTOM PLATE and FRONT PANEL.

4-1. DISASSEMBLE/REASSEMBLE PROCEDURE OF COMPONENT

- When replacement of mechanical part is necessary, replace the part as following procedure.

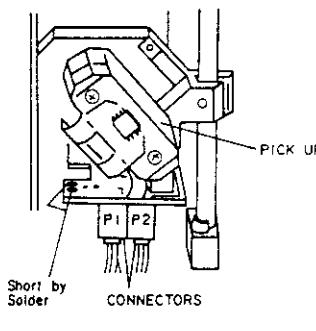
STEP 1	STEP 2	STEP 3
--------	--------	--------



4-2. PRECAUTION, WHEN REPLACING THE PICK UP BLOCK

When connecting or disconnecting the connectors P1 and P2 on the MAIN PCB or PCB on the PICK UP BLK, the circuit of the PCB on the PICK UP BLK has to be shorted by solder as shown Fig.4-1.

After connecting the connectors P1 and P2, remove the solder from the circuit.



* View from bottom side.

Fig.4-1

4-3. REMOVAL OF DISC CLAMPER

NOTE: Keep your safety from hazardous invisible laser radiation. Make sure that the POWER switch is "OFF" when removing the DISC CLAMPER.

- Remove DISC CLAMPER while releasing the HOOKS as shown Fig.4-2.
- When reassembling the DISC CLAMPER, set the PIN **A** at the DISC CLAMPER into the HOLE **B** on the LOADING MOTOR BLK.

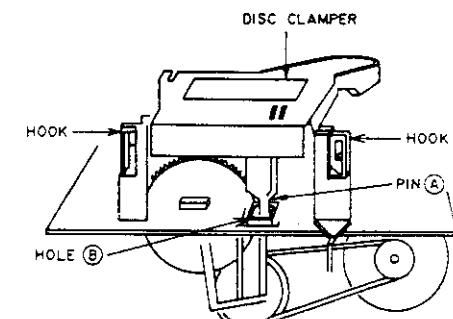
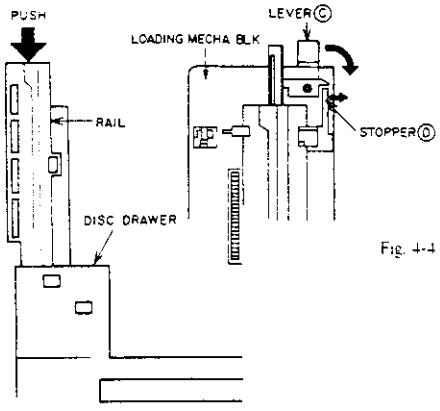


Fig.4-2

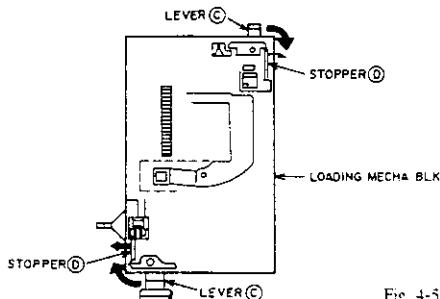
4-4. REMOVAL OF DISC DRAWER

- 1) Push the end of rail on the DISC DRAWER and set the DISC DRAWER to open position.
- 2) Turn the LEVER C while releasing the STOPPER D as shown Fig.4-4, and pull out the DISC DRAWER.
- 3) Reassemble in reverse order.



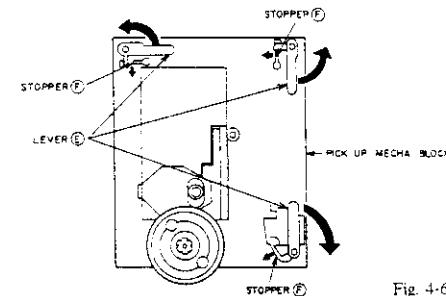
4-5. REMOVAL OF LOADING MECHA BLOCK

- 1) Turn the LEVERS E while releasing the STOPPERS F as shown Fig.4-5.
- 2) Pull out the LOADING MECHA BLK.
- 3) Reassemble in reverse order.



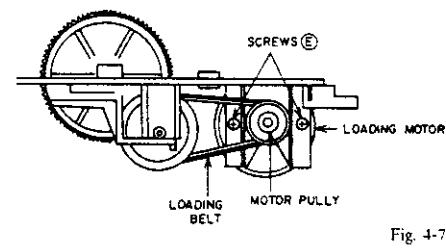
4-6. REMOVAL OF PICK UP MECHA BLK

- 1) Turn the LEVERS G while releasing the STOPPERS H as shown Fig.4-6.
- 2) Pull out the PICK UP MECHA BLK.
- 3) Reassemble in reverse order.



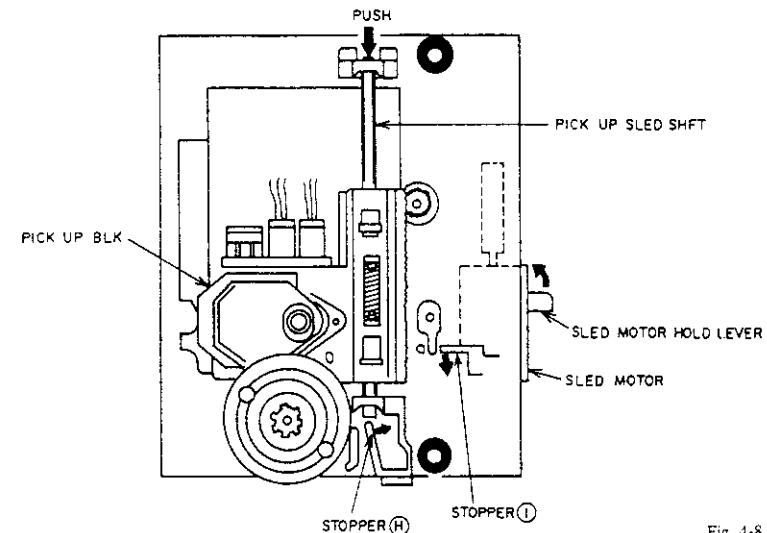
4-7. REMOVAL OF LOADING MOTOR

- 1) Remove the LOADING BELT from MOTOR PULLY.
- 2) Remove two SCREWS I and remove LOADING MOTOR.
- 3) Reassemble in reverse order.



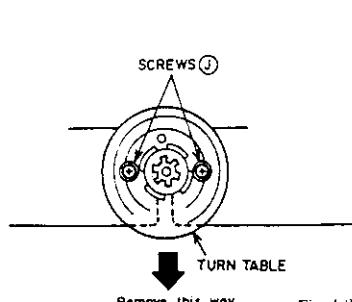
4-8. REMOVAL OF PICK UP BLOCK

- 1) Push PICK UP SLED SHAFT while releasing the STOPPER J as shown Fig.4-8 and pull out the PICK UP SLED SHAFT, then remove PICK UP BLK.
- 2) Reassemble in reverse order.



4-10. REMOVAL OF SPINDLE MOTOR

- 1) Remove two fixation SCREWS K of the SPINDLE MOTOR through the hole on the TURN TABLE as shown Fig.4-9.
- 2) Reassemble in reverse order.



