


# ONKYO® SERVICE MANUAL

## FULLY AUTOMATIC TURNTABLE


### MODEL CP-1140F (B) CP-1140F(B)(KL)

#### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

#### SPECIFICATIONS

Type:	2-speed fully automatic turntable
Turntable Platter:	30 cm (12") aluminum diecast
Motor:	Electronic servo DC motor, belt drive
Speeds:	33-1/3 rpm, 45 rpm
Wow and Flutter:	0.04% (WRMS)
Signal-to-Noise Ratio:	70dB (DIN B)
Tonearm:	Semi-integrated tonearm
Effective arm length:	200mm (7-7/8")
Overhang:	25mm (1")
Maximum Tracking Error:	+3.2 degrees, -2 degrees
Replacement Cartridge:	 cartridge
Included Cartridge	
Type:	Moving magnet OC-72M
Frequency Response:	20 — 20,000Hz
Recommended Load Impedance:	47 kohms
Recommended Tracking Force:	1.25 grams
Output Voltage:	2.5 mV
Replacement Stylus:	DN-72ST
Power Supply:	AC 120V, 50/60Hz
Dimensions (W x H x D)	
With Dust Cover:	430mm x 97mm x 350mm 16-15/16" x 3-13/16" x 13-13/16"
Without Dust Cover:	430mm x 80mm x 347mm 16-15/16" x 3-3/16" x 13-11/16"
Weight	
With Dust Cover:	2.7kg (5.9 lbs.)
Without Dust Cover:	2.1kg (4.6 lbs.)

Specifications and external appearance are subject to change without notice because of product improvements.

**ONKYO®**  
**AUDIO COMPONENTS**

# SERVICE PROCEDURES

## 1. Upper surface

### 1-1. Method for removing the dust cover and hinge

1. Open the dust cover.
2. Hold the hinge section shown in Fig. 7 and pull out the dust cover.
3. Remove the hinge by tapping from the back of the cabinet.

### 1-2. Method for removing the size selector (Fig. 6)

1. Remove the platter.
2. Remove the lug of the detection plate.

### 1-3. Method for removing the 45 adapter (Fig. 6)

1. Remove the platter.
2. Turn the 45 adapter counterclockwise, push the section indicated by the arrows, and the lugs will separate.

### 1-4. Method for removing the arm cover

1. Remove the platter.
2. Remove the 2 caps shown in Fig. 8.
3. Remove the 2 screws underneath the caps.
4. Pull up the cover.

### 1-5. Method for removing the cartridge

Remove the attachment screws of the cartridge and pull out the cartridge.

### 1-6. Method for removing the arm rest

Pull up the arm rest.

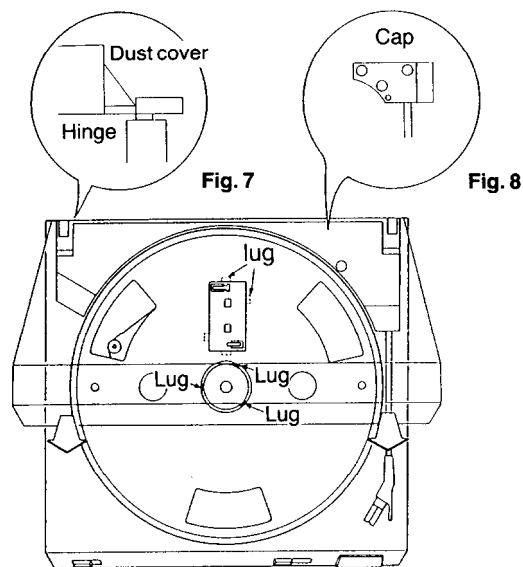


Fig. 6

## 2. Lower surface

### 2-1. Method for removing the bottom board (Fig. 9)

1. Remove the platter.
2. Fasten the arm to the hook.
3. Turn the set upside down and remove the 10 fastening screws.

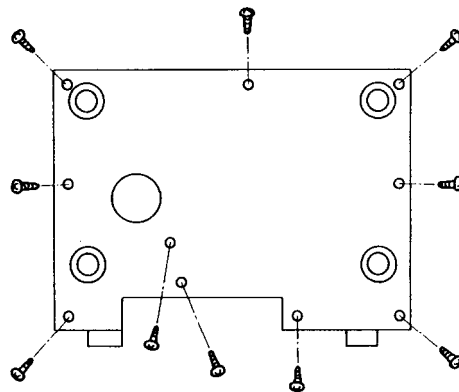


Fig. 9

### 3. Internal components

#### 3-1. Method for removing the tone arm section

1. Remove the shield plate and arm lead wire attached to the pin jack terminal.
2. Flip up the front of the set, and remove the dust cover and arm cover.
3. Remove the 2 screws shown in Fig. 10.
4. Remove the hook and pick up the arm by moving it to the inner periphery.

