

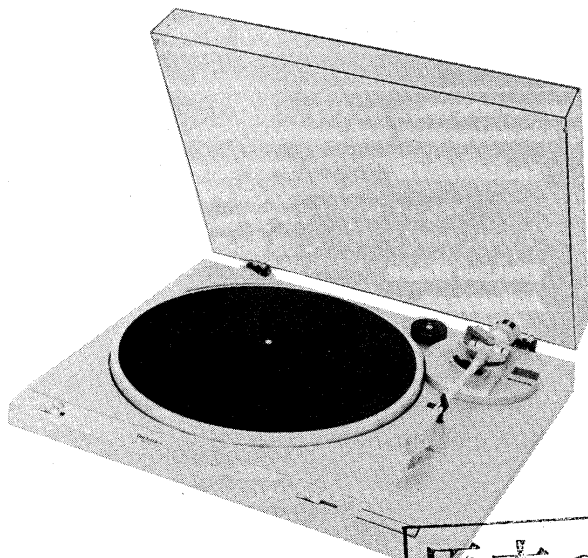


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Service Manual

Turtable System SL-B210 SL-B210(K) [E], [EK], [EG], [Ei], [EC] [EB], [EH], [XL], [EF], [XA]



T4P is the standard mark for plug-in-connector type. Products carrying this mark are interchangeable and adaptable among each other.

English

原本のため
持出厳禁

Areas

- * [E] is available in Switzerland and Scandinavia.
- * [EK] is available in United Kingdom.
- * [EG] is available in F.R. Germany.
- * [Ei] is available in Italy.
- * [EC] is available in Czechoslovakia.
- * [EB] is available in Belgium.
- * [EH] is available in Holland.
- * [XL] is available in Australia
- * [EF] is available in France.
- * [XA] is available in Southeast Asia, Oceania, Africa, Middle Near East and Central South America.

- * The colors of this model include silver and black.
- * The black type model is provided with (K) in the Service Manual.

Specifications

Specifications are subject to change without notice for further improvement.
Weight and dimensions shown are approximate.

■ General

Power supply:	220V, 50/60Hz (For Continental Europe)
Power consumption:	2 W
Dimensions: (W×H×D)	43 × 9.3 × 37.5 cm (16-15/16" × 3-21/32" × 14-3/4")
	Maximum height when top (dust cover) is open. 43 × 36 × 41 cm (16-15/16" × 14-5/32" × 16-1/8")
Weight:	3.3 kg (7.3 lb.)

■ Turntable section

Type:	Automatic turntable Auto return Auto stop Belt drive
Drive method:	DC motor
Motor:	DC servo control
Drive control method:	Aluminum die-cast
Turntable platter:	Diameter 30.4 cm (12 inches)
Turntable speeds:	33-1/3 rpm and 45 rpm
Wow and flutter:	0.045% WRMS (JIS C5521) ±0.06% peak (IEC 98A Weighted)
Rumble:	-70 dB (IEC 98A Weighted)

■ Tonearm section

Type:	Statically-balanced straight tonearm Plug-in connector cartridge system
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Effective length:	230 mm (9-1/16")
Overhang:	15 mm (19/32")
Tracking error angle:	Within 2°32' at the outer groove of 30 cm (12") record Within 0°32' at the inner groove of 30 cm (12") record
Effective mass:	7.5 g (without cartridge)
Stylus pressure adjustment range:	1.25 g
Applicable cartridge weight range:	6 g

■ Cartridge section

Type:	Moving magnet stereo cartridge
Magnet circuit:	All laminated core
Frequency response:	10 Hz ~ 30 kHz 20 Hz ~ 10 kHz ±1 dB
Output voltage:	2.5 mV at 1 kHz, 5 cm/s. zero to peak lateral velocity (7 mV at 1 kHz, 10 cm/s. zero to peak 45° velocity [DIN 45 500])
Channel separation:	22 dB at 1 kHz
Channel balance:	Within 2 dB at 1 kHz
Recommended load impedance:	47 kΩ~100 kΩ
Compliance (dynamic):	12×10 ⁻⁶ cm/dyne at 100 Hz
Stylus pressure range:	1.25 ±0.25 g (12.5± 2.5 mN)
Weight:	6 g (cartridge only)
Replacement stylus:	EPS-24CS

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

- The power supply for this unit varies depending upon the areas. Also, the parts used for power supply are different. So, refer to the circuit diagram and the replacement parts list.
- ★ 220V (50/60 Hz) for Continental Europe.
- ★ 240V (50/60 Hz) for United Kingdom and Australia.
- ★ 110V-120V/220V-240V (50/60 Hz) for other areas. [XA] for other areas is provided with voltage selector.

Deutsch

TECHNISCHE DATEN

Änderungen der technischen Daten vorbehalten.

Die angegebenen Gewichts- und Abmessungsdaten sind ungefähre Werte.

■ Allgemeine Daten

Stromversorgung:	220V, 50/60 Hz Wechselstrom
Leistungsaufnahme:	2 W
Abmessungen (B×H×T):	43 × 9,3 × 37,5 cm Maximale Höhe bei geöffnetem Oberteil (Staubabdeckung). 43 × 36 × 41 cm
Gewicht:	3,3 kg

■ Plattenspieler

Typ:	Automatischer Plattenspieler Rückführautomatik Stopautomatik Riemenantrieb
Antrieb:	Gleichstrommotor
Motor:	Gleichstrom-Servo-Steuerung
Antriebsregel-Methode:	Aluminium-Spritzguß
Plattenteller:	Durchmesser 30,4 cm
Plattenteller- Drehzahlen:	33-1/3 und 45 U/min
Gleichlaufschwankungen:	0,045% WRMS (JIS C5521) ±0,06% Spitze (IEC 98A bewertet)
Rumpel-Geräusch- spannungsabstand:	-70 dB (IEC 98A bewertet)

■ Tonarm

Typ:	Statisch balancierter, gerader Tonarm Tonabnehmersystem vom Einsteck-Typ
Effektive Länge:	230 mm
Überhang:	15 mm

Spurfehlwinkel:	2°32' bei der Einlaufrille einer 30 cm-Platte 0°32' bei der Auslaufrille einer 30 cm-Platte
Effektive Masse:	7,5 g (ohne Tonabnehmer)
Auflagekraft- Einstellbereich:	1,25 g
Zulässiger Ton- abnehmer- Gewichtsbereich:	6 g

■ Tonabnehmer

Typ:	Stereo-Magnet-Tonabnehmer mit Einpunkt-Aufhängungssystem Ganzlamellenkern
Magnetkreis:	10 Hz bis 30 kHz
Frequenzgang:	20 Hz bis 10 kHz ±1 dB 2,5 mV bei 1 kHz 5 cm/s. Null-zu-Spitze, lateral [7 mV bei 1 kHz 10 cm/s. Null- zu-Spitze, 45° (DIN 45 500)]
Ausgangsspannung:	22 dB bei 1 kHz Innerhalb 2 dB bei 1 kHz
Kanaltrennung:	
Kanalabweichung:	
Empfohlene Endimpedanz:	47 kΩ~100 kΩ
Nachgiebigkeit (dynamisch):	12 × 10 ⁻⁶ cm/dyn bei 100 Hz
Auflagekraft- Einstellbereich:	1,25 ±0,25 g (12,5 ±2,5 mN)
Gewicht:	6 g (nur Tonabnehmer)
Ersatznadel:	EPS-24CS

Français

CARACTERISTIQUES

Les spécifications sont susceptibles d'être modifiées sans préavis.

Le poids et les dimensions donnés sont approximatifs.