4-9. REMOVAL OF SLED MOTOR

- 1) Turn the SLED MOTOR HOLD LEVER while releasing the STOPPER L (Refer to Fig.4-8) and remove SLED MOTOR.
- 2) Reassemble in reverse order.

V. ELECTRICAL ADJUSTMENT

About the TEST mode

This TEST mode use for the adjustment or check.

How to set into the TEST mode.

Turn the power on, while pressing the **TEST**, **PLAY** and **PAUSE** buttons on the front panel.

How to change the TEST mode number.

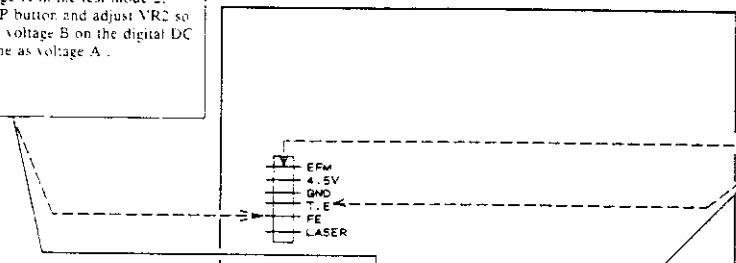
Press the **TEST** button, then advance a TEST mode number, when TEST mode number is returned to initial TEST mode number, press **TEST** button.

STEP 1 ADJUSTMENT ITEM	
1. TEST DISC	
2. MODE or TEST mode	
3. TEST POINT and ADJ. part	
4. RESULT & REMARKS	

Test Point → ADJ. Part

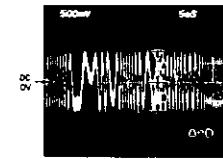
4 FOCUS OFF-SET

1. Test disc 5A(AT-751330)
2. Test mode 2 and 3
3. TP(FE), VR2
4. • Connect a digital DC voltmeter to TP(FE) and check voltage A in the test mode 2, then press STOP button and adjust VR2 so that the reading voltage B on the digital DC voltmeter is same as voltage A.



2 E-F BALANCE

1. Test disc 5A(AT-751330)
2. Test mode 3
3. TP(TE), VR1
4. • Connect an oscilloscope to TP(TE) * A=B



1 VCO

1. —
2. 10 seconds after power is on.
3. TP(WFCK), VR5
4. • Connect a frequency counter to TP(WFCK).
• Connect TP(EFM) to GND by jumper wire.
• $7350 \pm 10\text{Hz}$

3 FOCUS SERVO GAIN

1. Test disc 5A(AT-751330)
2. PLAY
3. Pin ④ (FCS) of connector P1, VR3
4. • Connect an oscilloscope to pin ④ (FCS) of connector P1.
• Use to 1.2Vp-p.



5 TRACKING SERVO GAIN

1. Test disc 5A(AT-751330)
2. PLAY
3. Pin ④ (FCS) of connector P1, VR4
4. • Connect an oscilloscope to pin ⑥ (TRK) of connector P1.
• Use to 1.2Vp-p.



VII. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list Part No., Model No. and the description of each part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

a) Mechanism Block

2. HEAD BASE BLOCK

REF. NO.	PART NO.	DESCRIPTION
1	BH-T2023A320A	HEAD BASE BLOCK
2	HP-H206A010A	HEAD R.P.PRI-8FL C
3	ZS-477876	PAN20X03STL CMT
4	ZS-536488	BID20X08STL CMT
5	ZG-402895	SP CS ANGLE ADJUST

SP (Service Parts) Classification

This number corresponds with the individual parts index number in that figure.

The available PC Board Blocks are listed separately.

5. When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No. listed at right of Part No.

WARNING

△(*) INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

△(*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DÉGRÉ DE SÉCURITÉ DE L'APPAREIL, NE remplacer QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

1. RECOMMENDED SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service.

Ref. No.	Part No.	Description
1	BM-730687T	MOTOR RD-050Y-10240
2	BM-730587	MOTOR RF-3*GT-11400
3	BM-730695T	MOTOR RF-500TB-12560
4	*ED-368598	PICK UP SS-150A
5	*BT-730710T	TRANS PGW EI-48K (B.S) (B.S)
6	*BT-730709T	TRANS PGW EI-48K (E.V)
7	*BT-730718T	TRANS PGW EI-48K (U)
8	ED-367572	D SILICON - 1SS-31
9	*ED-369840J	D SILICON 1N5136-100HS P10
10	ED-346627	D ZENER H - Z23 2
11	ED-708301	D ZENER H - ZC24E B
12	EC-324458	D ZENER H - RD5.1E B
13	ED-200967	D ZENER H - RD5.6E B2
14	ED-305442	D ZENER H - RD6.3E B
15	ED-381679J	DETECTOR A/DH3011HO
16	*EF-358641	FUSE BET T 250V 800mA (E.V.B.S)
17	ED-391092J	IC AD1856N
18	ED-377857	IC BA6247N
19	ED-390112J	IC CXA1081S
20	ED-390120J	IC CXA1082S
21	ED-388090J	IC CXD11250
22	ED-382251J	IC LC517B8-15
23	ED-390122J	IC M50957-188P P2057-1
24	ED-307544	IC NJM4556D
25	ED-723861J	IC NJM4556DD
26	ED-392838J	IC PD0050
27	ED-360299J	IC TC14HC08AP
28	ED-371572	IC UPC7805H
29	ED-390149J	OSC CE CS-7 23MGW 4.230MHZ
30	ED-374176	OSC XTA A7-51 16.934MHz
31	EM-388559J	IND FL FV338C CHARACTER
32	ES-730694T	SW LEAF LSC-1223-31
33	ES-390127J	SW PUSH SPB12
34	ES-390128J	SW PUSH SPUP1201B 02-02N
35	*ES-349464	SW SLIDE 00120319.01-2 (U)
36	ES-349474	SW TACT SKHHAM004A (SEARCH FWD)
37	ET-356336	TR DTA114ES
38	ET-388853J	TR 2SA1209 S
39	ET-352726	TR 2SA1392 T.U
40	ET-356817	TR 2SB891 CLR
41	ET-730702T	TR 2SB909MR
42	ET-338410	TR 2SC2878 A,B
43	ET-378524J	TR 2SC3383 S,T,U
44	ET-398788	TR 2SC945L R
45	ET-354283	TR 2SD1189 Q,R
46	ET-720698T	TR 2SD1225MR
47	EV-731180T	VR 20KAX2 RK15Y12MR005-CP
	MB-730693T	BELT