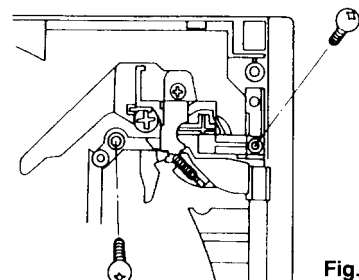


Fig. 10

#### 3-2. Method for removing the cueing assembly

1. Remove the spring.
2. Pull out the rod.
3. Pull out the index plate.
4. Remove the 2 screws.
5. Pick up the cueing assembly.

#### 3-3. Method for removing the platter shaft

1. Remove the fastening screw of the ground lead.
2. Turn the front of the set upward.
3. Remove the lug of the main gear and pull up the main gear.
4. Remove the 3 screws shown in Fig. 15.

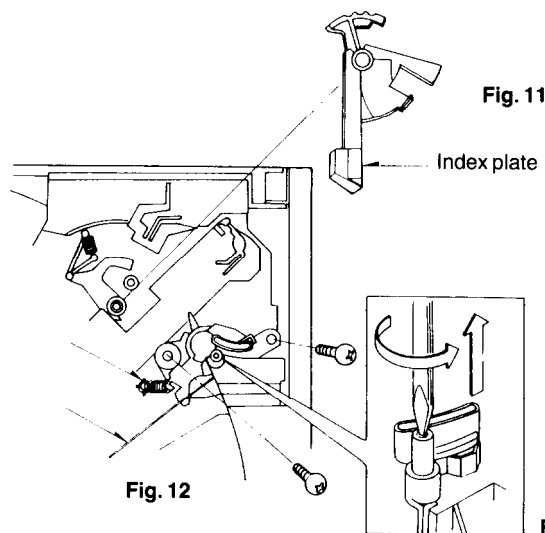


Fig. 11

Index plate

Fig. 12

Fig. 13

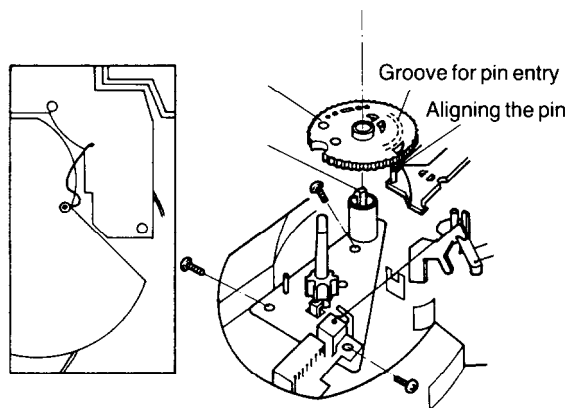


Fig. 14

Fig. 15

The lift arm can be removed directly as shown in Fig. 13.

# ADJUSTMENT PROCEDURES

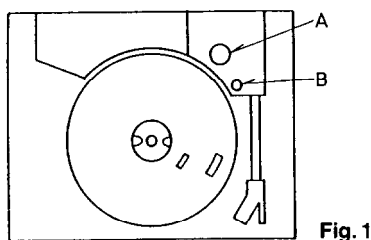


Fig. 1

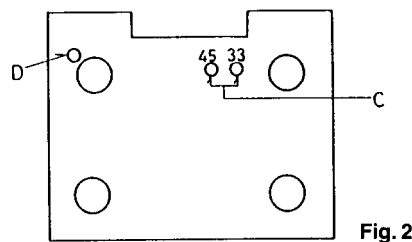


Fig. 2

## 1. Top side adjustment locations

A: Auto Start position adjustment hole

B: Arm Lift height adjustment hole

## 2. Bottom side adjustment locations

C: Speed fine adjustment hole

D: Return position adjustment hole

## 3. Adjustment

### 3-1. Needle tip height adjustment (B section)

Refer to Fig. 1 and Fig. 3

1. Remove the hook.
2. Set the cueing button in the UP position.
3. Place the record on the platter mat.
4. Shift the arm to a position over the record (tone arm in the free condition), and make the adjustment as shown in Fig. 3 so that the tip of the needle is 5mm to 11mm clear of the rubber sheet.