■ Généralités

Alimentation:	220V, 50 ou 60 Hz
Consommation:	2 W
Dimensions: (L×H×P)	43 × 9,3 × 37,5 cm Hauteur maximum lorsque le dessus (couvercle protège-poussière) est ouvert. 43 × 36 × 41 cm
Poids:	3,3 kg

■ Platine de lecture

Type:	Platine automatique Retour automatique Arrêt automatique
Système d'entraîne- ment:	Entraînement par courroie
Moteur:	Moteur C.C.
Groupe de réglage:	Servocommande à C.C.
Plateau de lecture:	En aluminium moulé sous pression Diamètre 30,4 cm

Vitesses de rotation:	33-1/3 et 45 t.p.m
Pleurage et scintille- ment:	0,045% de valeur efficace (JIS C5521) ±0,06% de crête (IEC 98A Pondéré)
Ronflement:	-70 dB (IEC 98A Pondéré)

■ Bras de lecture

Type:	Bras de lecture rectiligne statiquement équilibré Système de cellule de lecture à connecteur enfichable.
Longueur effective:	230 mm
Porte-à-faux:	15 mm
Angle d'erreur de piste:	En deçà de 2°32' au sillon extérieur d'un disque de 30 cm En deçà de 0°32' au sillon intérieur d'un disque de 30 cm

Masse réelle:	7,5 g (sans la cellule pick-up)	10 cm/s., zéro à vitesse 45° de crête [DIN 45 500])
Plage de réglage de la pression d'appui:	1,25 g	Séparation des canaux: 22 dB à 1 kHz
Gamme du poids des cellules pick-up utilisables:	6 g	Equilibrage des canaux: En deçà de 2 dB à 1 kHz
■ Cellule pick-up		Impédance de charge recommandée: 47 kΩ~100 kΩ
Type:	Cellule pick-up stéréo à aimant mobile	Elasticité (dynamique): 12×10^{-6} cm/dyne à 100 Hz
Circuit magnétique:	Noyau entièrement feuilleté	Plage de la force verticale d'appui: $1,25 \pm 0,25$ g ($12,5 \pm 2,5$ mN)
Réponse en fréquence:	10 Hz à 30 kHz 20 Hz à 10 kHz ± 1 dB	Poids: 6 g (cellule seule)
Tension de sortie:	2,5 mV à 1kHz; 5 cm/s., zéro à vitesse latérale de crête (7 mV à 1 kHz)	Pointe de lecture de remplacement: EPS-24CS

Español

ESPECIFICACIONES

Las especificaciones quedan sujetas a cambios sin aviso previo.
El peso y las dimensiones indicados son aproximados.

■ En general

Alimentación de corriente:	220V, 50 Ó 60 Hz
Consumo de corriente:	2 W
Dimensiones: (Ancho×Alto×Prof.)	43 × 9,3 × 37,5 cm Altura máxima cuando la parte de arriba (tapa contra el polvo) está abierta. 43 × 36 × 41 cm
Peso:	3,3 kg

■ Sección del plato giratorio

Tipo:	Plato giratorio automático Retorno automático Parada automática
Método de accionamiento:	Accionamiento por correa
Motor:	Motor de corriente continua
Método de control de accionamiento:	Servocontrol por corriente continua
Platillo del plato giratorio:	Aluminio fundido Diámetro 30,4 cm
Velocidades del plato giratorio:	33-1/3 y 45 rpm
Ululaciones y trémolo:	0,045% WRMS (JIS C5521) $\pm 0,06\%$ cresta (IEC 98A Ponderado)
Ruido de rodadura:	-70 dB (IEC 98A Ponderado)

■ Sección del brazo sonoro

Tipo:	Brazo sonoro recto equilibrado estáticamente Sistema de cartucho con conector enchufable
Longitud efectiva:	230 mm

Proyección:	15 mm
Angulo de error de seguimiento:	Inferior a 2°32' en el surco exterior de un disco de 30 cm Inferior a 0°32' en el surco interior de un disco de 30 cm
Masa efectiva:	7,5 g (sin cartucho)
Radio de ajuste de la presión de la aguja:	1,25 g
Radio de peso de cartucho utilizable:	6 g

■ Sección del cartucho

Tipo:	Cartucho estereofónico de imán móvil
Circuito magnético:	Núcleo totalmente laminado
Respuesta de frecuencia:	10 Hz a 30 kHz 20 Hz a 10 kHz ± 1 dB
Voltaje de salida:	2,5 mV a 1 kHz velocidad lateral de cero a cresta de 5 cm/s [7 mV a 1 kHz Velocidad de 45° de cero a cresta de 10 cm/s (DIN 45 500)]
Separación de canales:	22 dB a 1 kHz
Equilibrio de canales:	Sin exceder 2 dB a 1 kHz
Impedancia de carga recomendada:	47 kΩ a 100 kΩ
Elasticidad (dinámica):	12×10^{-6} cm/dina a 100 Hz
Radio de presión de la aguja:	$1,25 \pm 0,25$ g ($12,5 \pm 2,5$ mN)
Peso:	6 g (cartucho solo)
Aguja de recambio:	EPS-24CS

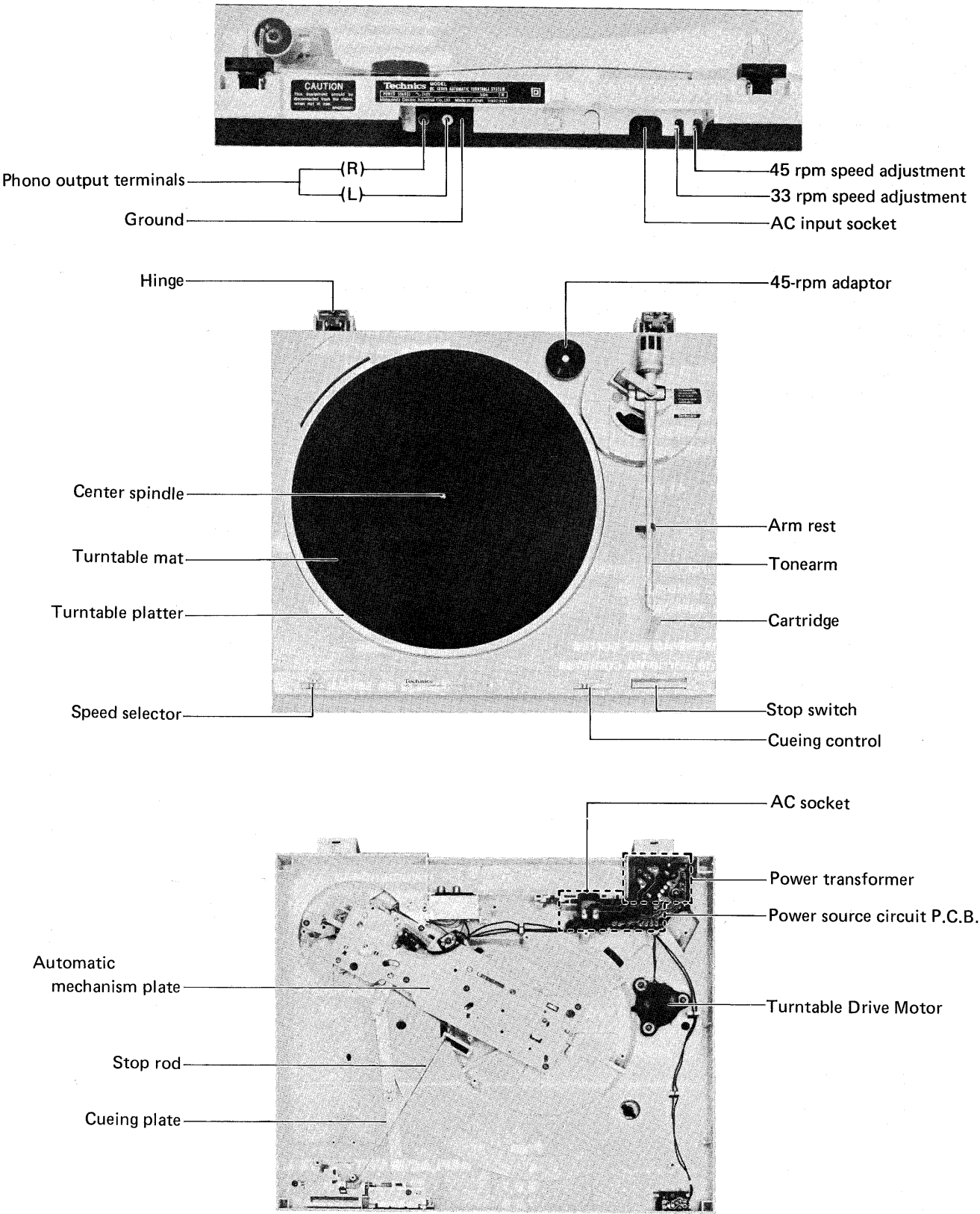
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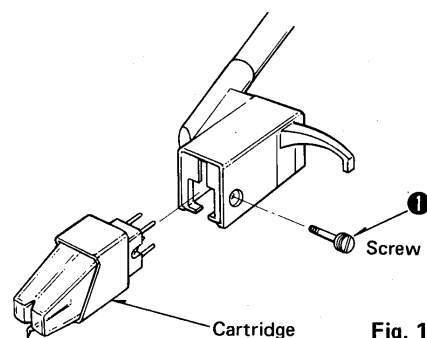
■ LOCATION OF CONTROLS