2. CD MECHANISM

Ref. No.	Part No.	Description
1	*BC-368538	PICK UP SS-150A
2	MA-731007T	CHASSIS OUT SEAT
3	MZ-730887	TURNTABLE OUTSET
4	SM-730887	MOTOR RF-3*GT-11400
5	EM-730887	MOTOR RD-050Y-10240
6	MZ-731011T	GEAR WHEEL
7	ES-390127J	SW PUSH SPB12
8	MB-730688T	RUBBER CUSHION
9	MA-731008T	LOADING CHASSIS OUT SEAT
10	3M-730695T	MOTOR RF-500TB-12560
11	MB-730693T	BELT
12	MZ-730691T	GEAR LOADING
13	MZ-730692T	GEAR LOADING PULLEY
14	ES-730694T	SW LEAF LSC-1223-31
15	SC-731017T	DISC TRAY
16	MZ-731016T	DISC HOLDER
17	MZ-730678T	DISC HOLDER (F)
18	MZ-730679T	DISC HOLDER (R)
19	MZ-730680T	LOCK LEVER
20	MZ-731019T	CAM LEADER
21	MZ-731018T	DISC TRAY GUIDE
22	MZ-731012T	CHUCKING PLATE
23	MZ-731015T	CLAMPER HOLDER
24	MZ-731014T	MAGNET 30X18X5
25	MZ-731013T	CLAMPING PLATE

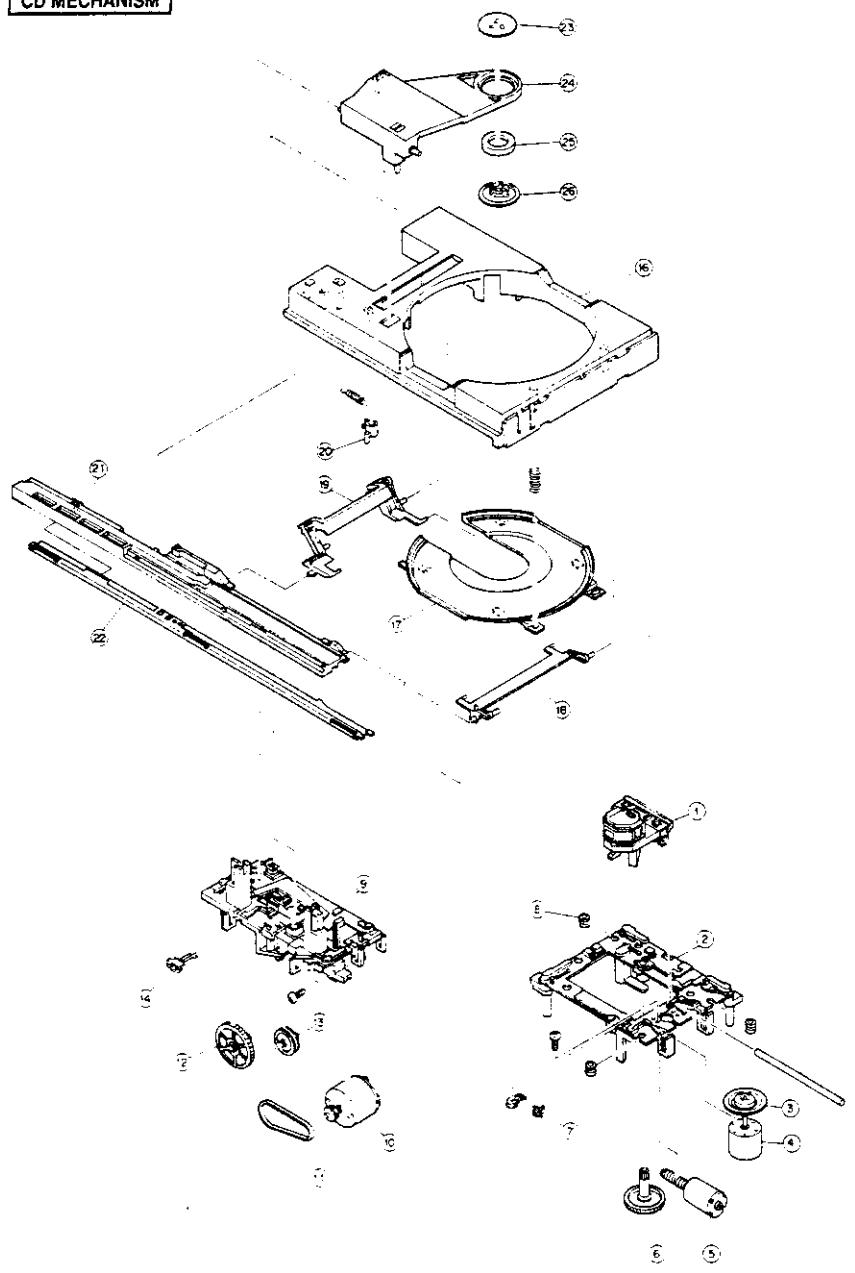
NOTE:

Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

3. P.C BOARD BLOCK

Ref. No.	Part No.	Description
1	BA-73193T	PC MAIN BLK CD-55
2	BA-731184T	PC CONTROL BLK CD-55

CD MECHANISM



4. MAIN P.C BOARD

Ref. No.	Part No.	Description
D1	#ED-389840J	D SILICON 1SR139-100HS F10
D2	#ED-389840J	D SILICON 1SP139-100HS F10
D3	#ED-389840J	D SILICON 1SR139-100HS F10
D4	#ED-389840J	D SILICON 1SR139-100HS F10
D5	#ED-389840J	D SILICON 1SR139-100HS F10
D6	#ED-389840J	D SILICON 1SR139-100HS F10
D7	#ED-389840J	D SILICON 1SR139-100HS F10
D8	#ED-389840J	D SILICON 1SR139-100HS F10
D9	#ED-389840J	D SILICON 1SR139-100HS F10
D10	#ED-389840J	D SILICON 1SR139-100HS F10
D11	ED-346627	D ZENER H HZ33 2
D12	ED-324458	D ZENER H RD5 1E B
D14	ED-305442	D ZENER H RD5 6E B
D15	ED-307572	D SILICON H 1SS131
D17	ED-307572	D SILICON H 1SS131
D18	ED-307572	D SILICON H 1SS131
D19	ED-307572	D SILICON H 1SS131
D20	ED-307572	D SILICON H 1SS131
D21	ED-307572	D SILICON H 1SS131
D24	ED-307572	D SILICON H 1SS131
D25	ED-307572	D SILICON H 1SS131
D26	ED-324458	D ZENER H RD5 1E B
D28	ED-389840J	D SILICON 1SR136-100HS F10
D30	ED-324458	D ZENER H RD5 1E B
D31	ED-706301	D ZENER H RD5 6E B
D32	ED-200967	D ZENER H RD5 6E B2
D33	ED-324458	D ZENER H RD5 1E B
D34	ED-200967	D ZENER H RD5 6E B2
D35	ED-307572	D SILICON H 1SS131
IC1	EI-390112J	IC CXA1061S
IC2	EI-390120J	IC CXA1062SS
IC3	EI-388090J	IC CXD11250
IC4	EI-392251J	IC LC3517BS-15
IC5	EI-390122J	IC M52957-188SP P2057-1
IC6	EI-360039J1	IC TC74HC08AP
IC7	EI-377857	IC BA6247N
IC8	EI-392936J	IC P0050
IC9	EI-391092J	IC AO1856N
IC10	EI-723861J	IC NJM4558DD
IC11	EI-723861J	IC NJM4558DD
IC12	EI-371572	IC UPC7805H
J3	EI-390116J	PIN J 16312-AAAA 1P
J4	EI-731182T	PIN J 4P RCA AJC-025-ACB
OP1	EI-374191	SOCKET OPTICAL TDTX172
T1	BT-368261	TRANS PULSE TC-1027-04
TR1	ET-336735	TR 2SA733A P.K
TR2	ET-399786	TR 2SC945L R
TR5	ET-336735	TR 2SA733A P.K
TR6	ET-336735	TR 2SA733A P.K
TR7	ET-354063	TR 2SC1169 Q.R
TR8	ET-356817	TR 2SB891 Q.R
TR9	ET-354063	TR 2SC1169 Q.R
TR10	ET-730702T	TR 2SB909MR
TR11	ET-354063	TR 2SC1169 Q.R
TR12	ET-356817	TR 2SB891 Q.R
TR13	ET-730698T	TR 2SC1225MR
TR14	ET-730702T	TR 2SB909MR
TR15	ET-399786	TR 2SC945L R
TR17	ET-336735	TR 2SA733A P.K
TR18	ET-399786	TR 2SC945L R
TR19	ET-336735	TR 2SA733A P.K
TR20	ET-399786	TR 2SC945L R
TR21	ET-399786	TR 2SC945L R
TR22	ET-378524J	TR 2SC3383 S.*.U
TR23	ET-352726	TR 2SA1392 T.U
TR24	ET-399786	TR 2SC945L R
TR25	ET-399786	TR 2SC945L R
TR26	ET-388853J	TR 2SA1209 S
TR27	ET-356817	TR 2SB891 Q.R
TR28	ET-336735	TR 2SA733A P.K
TR29	ET-356336	TR DTA114ES
TR30	ET-356336	TR DTA114ES
TR31	ET-336735	TR 2SA733A P.K
TR32	ET-356336	TR DTA114ES
VR1	EV-336849	R S-FIX H KVSF807U C 10W 203 [FOCUS OFF SET]
		R S-FIX H KVSF807U C 10W 203 [FOCUS GAIN]
		R S-FIX H KVSF807U C 10W 203 [TRACKING GAIN]
		R S-FIX H TM8KV2-1S 0.50W 102 [PLL]
X1	EI-374176	OSC XTAL AT-51 16.9344MHz
X2	EI-390149J	OSC CE CST4.23MGW 4.230MHz