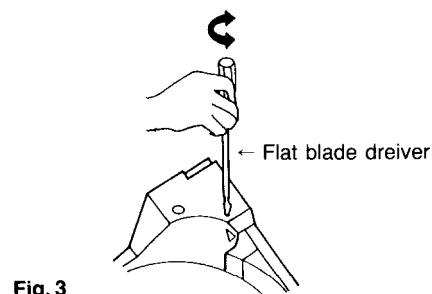


Fig. 3

### 3-2. Lead in adjustment (A section) Fig. 1 and Fig. 4

Test record: ONK-1000

1. Position the tone arm with the hook.
2. As shown in Fig. 4, make the adjustment to the following counts:  
30cm 1 ~ 28 17cm 2 ~ 32  
In case the tip of the needle drops outside the record rim, turn the adjustment in the clockwise (IN) direction. In case the tip of the needle drops inside the recorded portion, turn the adjustment in the counterclockwise (OUT) direction.

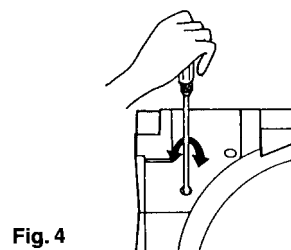


Fig. 4

Do not push too hard with the driver

### 3-3. Auto Return adjustment (D section) Refer to Fig.

2 and Fig. 5 Test record: ONK-1000

1. Position the arm with the hook.
2. Insert the driver in the return adjustment hole with the main unit floating from the back surface, and adjust for 12 to 21 counts.  
If the return is within the recorded section, turn clockwise. If there is no return even after the playing is completed, turn counterclockwise.

### 3-4. Speed adjustment (C section) Refer to Fig. 2 and Fig. 5 Test record: ONK-1000

1. When the test record (ONK-1000) 3KHz is running in playback mode at 45rpm on the A side for 3,000Hz and at 33-1/3rpm on the B side for 3,000Hz, make the adjustment by inserting the driver into the hole at the back surface for the VR101 (45) and for the VR102 (33-1/3) so that the speed is within  $\pm 0.5\%$  of the rated value. (Make the 45rpm adjustment first.)