DISASSEMBLY INSTRUCTIONS

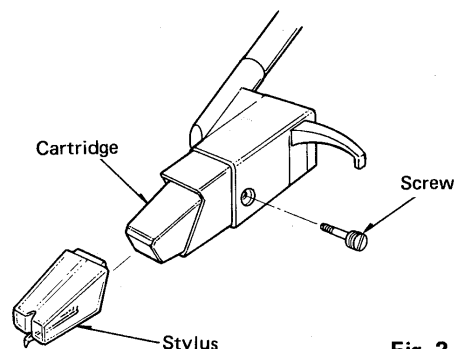
• How to remove the cartridge (Fig. 1)

1. Fix the tonearm on the arm rest.
2. Remove the cartridge setscrew ①.
3. Pull out the cartridge with care not to let the hand touch the stylus tip.
4. When setting the cartridge, match the cartridge pin with the tonearm connector, and completely insert the cartridge and tighten the setscrew.


Fig. 1

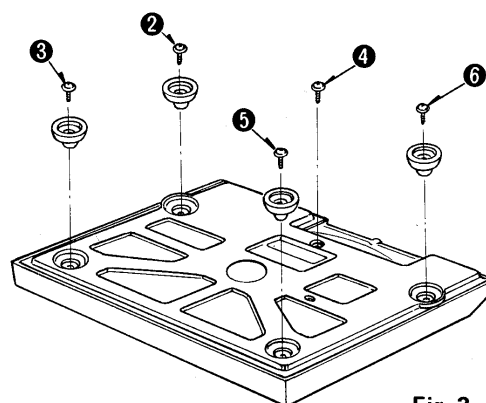
• How to remove the stylus (Fig. 2)

1. Pull out the stylus with care not to touch the stylus tip.
2. When setting the stylus, match the stylus sleeve with the fitting hole in the cartridge body, and completely insert the stylus and make sure that there is no gap between the stylus knob and main body.


Fig. 2

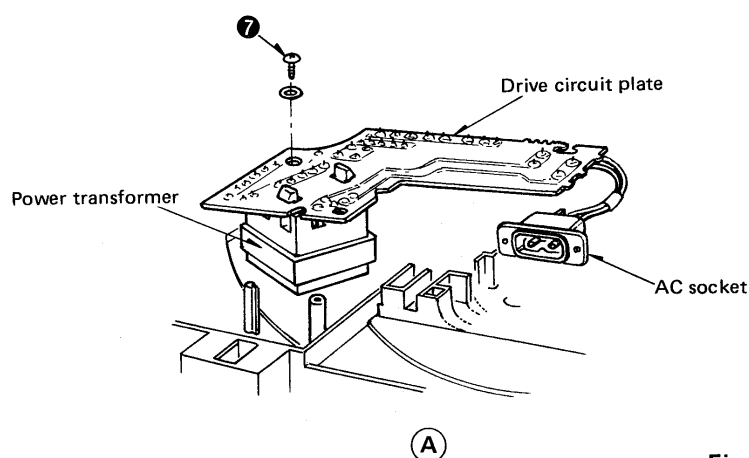
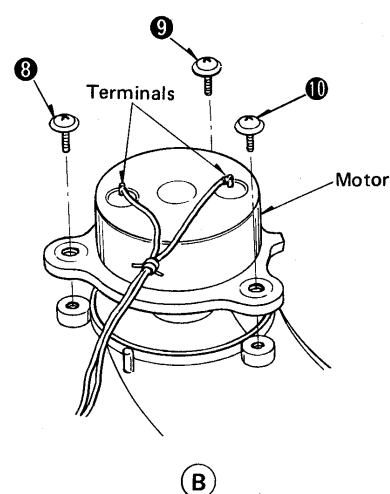
• How to remove the bottom plate (Fig. 3)

1. Fix the tonearm on the arm rest.
2. Remove the turntable seat, belt and turntable.
3. Close the dust cover, and turn over the unit with care.
4. Remove the 5 setscrews [Fig. 3: ② ~ ⑥] of the bottom plate.


Fig. 3

• How to remove the drive circuit P.C.B. (transformer) and motor

1. Remove the bottom plate. (Refer to "How to remove the bottom plate".)
2. Remove the setscrew [Fig. 4 (A): ⑦] of the P.C.B., then the drive circuit P.C.B. (transformer) and AC socket can be removed.
3. To remove the transformer from the drive circuit P.C.B., unsolder the transformer terminals and release the claw to remove the transformer from the P.C.B.
4. To remove the motor, remove the 3 setscrews [Fig. 4 (B): ⑧ ~ ⑩] which secure the main body and motor, and then unsolder the motor terminals.


(A)
Fig. 4

(B)

• How to remove the mechanical board (Fig. 5)

1. Remove the bottom plate. (Refer to "How to remove the bottom plate".)
2. Remove the 5 setscrews [Fig. 5: ⑪ ~ ⑮] of the mechanical board and output terminal shielding plate, and the setscrew ⑯ of the Ground terminal.
3. When fitting the mechanical board, do the following beforehand.
 - (1) Turn the turntable shaft to rotate the main gear until it comes to the no-gear part. (Fig. 6)
 - (2) Shift the cueing lever of the mechanical board to the "cueing up" position. (Fig. 7)

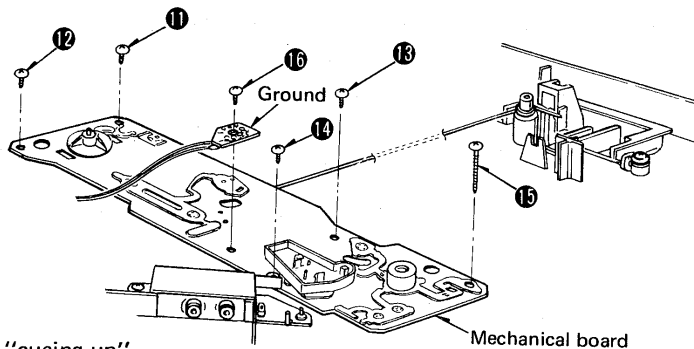


Fig. 5

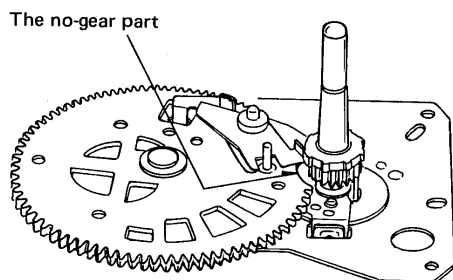


Fig. 6

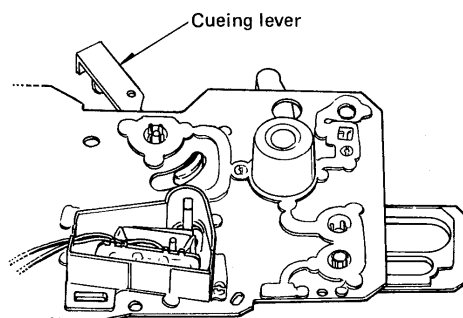


Fig. 7

• How to remove the Pu fixing plate (Fig. 8)

1. Remove the bottom plate. (Refer to "How to remove the bottom plate".)
2. Remove the mechanical board. (Refer to "How to remove the mechanical board".)
3. Remove the setscrew ⑰ of the Pu fixing plate.