Ref. No.	Part No.	Description
VR2	EV-336849	R S-FIX H KVSF807U C 10W 203 [FOCUS OFF SET]
VR3	EV-336849	R S-FIX H KVSF807U C 10W 203 [FOCUS GAIN]
VR4	EV-336849	R S-FIX H KVSF807U C 10W 203 [TRACKING GAIN]
VR5	EV-341232	R S-FIX H TM8KV2-1S 0.50W 102 [PLL]
X1	EI-374176	OSC XTAL AT-51 16.9344MHz
X2	EI-390149J	OSC CE CST4.23MGW 4.230MHz

5. POWER P.C BOARD

Ref. No.	Part No.	Description
C201A	*EC-338496	C CE V DE7 FZ 472P 400AC [E.V.B.S]
C201B	*EC-338411	C CE V DE7 FZ 103P 400AC [U]
C202A	*EC-338496	C CE V DE7 FZ 472P 400AC [E.V.B.S]
C202B	*EC-338411	C CE V DE7 FZ 103P 400AC [U]
F101	*EF-358641	FUSE BET T 250V 800MA [E.V.B.S]
F102	*EF-358641	FUSE BET T 250V 800MA [E.V.B.S]
LF201	*EH-730701T	LINE FILTER LF-2217 [E.V.]
VS201	*ES-349464	SW SLIDE 00120319 D1-2 [U]

6. CONTROL P.C BOARD

Ref. No.	Part No.	Description
C301	ED-307572	D SILICON H 1SS131
C302	ED-307572	D SILICON H 1SS131
C303	ED-307572	D SILICON H 1SS131
C304	ED-307572	D SILICON H 1SS131
C305	ED-307572	D SILICON H 1SS131
C306	ED-307572	D SILICON H 1SS131
C307	ED-307572	D SILICON H 1SS131
C308	ED-307572	D SILICON H 1SS131
NGC	EM-398559J	IND FL FV338G CHARACTER
RM301	ED-381879J	DETECTOR AI0H3011HD
TS1	ES-349474	[SEARCH FWD]
TS2	ES-349474	SW TACT SKHHAM004A
TS3	ES-349474	[SEARCH REV]
TS4	ES-349474	SW TACT SKHHAM004A
TS5	ES-349474	[SKIP FWD]
TS6	ES-349474	SW TACT SKHHAM004A
TS7	ES-349474	[SKIP REV]
TS8	ES-349474	SW TACT SKHHAM004A
TS9	ES-349474	[OPEN/CLOSE]
TS10	ES-349474	SW TACT SKHHAM004A
TS11	ES-349474	[STOP]
TS12	ES-349474	SW TACT SKHHAM004A
TS13	ES-349474	[PLAY/PAUSE]
TS14	ES-349474	SW TACT SKHHAM004A
TS15	ES-349474	[CLEAR]
TS16	ES-349474	SW TACT SKHHAM004A
TS17	ES-349474	[9]
TS18	ES-349474	SW TACT SKHHAM004A
TS19	ES-349474	[8]
TS20	ES-349474	SW TACT SKHHAM004A
TS21	ES-349474	[+/-]
TS22	ES-349474	SW TACT SKHHAM004A
TS23	ES-349474	[DISPLAY]
TS24	ES-349474	SW TACT SKHHAM004A
TS25	ES-349474	[SIDE A/B]
TS26	ES-349474	SW TACT SKHHAM004A
TS27	ES-349474	[TAPE]
TS28	ES-349474	SW TACT SKHHAM004A
TS29	ES-349474	[PEAK LEVEL]
		[RANDOM PLAY]
		[AUTO SPACE]

7. POWER SW P.C BOARD

Ref. No.	Part No.	Description
S501	ES-390128J	SW PUSH SPUP12018A 02-02N

8. PHONE AMP P.C BOARD

Ref. No.	Part No.	Description
I0401	EI-307644	IC NJM4556C
J401	EI-731181T	PHONE J 3P HTJ-064-03DG
TR401	ET-338410	TR 2SC2878 A,B
VR401	EV-731180T	VR 20KAX2 RK16Y12MR005-CP