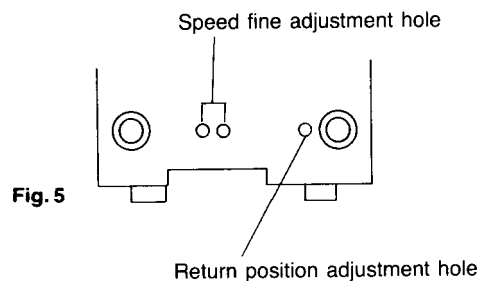
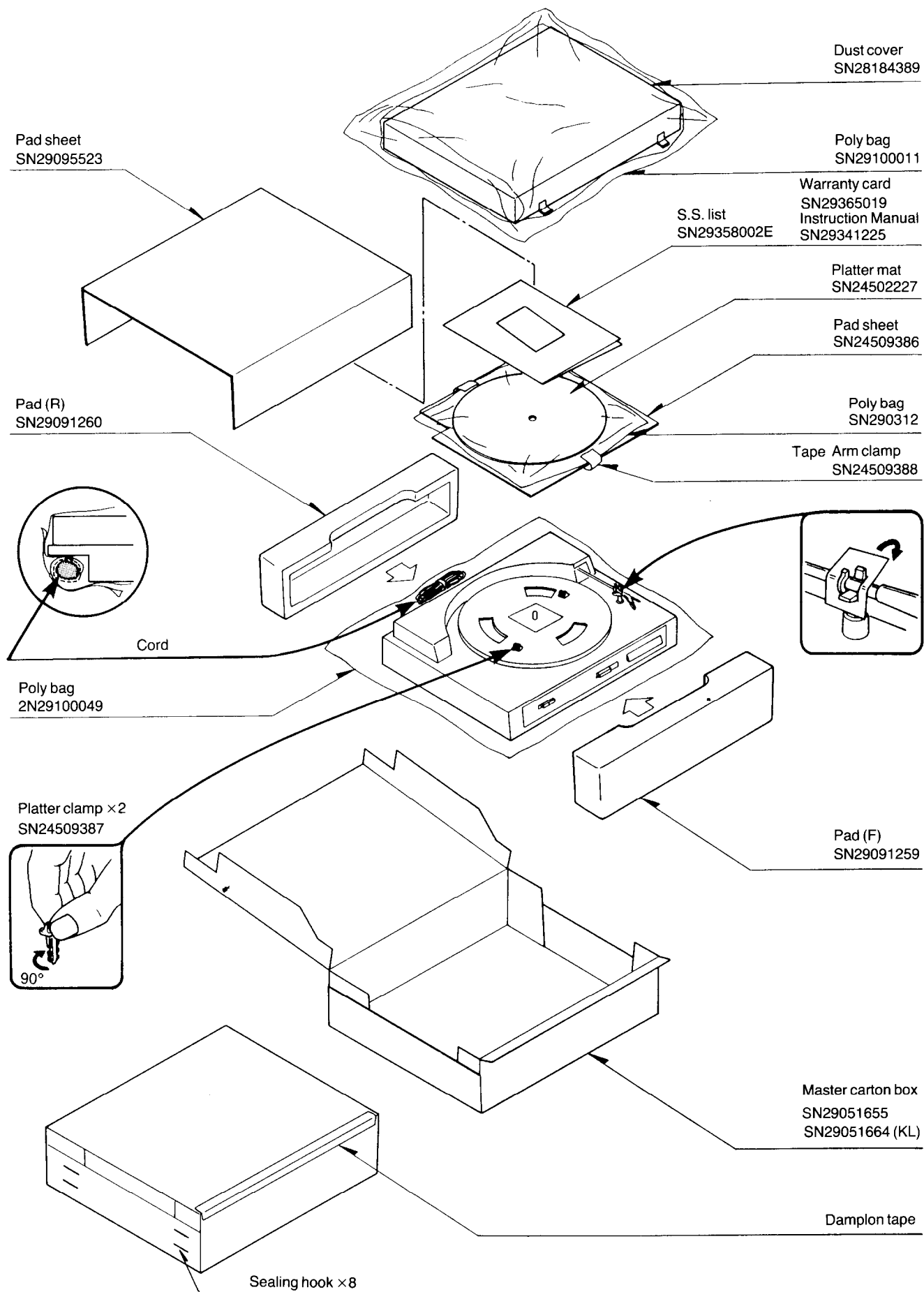