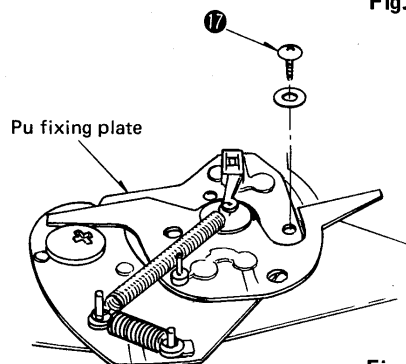


Fig. 8

• How to remove the tonearm (Fig. 9)

1. Remove the Pu fixing plate. (Refer to "How to remove the Pu fixing plate".)
2. Unsolder the 5 Pu leads of output terminal.
3. Remove the 2 setscrews [Fig. 9: ⑱ ~ ⑲] of the lift P.C.B.

Pu lead wiring method

White	L CH (+) terminal
Blue	L CH (-) terminal
Red	R CH (+) terminal
Green	R CH (-) terminal
Black	Ground terminal

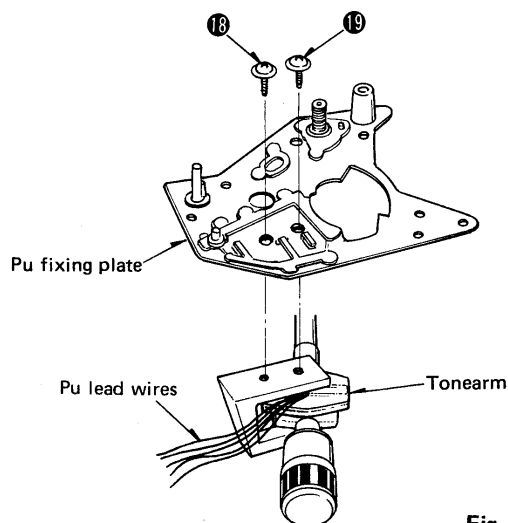


Fig. 9

• How to remove the lift plate (Fig. 10)

1. Remove the Pu fixing plate. (Refer to "How to remove the Pu fixing plate".)
2. Remove the 3 setscrews [Fig. 10: 20 ~ 22] of the lift plate.

• How to remove the arm lift

1. Remove the Pu fixing plate. (Refer to "How to remove the Pu fixing plate".)
2. Remove the lift plate (Refer to "How to remove the lift plate".)
3. Remove the setscrew [Fig. 11: 23] of the arm lift cover.
4. Remove the washer [Fig. 11: 24] from the arm lift rod.
5. Pull out the arm lift rod in the direction of the arrow.

Caution:

- ★ Be sure to adjust the arm lift height. (Refer to page 7.)

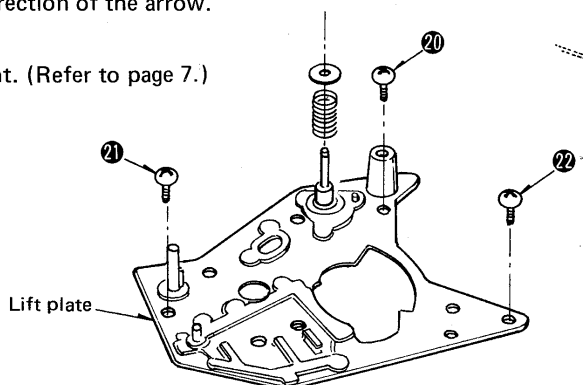


Fig. 10

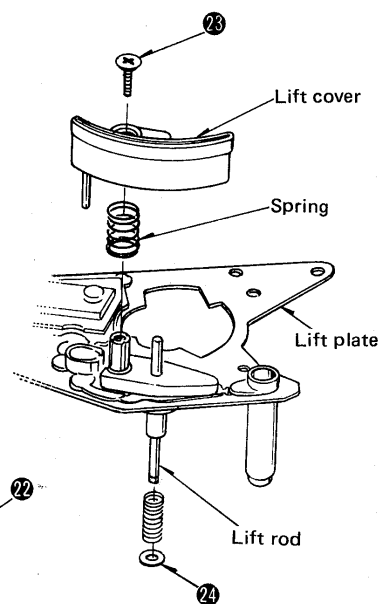


Fig. 11

MEASUREMENTS AND ADJUSTMENT English

• Arm-lift height adjustment

The arm-lift height (distance between the stylus tip and the record surface when the cueing control is at the "▼" position) has been adjusted at the factory to approximately 4 to 6 mm (5/32" ~ 1/4"). (Fig. 12)

If the clearance is too narrow or too wide, turn the adjustment screw clockwise or counterclockwise. (Fig. 13)

Clockwise rotation

—distance between the record and stylus tip is decreased.

Counterclockwise rotation

—distance between the record and stylus tip is increased.

• Adjustment of automatic return position (Fig. 14)

(Remove the rubber cap.)

1. Put the stylus protector on the cartridge.
2. Move the tonearm toward the center of the record.

The auto-return adjustment screw will appear.

If the tonearm tends to return to the arm rest before the play has finished.

—turn counterclockwise.

If the tonearm fails to return after the final groove.

—turn clockwise.

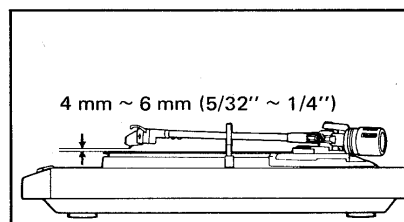


Fig. 12

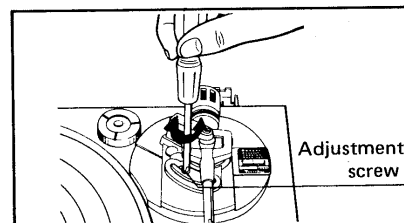


Fig. 13

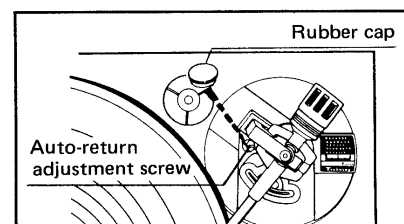


Fig. 14

● Adjustment of rotational speed

1. Place the set on a player bench.
2. Set the speed selector switch to the "33" position.
3. Turn the VR101 with a screwdriver from the back of the set to the rated rotation (33—1/3 rpm) and check the rotation with a strobe while adjusting the speed. (Fig. 15)
4. Set the speed selector switch to the "45" position.
5. Turn the VR102 with a screw driver from the back of the set to the rated rotation (45 rpm) and check the rotation with a strobe while adjusting the speed. (Fig. 15)

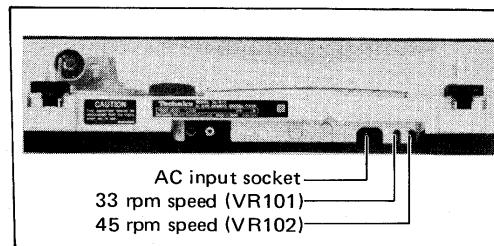


Fig. 15

MESSUNGEN UND JUSTIERUNGEN

Deutsch

● Justierung der Tonarmlifhöhe

Die Tonarmlifhöhe, d.h. der Abstand zwischen Nadelspitze und Schallplattenoberfläche bei Liftsteuerungs-Position "▼", wurde werkseitig auf ca. 4–6 mm eingestellt. (Abb. 12)

Falls der Abstand zu groß oder zu klein ist, drehen Sie die Justierschraube im Uhrzeigersinn oder entgegen dem Uhrzeigersinn. (Abb. 13)

Drehung im Uhrzeigersinn

—Der Abstand zwischen der Platte und der Nadelspitze wird kleiner.