9. FINAL ASSEMBLY

Ref. No.	Part No.	Description
1	SE-731194T	FRONT ESCUTCHEON CD-55B
2	SK-731196T	KNOB FUNCTION (BK)
3	SP-731190T	PANEL TRAY CD-55B
4	SC-731188T	TOP COVER CD-55B
5	SE-731193T	DISPLAY PLATE
6	SK-372236B	KNOB POWER-B
7	SA-731154T	RING FOOT
8	SA-731156T	SHEET FOOT (F)
9A	*BT-730709T	TRANS POW EI-48K (E,V)
9B	*BT-730710T	TRANS POW EI-48K (B,S)
9C	*BT-730718T	TRANS POW EI-48K (U)
10A	*EW-038923	AC CORD 2C KP-119C,LTC-E2F EV
10B	*EW-727063T	[E]
10C	*EW-347898	AC CORD BS6500 (B)
10D	*EW-731025T	AC CORD 2 CORES VM-0436,LCFL S
10E	*EZ-730703T	[S]
11	STRAIN RELIEF SR-4K-6	AC CORD UL 6.5F BLK2 SPT2
12	ZS-365702	[U]
13	PLX BID30X10STL BN1	NAME PLATE AKAI(2)
14	SM-365756C	KNOB VR (BK)
15	SK-731189T	SHEET FOOT (R)
16	SA-731155T	SUB PLATE ASSY
17	SE-731186T	FRONT PANEL CD-55B
18	SP-731187T	KNOB O/C (BK)
19	SK-731195T	KNOB PRESET (BK)
20	SK-731197T	

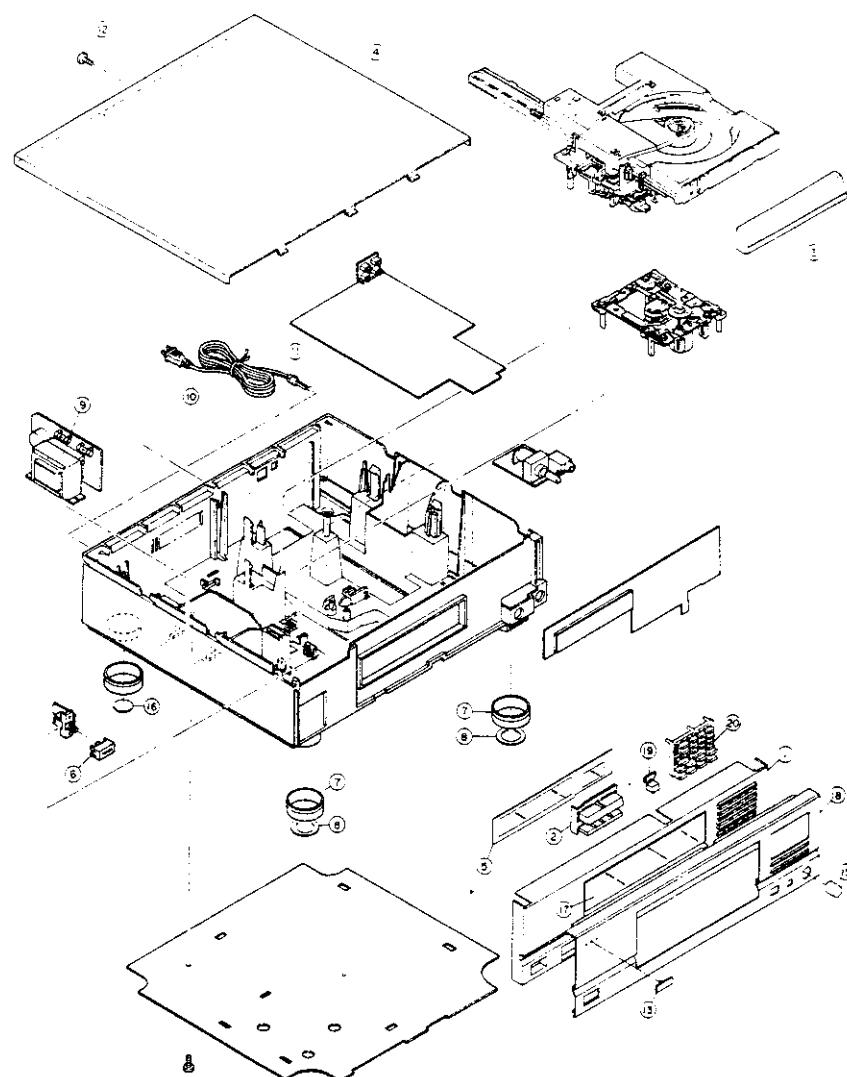
NOTE:

Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

10. ACCESSORY

Ref. No.	Part No.	Description
1	AX-731192T	REMOTE TRANSMITTER ASSY RC-55 (B)
2	EW-387930J	CORD R-237P P.P 2P

FINAL ASSEMBLY BLOCK



INDEX

Part No	Ref No	Part No	Ref No	Part No	Ref No	Part No	Ref No	Part No	Ref No
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BA-731183T	3-1	EI-377B5T	4-C7	ET-356336	4-TR29				
BA-731164T	3-2	EI-382251	1-22	ET-356336	4-TR30				
BM-730687T	1-1	EI-382251J	4-C4	ET-356336	4-TR32				
BM-730687T	2-5	EI-38809C	1-21	ET-356817	1-40				
BM-730688T	1-2	EI-38809C	4-C3	ET-356817	4-TR6				
BM-730688T	2-4	EI-390112	1-19	ET-356817	4-TR12				
BM-730695T	1-3	EI-390112	4-C1	ET-356817	4-TR27				
BM-730695T	2-10	EI-39012C	1-20	ET-378524J	1-43				
BO-366598	1-4	EI-390120J	4-C2	ET-378524J	4-TR22				
BO-366598	2-1	EI-390122J	1-23	ET-388853J	1-38				
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BT-730709T	9-94	EI-390149	4-X2	ET-398788	4-TR4				
BT-730710T	1-5	EI-391092	1-17	ET-398788	4-TR15				
BT-730710T	9-98	EI-391092	4-C9	ET-398788	4-TR18				
BT-730716T	1-7	EI-392835	1-26	ET-398788	4-TR20				
BT-730716T	5-9C	EI-392835	4-C6	ET-398788	4-TR21				
EC-338411	5-C201B	EI-723861J	1-25	ET-398788	4-TR24				
EC-338411	5-C202B	EI-723861J	4-C10	ET-398788	4-TR25				
EC-338496	5-C201A	EI-723861J	4-C11	ET-720698T	1-46				
EC-338496	5-C202A	EI-37419	4-OP1	ET-720698T	4-TR13				
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ED-200967	4-D32	EI-731181T	4-J401	ET-720702T	4-TR10				
ED-200967	4-D34	EI-731182T	4-J4	ET-720702T	4-TR14				
ED-305442	1-14	EM-388559J	1-31	EV-356549	4-VR1				
ED-305442	4-D14	EM-388559J	6-IN301	EV-356849	4-VR2				
ED-307572	1-8	ES-349464	1-35	EV-356849	4-VR3				
ED-307572	4-D15	ES-349464	5-V5201	EV-356849	4-VR4				
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ED-307572	4-D21	ES-349474	6-TS4	EW-347898	9-10C				
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ED-324458	4-D26	ES-349474	6-TS18	MZ-730691T	2-12				
ED-324458	4-D30	ES-349474	6-TS19	MZ-730692T	2-13				
ED-324458	4-D33	ES-349474	6-TS20	MZ-731011T	2-6				
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ED-389840J	4-D2	ES-349474	6-TS27	MZ-731019T	2-21				
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EI-371572	4-I12	ET-354082	4-TR7						
EI-374176	1-30	ET-354082	4-TR9						
EI-374176	4-x1	ET-354082	4-TR11						

ABBREVIATIONS (COMPACT DISC)