Fig. 5

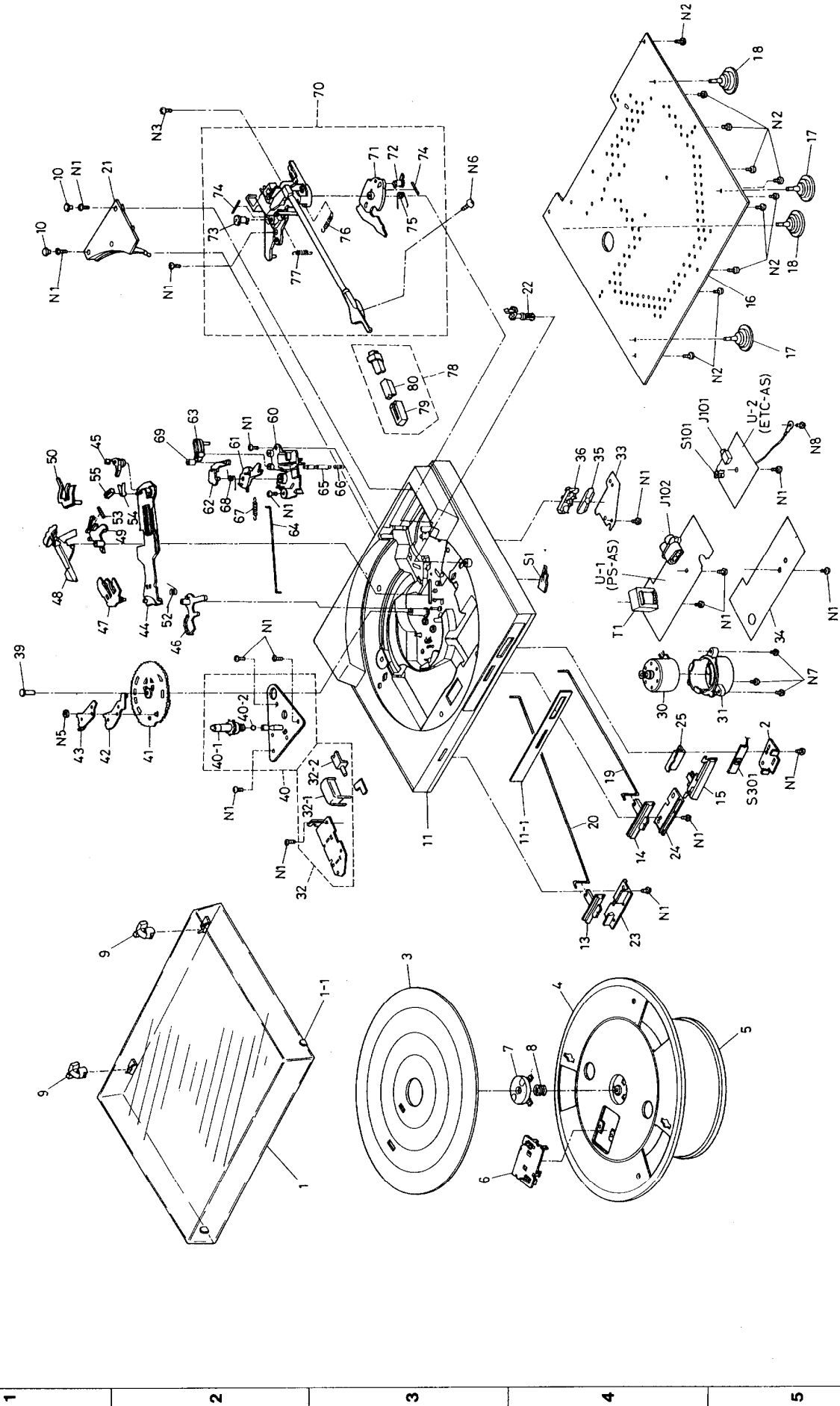
# PACKING VIEW



## EXPLODED VIEW PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1	28184389	Dust cover (CP-1140F(B))	71	24506767A	Actuating arm
1-1	24509381	Stopper (CP-1140F(B))	72	24504423	Cam (A)
2	27141259	Holder (P BASE)	73	24504424	Cam (B)
3	24509380	Platter mat	74	24503157	Spring (SHAFT)
4	24502227	Platter	75	24503158	Spring (D)
5	24502228	Belt	76	24503159	Spring (I.F.C.)
6	24504418	Size selector	77	24503164	Spring (WEIGHT)
7	24504419	45 adapter	78	242979	OC-72M (CP-1140F(B) (KL))
8	24503148	Spring (45)	79	24501581	Stylus cover (CP-1140F(B) (KL))
9	28180094	Hinge (CP-1140F(B))	80	242980	DN-72ST (CP-1140F(B) (KL))
10	24509392	Rubber cap	T1	2300315	NPT-997D
11	28110454	Cabinet AS (CP-1140F(B) (KL))	J102	24505230	AC socket
	28110455	Cabinet AS (CP-1140F(B))	S1	24505217	Leaf switch
11-1	27262476	Plate (CP1140F(B) (KL))	S201	24505231	Push switch
	27262475	Plate (CP-1140F(B))	N1	833430100	Tap-tight screw XTV3 + 10G
13	28323162	Knob (SPEED)	N2	831430100	Tap-tight screw 3TTW + 10PB
14	28323161	Knob (CUE)	N3	833230140	Tap-tight screw XTV3 + 14J
15	28323294	Knob (PLAY)	N5	24506757	Washer
16	27170248	Bottom board	N6	24506768	Screw
17	24509393	Insulator (F)	N7	831430080	Tap-tight screw SFXGQ06N1
18	24509394	Insulator (B)			
19	24506748	Rod (CUE)			
20	24506749	Rod (SP)			
21	24506770	Cover (ARM)			
22	24501582A	Arm rest			
23	27190624	Holder (SP)			
24	27190625	Holder (CUE)			
25	27190626	Holder (P/R)			
26	24509383	Rubber stopper			
30	24502231	D.C. motor			
31	24502232	Cushion (MOTOR)			
32	24506771	Plunger AS			
33	24505226	Shield plate			
34	24506773	Barrier			
35	24506774	Spacer (JACK)			
36	25000005	Pin jack			
39	24509390	Stopper rubber			
40	24506752	Platter shaft AS			
40-1	24506753	Platter shaft			
40-2	24500505	Steel ball 4φ			
41	24504420	Main gear			
42	24506755	Guide (CLUTCH)			
43	24506756	Clutch plate			
44	24506758	Slide arm			
45	24506764	Turn plate			
46	24506759	Actuating arm			
47	24506760	Spacer			
48	24506761	Selector arm (A)			
49	24506762	Selector arm (B)			
50	24506763	Plate			
51	24506775	Rod			
52	24503150	Spring (STOPPER)			
53	24503151	Spring			
54	24503152	Spring			
55	24509384	Cushion			
60	24504425	Base (CUE)			
61	24504426	Cueing cam			
62	24506765	Brake lever			
63	24506766	Elevation plate			
64	24503153	Spring (EL)			
65	24501583	Elevation shaft			
66	24503154	Spring (A)			
67	24503155	Spring (B)			
68	24503156	Spring (C)			
69	24509385	Stopper			
70	24501590	Tone arm AS			