Drehung entgegen dem Uhrzeigersinn

—Der Abstand zwischen der Platte und der Nadelspitze wird größer.

● Justierung des Abschaltpunktes der Automatik (Abb. 14)

(Die Gummikappe abnehmen)

1. Setzen Sie zuerst den Nadelschutz auf.
2. Führen Sie den Tonarm gegen die Plattenmitte. Die Justierschraube für den Abschaltpunkt der Automatik wird dann sichtbar.

Falls der Tonarm zu früh zurückkehrt.

—Entgegen dem Uhrzeigersinn drehen.

Falls der Tonarm nach Erreichen der Auslaufrille nicht zurückkehrt.

—Im Uhrzeigersinn drehen.

● Justierung der Drehzahl

1. Setzen das Gerät auf dem Plattenspieler-Reparaturtisch.
2. Stellen den Drehzahl-Wahlschalter auf die "33" — position.
3. Drehen VR 101 mit einem Schraubenzieher in der Hinterseite des Gerätes, bis die Neundrehzahl (33—1/3 U/min) unter gleichzeitiger Beobachtung mit stroboskopbestätigt ist. (Abb. 15)
4. Stellen den Drehzahl-Wahlschalter auf die "45" — Position.
5. Drehen VR102 mit einem Schraubenzieher in der Hinterseite des Gerätes, bis die Neundrehzahl (45 U/min) gleicherweise mit einem stroboskop bestätigt ist. (Abb. 15)

MESURAGES ET RÉGLAGES

Français

● Mise au point de la hauteur de l'élévateur du bras

La hauteur de l'élévateur du bras (distance entre l'extrémité de la pointe de lecture et la surface du disque, lorsque la commande de pose et de relevage est à la position "▼") a été réglée en usine sur approximativement 4 à 6 mm. (Fig. 12)

Si l'écartement est trop étroit ou trop large, tourner la vis de réglage dans le sens des aiguilles d'une montre ou dans le sens contraire. (Fig. 13)

Rotation dans le sens des aiguilles d'une montre.

—La distance entre la surface du disque et l'extrémité de la pointe de lecture diminue.

Rotation dans le sens contraire des aiguilles d'une montre.

—La distance entre la surface du disque et l'extrémité de la pointe de lecture augmente.

● Mise au point de la position de retour automatique (Fig. 14)

(Retirer le capuchon en caoutchouc.)

1. Placer le capot protecteur de la pointe de lecture sur la cellule pick-up.
2. Déplacer le bras de lecture vers le centre du disque. Alors, la vis de réglage du retour automatique apparaîtra.

Si le bras de lecture tend à revenir, vers le support du bras avant que l'audition ne soit terminée.

—tourner dans le sens contraire des aiguilles d'une montre.

Si le bras de lecture ne peut revenir en arrière après le dernier sillon.

—tourner dans le sens des aiguilles d'une montre.

● Réglage de la vitesse rotationnelle

1. Placer l'appareil sur une table de dépannage pour électrophone.
2. Régler le commutateur sélecteur de vitesse sur la position "33".
3. Adjuster VR 101 avec un tournevis à partir de l'arrière de l'appareil jusqu'à ce que la vitesse nominale de rotation (33 t/p.m.) soit obtenue tout en la vérifiant par l'intermédiaire du stroboscope. (Fig. 15)
4. Régler le commutateur sélecteur de vitesse sur la position "45".
5. Adjuster VR102 avec un tournevis jusqu'à ce que la vitesse nominale de rotation (45 t/p.m.) soit obtenue tout en la vérifiant par l'intermédiaire du stroboscope. (Fig. 15)

● Ajuste de la altura de elevación del brazo

La altura de elevación del brazo (o sea, la distancia entre la punta de la aguja y la superficie del disco cuando el control de colocación está en la posición "▼") ha sido regulada en la fábrica aproximadamente entre 4 y 6 mm. (Fig. 12)

En caso que la distancia fuese demasiado abundante o demasiado escasa, girar el tornillo de ajuste hacia la derecha o hacia la izquierda (Fig. 13)

Rotación hacia la derecha

— reduce la distancia entre el disco y la punta de la aguja.

Rotación hacia la izquierda

— aumenta la distancia entre el disco y la punta de la aguja.

● Ajuste de la posición para retorno automático (Fig. 14)

(Quitar la tapita de goma.)

1. Colocar la protección de la aguja en el cartucho.
2. Mover el brazo sonoro hacia el centro del disco.

Con ello, aparecerá el tornillo de ajuste del retorno automático.

Cuando el brazo sonoro fienda a volver a su apoyo antes de terminar la ejecución:

— **Girar hacia la izquierda.**

En caso que el brazo sonoro no vuelva después de haber tocado el último surco del disco:

Girar hacia la derecha.

● Ajuste de velocidad rotacional

1. Colocar el aparato sobre un banco de reparaciones.
2. Poner el selector de velocidad en la posición "33".
3. Girar el VR101 con un destornillador por detrás del aparato hasta la rotación nominal (33-1/3) y verificar la rotación con un estroboscopio mientras se ajuste la velocidad. (Fig. 15)
4. Poner el selector de velocidad en la posición "45".
5. Girar el VR102 con un destornillador por detrás del aparato hasta la rotación nominal (45 r.p.m.) y verificar la rotación con un estroboscopio mientras se ajuste la velocidad. (Fig. 15)

● Cueing Knob Repair Parts Supply Division

1. The cueing knob mechanism for this unit has been available in 2 types as shown below.
2. Repair parts of new type will be supplied. (Fig 16.)

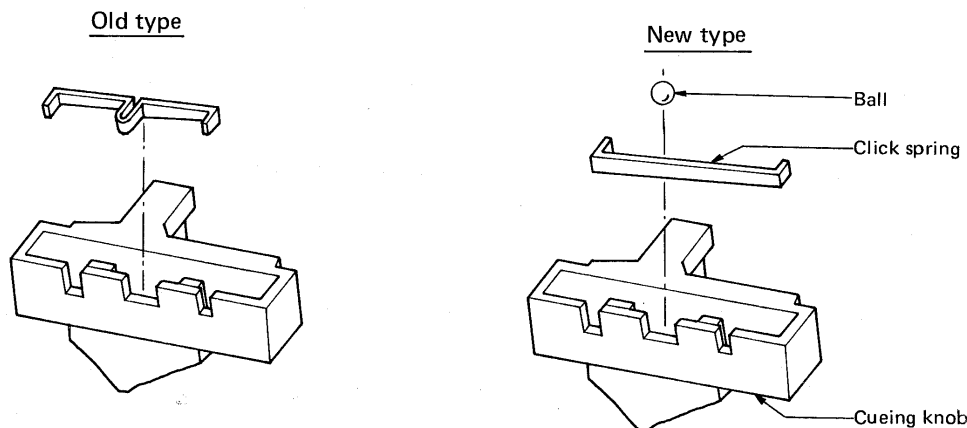


Fig 16.

3. New type included the ball, click spring and cuing knob in a single body.
4. When replacing the cuing knob, set it up as shown in Fig 17.
5. Repair part No SFKTZ15R04R (for ball, click spring and knob in our body.)
6. After replacing the knob, apply grease as shown in Fig 18.