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
A-D	Analog to Digital (Convertor)	Mb	Mega Bits
ADC	Analog to Digital (Convertor)	MDA	Motor Drive Amplifier
BCD	Binary Code Decimal	MFM	Modified Frequency Modulation
BPI	Bits per Inch	MM	Mono-stable Multivibrator
CD	Compact Disc	MFM	Modified Modified Frequency Modulation
CIRC	Cross Interleaving & Reed Solomon Coding	MOD2	Modulo 2 (Addition)
CLV	Constant Linear Velocity	MP	Microprocessor
CP	Clock Pulses	MSB	Most Significant Bit
CRCC	Cyclic Redundancy Check Codes	NA	Numerical Aperture
D Level	Decision Level	NRZ	Non Return to Zero
D-A	Digital to Analog (Convertor)	NRZ-I	Non Return to Zero Inverted
DAC	Digital to Analog (Convertor)	P	Parity Data
DAD	Digital Audio Disc	PAM	Pulse Amplitude Modulation
DEM	Dynamic Element Matching	PCM	Pulse Code Modulation
DPD	Differential Phase Detection	PD	Phase Detector
DSV	Digital Sum Value	PE	Phase Encode
EFM	Eight to fourteen Modulation	PLL	Phase Locked Loop
EX-OR	EXclusive OR	PNM	Pulse Number Modulation
FCI	Flux Changes per Inch	PPM	Pulse Phase Modulation
FIR	Finite Impulse Response	PWM	Pulse Width Modulation
FP	Front Pulse	Q	Parity Data
FPG	Front Pulse Gate	R,R1,R2, etc.	Data for Right Channel
f	Frequency of Sampling	RAM	Random Access Memory
GF	Galois Field	RPG	Rear Pulse Gate
H&V (Parity)	Horizontal & Vertical	SCOOP	Self Coupled Optical Pick-up
IIR	Infinite Impulse Response	S&H	Sample & Hold
kb	Kilo Bits	S/N	Signal to Noise Ratio
L,L1,L2, etc.	Data for Left Channel	SSG	Standard Signal Generator
LPF	Low Pass Filter	SYS CON	SYStem CONtrol
LSB	Least Significant Bit		

AKAI

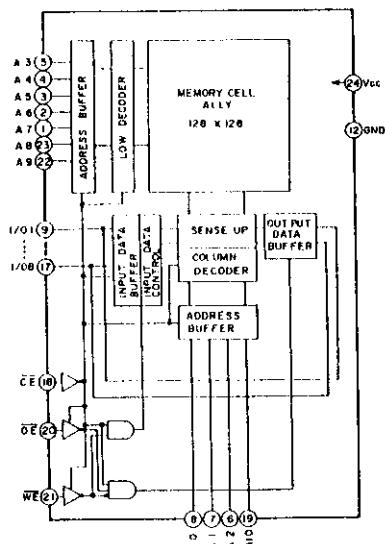
MODEL CD-55

SCHEMATIC DIAGRAMS AND PC BOARDS

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LC3517BS-15 (16K BITS-RAM)



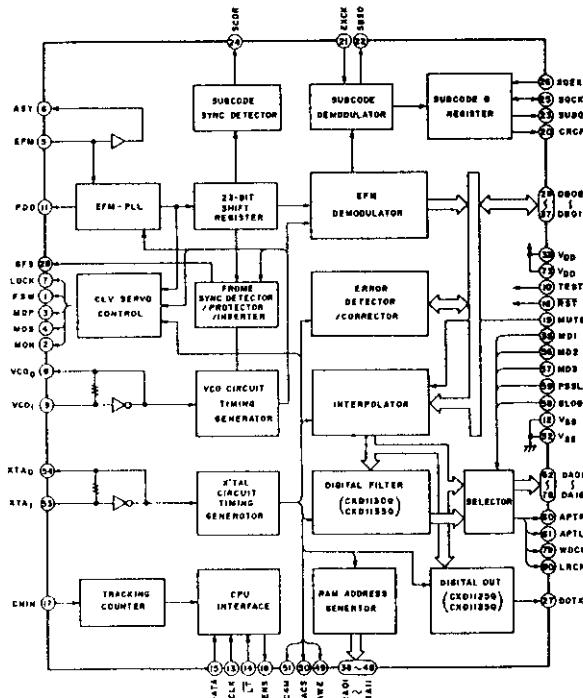
PD0050 (DIGITAL FILTER)

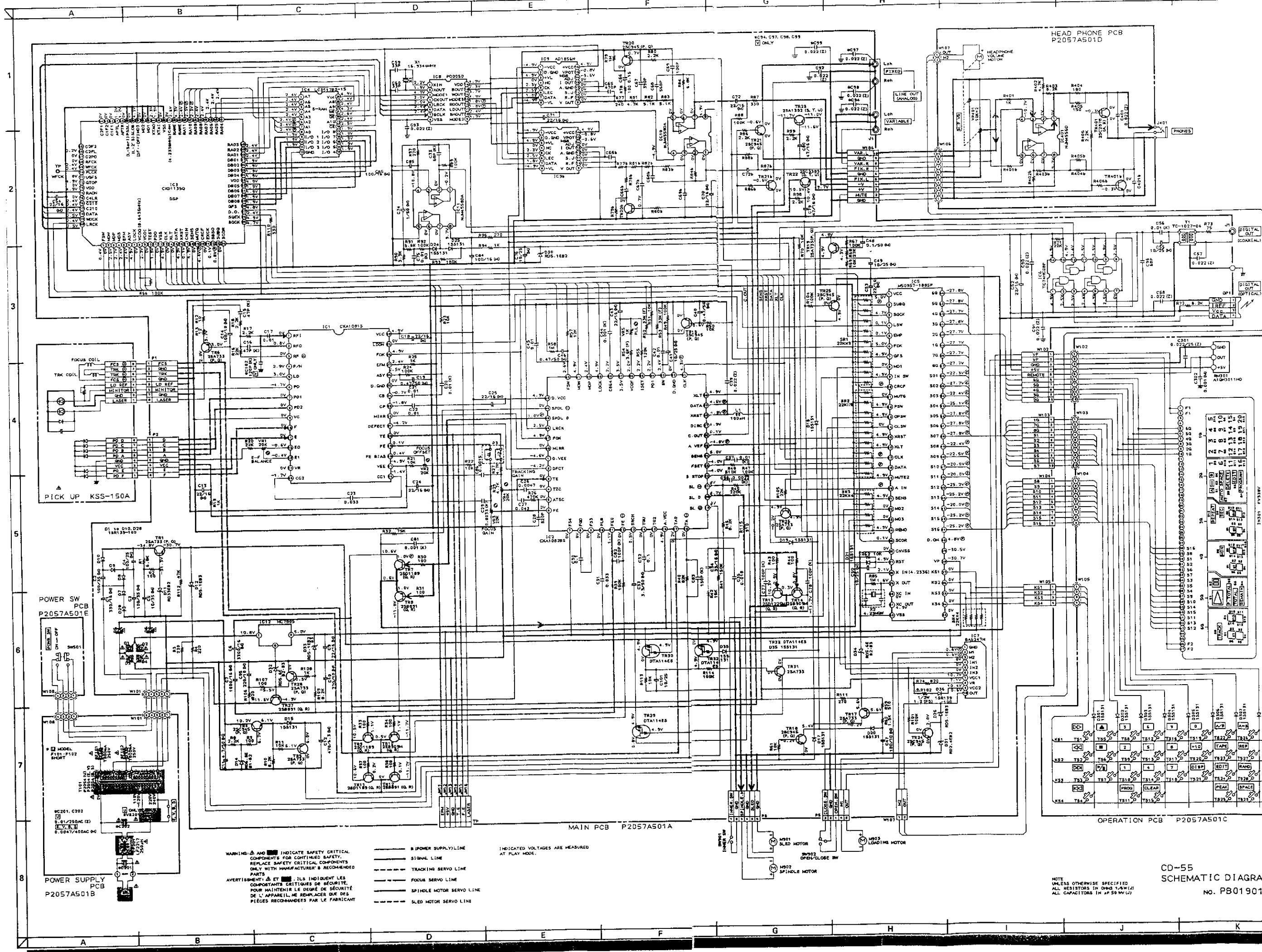
Pin No.	Symbol	I/O	Description
1	XIN	I	Crystal OSC input or external OSC input
2	XOUT	O	Crystal OSC output
3	MODE 1	I	Master clock (XIN) and CKOUT Select *
4	CKOUT	O	External clock output *
5	TRCK	I	IR clock input
6	DATA	I	Serial data input
7	BCLK	I	Bit clock for input data
8	VSS	GND	
9	MOOF 2	I	"1" level output of 18 bit data "L" level output of 16 bit data
10	SHOUT	O	Sample and hold pin output
11	LDOOUT	O	Lock data output
12	RDOOUT	O	Rich data output
13	MODE 3	I	Master clock (XIN) and CKOUT select *
14	WOFF	O	WORD clock output
15	BOFF	O	Bit clock output for LDOOUT,RDOOUT
16	VDD	4.5V power supply	