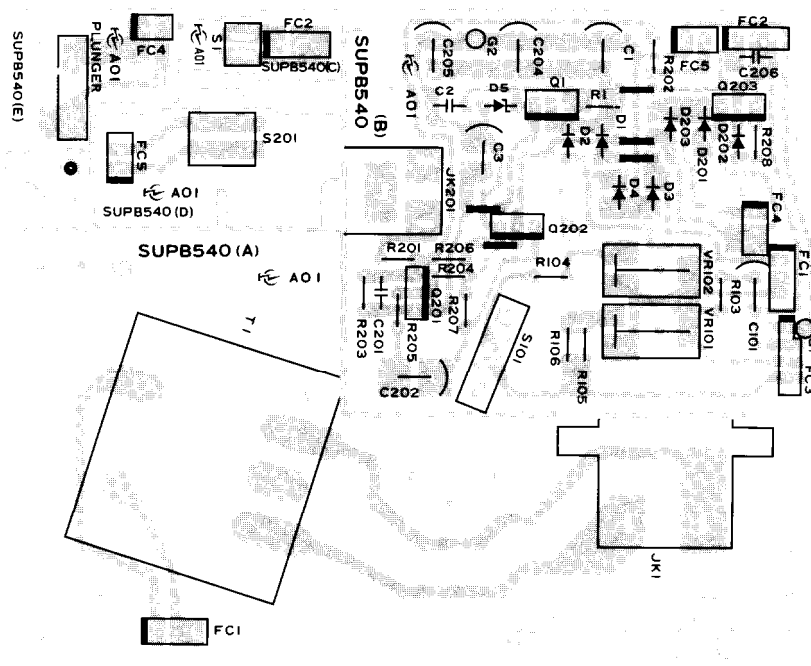
EXPLODED VIEW



**Abstract**



### PRINTED CIRCUIT BOARD VIEW FROM BOTTOM SIDE



## PRINTED CIRCUIT BOARD-PARTS LIST

**ETC-AS (PRINTED CIRCUIT BOARD)**

CIRCUIT NO.	PART NO.	DESCRIPTION
<b>TRANSISTORS</b>		
Q1	2201893	2SC3311-Q
Q201	2201903	2SA1309-Q
Q202	2201913,	2SD1423-Q
	2201914 or	2SD1423-R or
	2201915	2SD1423-S
Q203	2201903	2SA1309-Q
<b>DIODES</b>		
D1-D4	223848	GP-08B
D5	2239472	RD5. 6E-B2
D201	223848	GP-08B
D202, D203	223163	1SS133

CIRCUIT NO.	PART NO.	DESCRIPTION
	<b>CAPACITORS</b>	
C1	354743319	330 $\mu$ F, 16V, Elect.
C3	352721019	100 $\mu$ F, 6.3V, Elect.
C201	354741009	10 $\mu$ F, 16V, Elect.
C202	352724719	470 $\mu$ F, 6.3V, Elect.
C204.C205	354744719	470 $\mu$ F, 16V, Elect.
	<b>RESISTORS</b>	
R208	44162714	RS 1 WBJ 470 $\Omega$
VR101	5215044	N08HR 5KBC
VR102	5215046	N08HR 50KBC
	<b>SWITCH</b>	
S101	24505216	Leaf switch
	<b>TERMINAL</b>	
J101	25000006	Pin jack

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