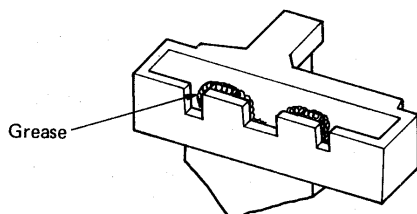


Fig. 18

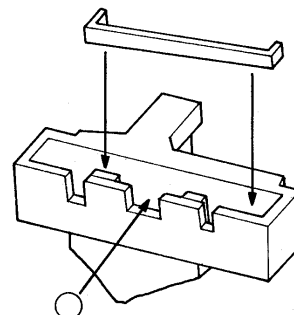
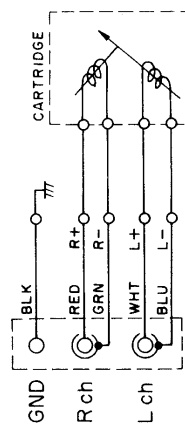
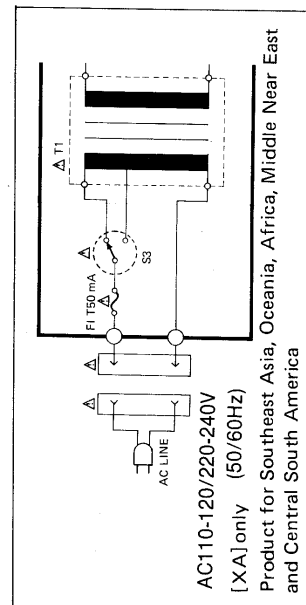
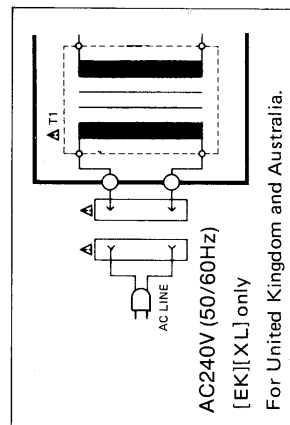
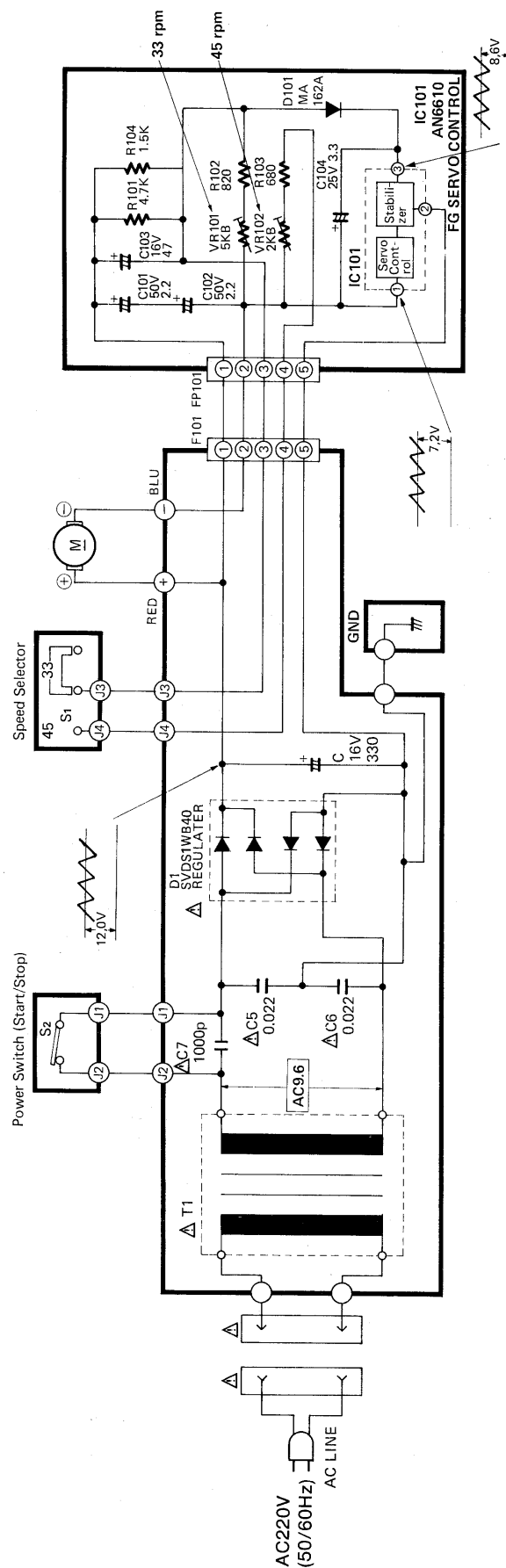
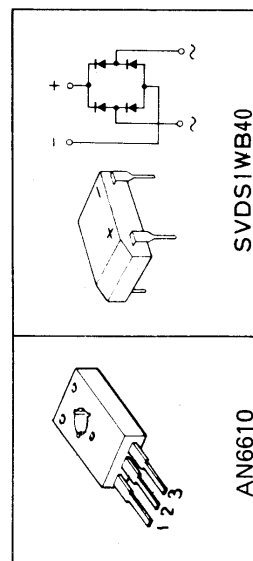


Fig. 17

(This schematic diagram may be modified at any time with the development of new technology.)



- **Terminal guide of IC and diodes**

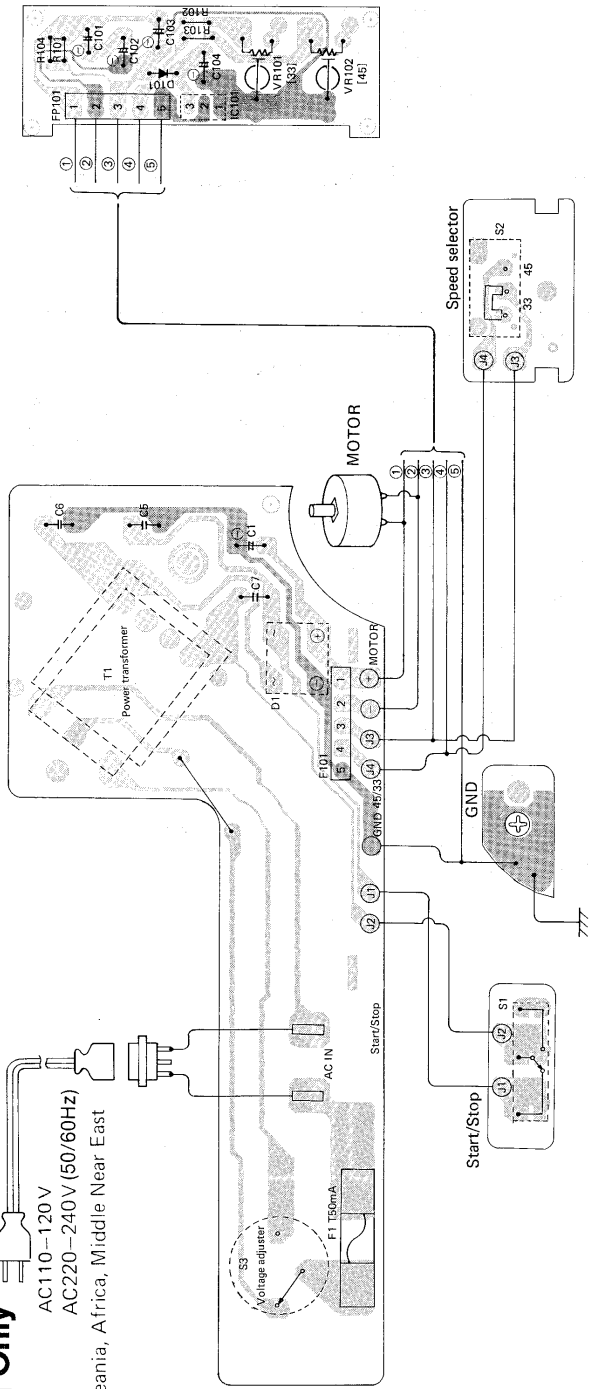


1. **S1**: Power (Arm) switch in "on.. position.