* Master clock frequency can be selected by MODE 1 and MODE 3 condition as shown below

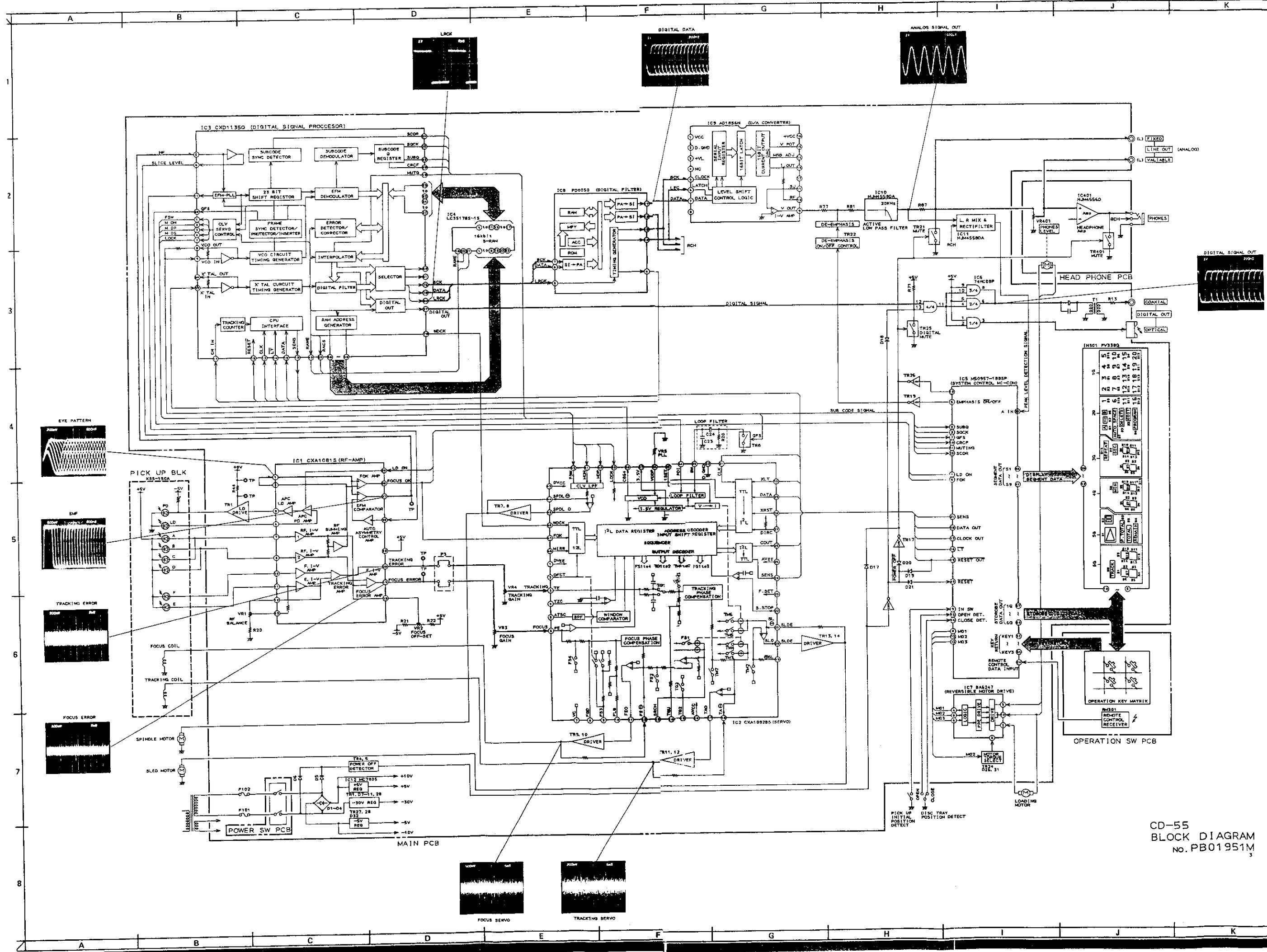
MODE 1	MODE 3	MASTER CLOCK (XIN)	CKOUT
H	D	0MHz	484ns
L	H	192fs	192fs
H	L	192fs	199fs
L	I	196fs	196fs

CXD1135Q (DIGITAL SIGNAL PROCESSOR)

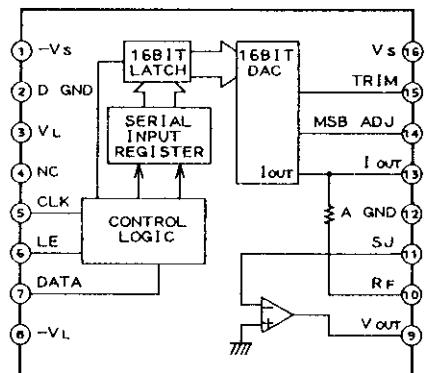




CD-55
SCHEMATIC DIAGRAM
NO. PB01901M

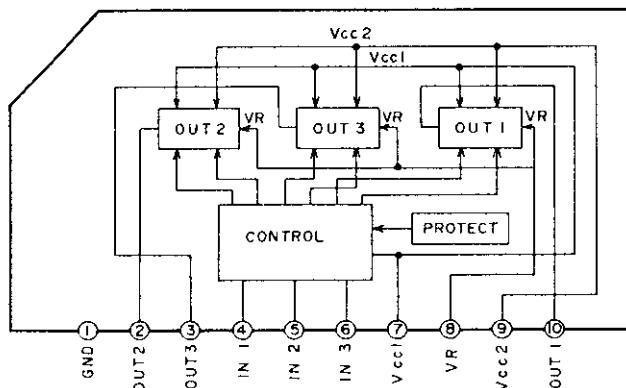


AD1856N (D/A CONVERTER)



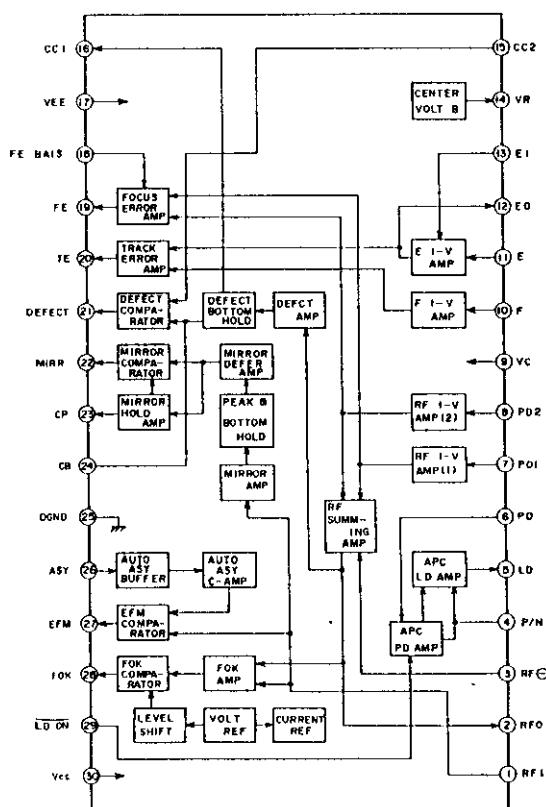
Pin No.	Symbol	Description
1	-Vs	Analog power supply
2	D GND	Digital GND
3	V L	Logic power supply
4	NC	No connection
5	CLK	Bit clock input
6	LE	Latch enable input
7	DATA	Serial data input
8	-V I	Logic power supply
9	V out	Voltage output
10	R F	Feed back resistor terminal
11	SJ	Summing junction
12	AGND	Analog GND
13	I out	Current output
14	MSB ADJ	MSB adjustment terminal
15	TRIM	MSB trimpot terminal
16	V s	Analog power supply

BA6247N (REVERSIBLE MOTOR DRIVE)

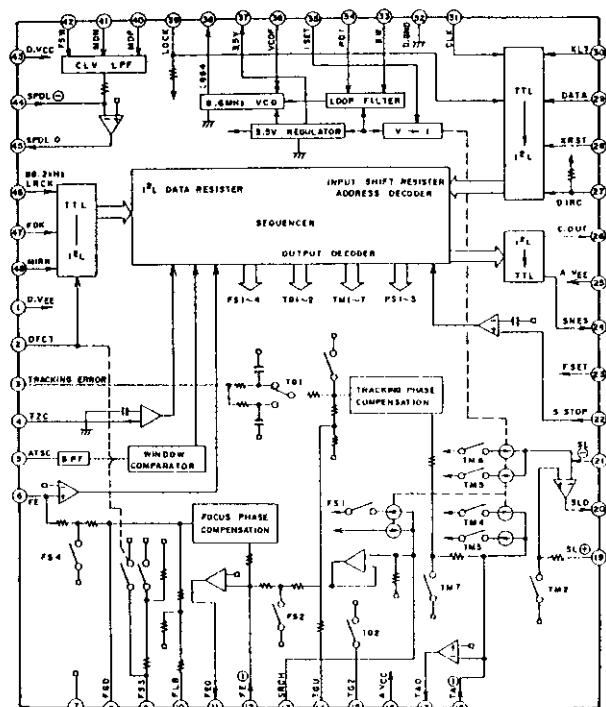


IN PUT			OUT PUT		
IN1	IN2	IN3	OUT1	OUT2	OUT3
L	L	L	L	L	L
H	L	L	H	L	OPEN
H	L	H	L	H	OPEN
L	H	L	H	OPEN	L
L	H	H	L	OPEN	H
H	H	L	L	L	L

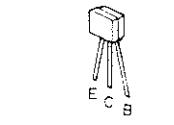
CXA1081S (RF-AMP)



CXA1082BS (SERVO CONTROL.)



LOCATION OF COMPONENTS	
IC5	TRANSISTORS
IC1.....B,C4	TR1.....A3
IC2.....D3	TR4.....B1
IC3.....C1,2	TR5.....B3
IC4.....C2	TR6.....B4
IC5.....D,E2	TR7.....D4
IC6.....A1,2	TR8.....D4
IC7.....B3	TR9.....C4
IC8.....B1	TR10.....D4
IC9.....B1	TR11.....D4
IC9b.....B2	TR12.....D4
IC10.....A1	TR13.....D4
IC11.....A2	TR14.....D4
IC12.....A3	TR15.....D3
	TR17.....B2
	TR18.....B2
P1.....C4	TR19.....B2
P2.....C4	TR20.....B1
P3.....C4	TR20b.....B1
P5.....E3	TR21.....A1
P6.....D4	TR21b.....A1
J1.....A4	TR22.....C1
J4.....A1	TR23.....C1
W101.....A,B4	TR24.....E3
W102.....D2	TR25.....A2
W103.....D,E2	TR26.....D2
W104.....E2	TR27.....A3
W105.....E2	TR28.....A3
W106.....C1	TR29.....D4
W107.....D2	TR30.....D2
W108.....D2	TR31.....E2
W109.....D2	TR32.....D2



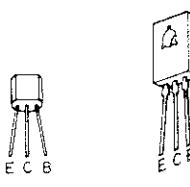
ECB

ECB



DIA114ES

2SD1225



ECB

2SB891

2SA733

2SC945

2SC1189

2SD1189

2SB909M

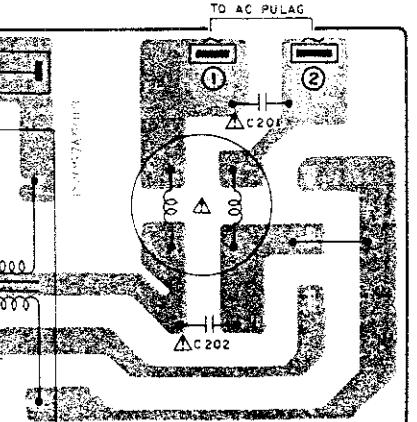
2SA1392

2SC3383

2SD1225

B
● ● ● = NPN TRANSISTOR

B
● ● ● = PNP TRANSISTOR



POWER SUPPLY PCB P2057A50IB
EXCEPT U MODEL

WARNING: △ INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS.

AVERTISSEMENT: △ INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DÉGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