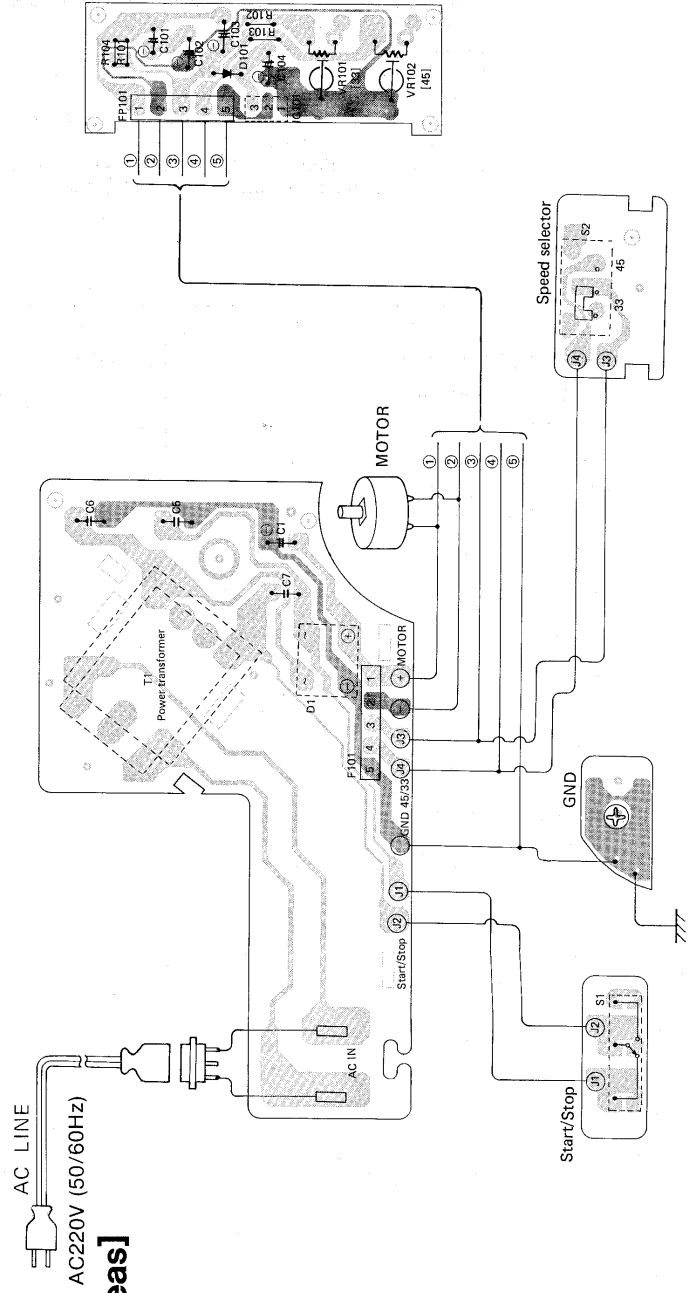
1. **S1** : Power (Arm) switch in "on..." position.
2. **S2** : Speed selector switch in "**33-1/3 rpm**" position
33-1/3 rpm $\longleftrightarrow$ 45 rpm
3. **S3**: Voltage selector switch in "220~240V" position
4. The value and waveform in ☐ are of the reference voltage for the turntable rotation (33-1/3 rpm) of this unit, measured by DC voltmeter (high impedance) and oscilloscope on the basis of chassis.

[XA] Only

AC LINE
AC110—120V
AC220—240V (50/60Hz)
Product for Southeast Asia, Oceania, Africa, Middle Near East
and Central South America.



[Other Areas]



REPLACEMENT PARTS LIST

- Notes:**
- Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
 - Important safety notice:
Components identified by Δ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.
 - Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.

- The "S" mark is service standard parts and may differ from production parts.
- $\square$ -marked parts are used for black only, while $\bigcirc$ -marked parts are for silver type only.
- Parts other than $\square$ - and $\bigcirc$ -marked are used for both black and silver types.

Black type model No.: SL-B210 (K)

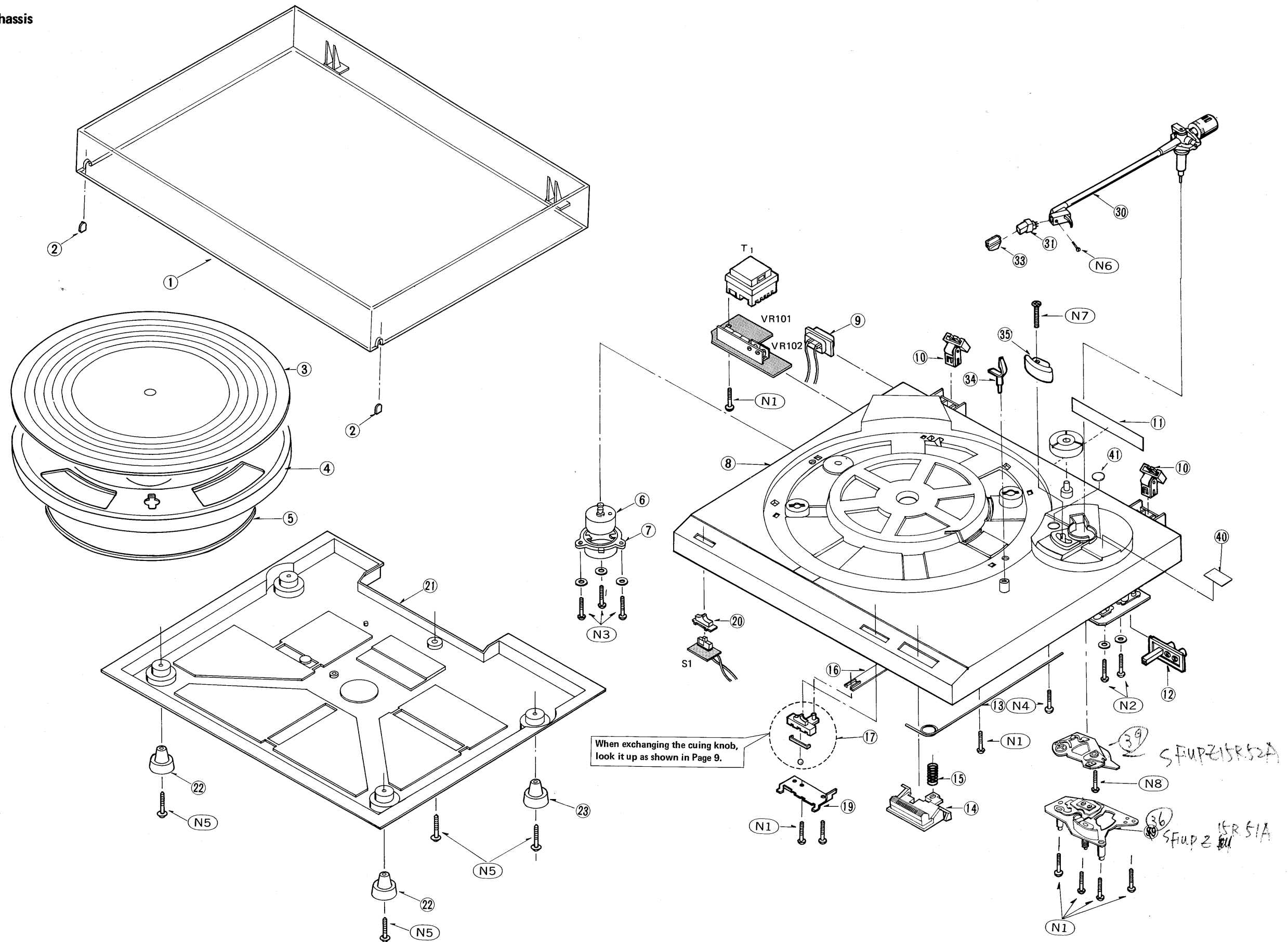
Ref. No.	Part No.	Description
INTEGRATED CIRCUIT		
IC101	AN6610	Servo Control
DIODES		
D1 D101	Δ SVDS1WB40 S MA162A	Rectifier Diode
VARIABLE RESISTORS		
VR101	EVN51AA00B53	Speed Adjustment 5K Ω (B)
VR102	EVN51AA00B23	Speed Adjustment 2K Ω (B)
SWITCHES		
S1 S2 S3	SFDSHSW0739 Δ SFDSSS5GLP (XA)only SFDSHXW02066	Speed Selector on/off Voltage Adjuster
FUSE		
F1	(XA)only XBA2C005TIW	50mA 250V
POWER TRANSFORMER		
T1 T1 T1	(EK) SLTF6648 (XA) SLT35K63E [Other Areas] SLT35K59E	Power Source Power Source Power Source
RESISTORS		
R101	ERD25FJ472	Carbon 4.7K Ω 1/4W $\pm$ 5%
R102	ERD25FJ821	Carbon 820 Ω 1/4W $\pm$ 5%
R103	ERD25FJ681	Carbon 680 Ω 1/4W $\pm$ 5%
R104	ERD25FJ152	Carbon 1.5K Ω 1/4W $\pm$ 5%

Ref. No.	Part No.	Description
CAPACITORS		
C1	ECEA1CS331	Electrolytic 330 μ F 16V
C5.6	Δ ECKD1H223MD	Ceramic 0.022 μ F 50V $\pm$ 2%
C7	ECKD2H102MD	Ceramic 0.001 μ F 500V $\pm$ 20%
C101.102	ECEA50Z2R2	Electrolytic 2.2 μ F 50V
C103	ECEA1ES470	Electrolytic 47 μ F 25V
C104	ECEA50Z3R3	Electrolytic 3.3 μ F 50V
CABINET and CHASSIS PARTS		
1	SFADZ15R01	Dust Cover (1)
2	SFGZZ15R01	Cushion Rubber, Dust Cover (2)
3	SFTGZ15R01	Turntable Mat (1)
4	SFTEZ15R01	Turntable Platter (1)
5	SFGBZ15R01	Belt (1)
6	SFMHZ15R01E	Motor Ass'y (1)
7	SFUMZ15R01	Cover, Motor (1)
8	$\bigcirc$ SFACZ15R01	Cabinet (Silver) (1)
8	$\square$ SFACZ15R21	Cabinet (Black) (1)
9	(XA) SFDJHSC0491	Socket, AC Power (1)
9	(EK) SFDJHSC0492	Socket, AC Power (1)
9	[Other Areas] SFDJHSC0505	Socket, AC Power (1)
10	SFATZ15R01	Hinge (2)
11	(EK) SFNNZ15G01	Name Plate (1)
11	(E),(EC) SFNNZ15S01	Name Plate (1)

Ref. No.	Part No.	Description
CABINET and CHASSIS PARTS		
11	(XA) SFNNZ15X01	Name Plate (1)
11	[Other Areas] SFNNZ15R01	Name Plate (1)
12	SFDJZ15R01	Socket, Phono Input (1)
13	SFUZZ15R01	Rod, Stop (1)
14	SFKTZ15R01	Knob, Stop (1)
15	SFQHZ15R01	Spring, Stop Knob (1)
16	SFUPZ15R03	Plate, Cueing (1)
17	SFKTZ15R04R	Knob, Cueing (1)
19	SFUPZ15R05	Plate, Cueing Knob (1)
20	SFKTZ15R02	Knob, S'peed Selector (1)
21	SFAUZ15R01	Bottom Board (1)
22	SFGAZ15R01	Insulator, Front (2)
23	SFGAZ15R02	Insulator, Rear (2)
	SFGZZ15R02	Rubber (2)
tone ARM and ARM BASE		
30	$\bigcirc$ SFPAMZ1501A	Tonearm Ass'y (Silver) (1)
30	$\square$ SFPAMZ1502A	Tonearm Ass'y (Black) (1)
31	EPC-P24S	★Cartridge (1)
33	EPS-24CS	★Stylus (1)
33	SFCNC02301	Cover, Stylus (1)
34	SFKUZ15R01	Arm Rest (1)
35	SFUMZ15R58	Cover, Arm Lift (1)
36	SFUPZ15R51A	Lift Base Ass'y (1)
37	SFQAZ15R51	Spring, Arm Lift (1)
38	SFQAZ15R52	Spring, Arm Lift (1)
39	SFUPZ15R52A	Arm Base (1)
40	SFKKZ15R01	Plate, Canceller (1)
41	$\bigcirc$ SFGK170-01	Cap, Rubber (Silver) (1)
41	$\square$ SFGK171F01	Cap, Rubber (Black) (1)

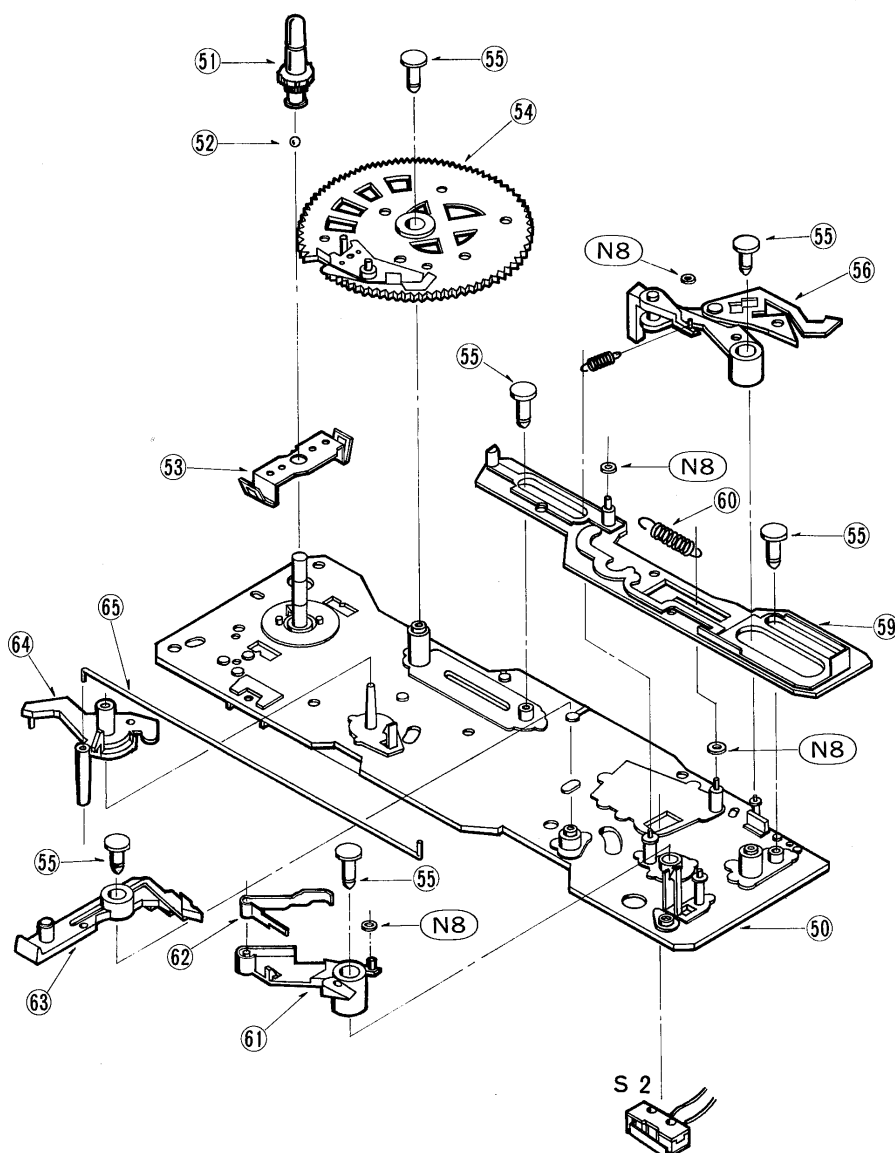
EXPLODED VIEWS

Cabinet and chassis



EXPLODED VIEWS

● Automatic mechanism plate



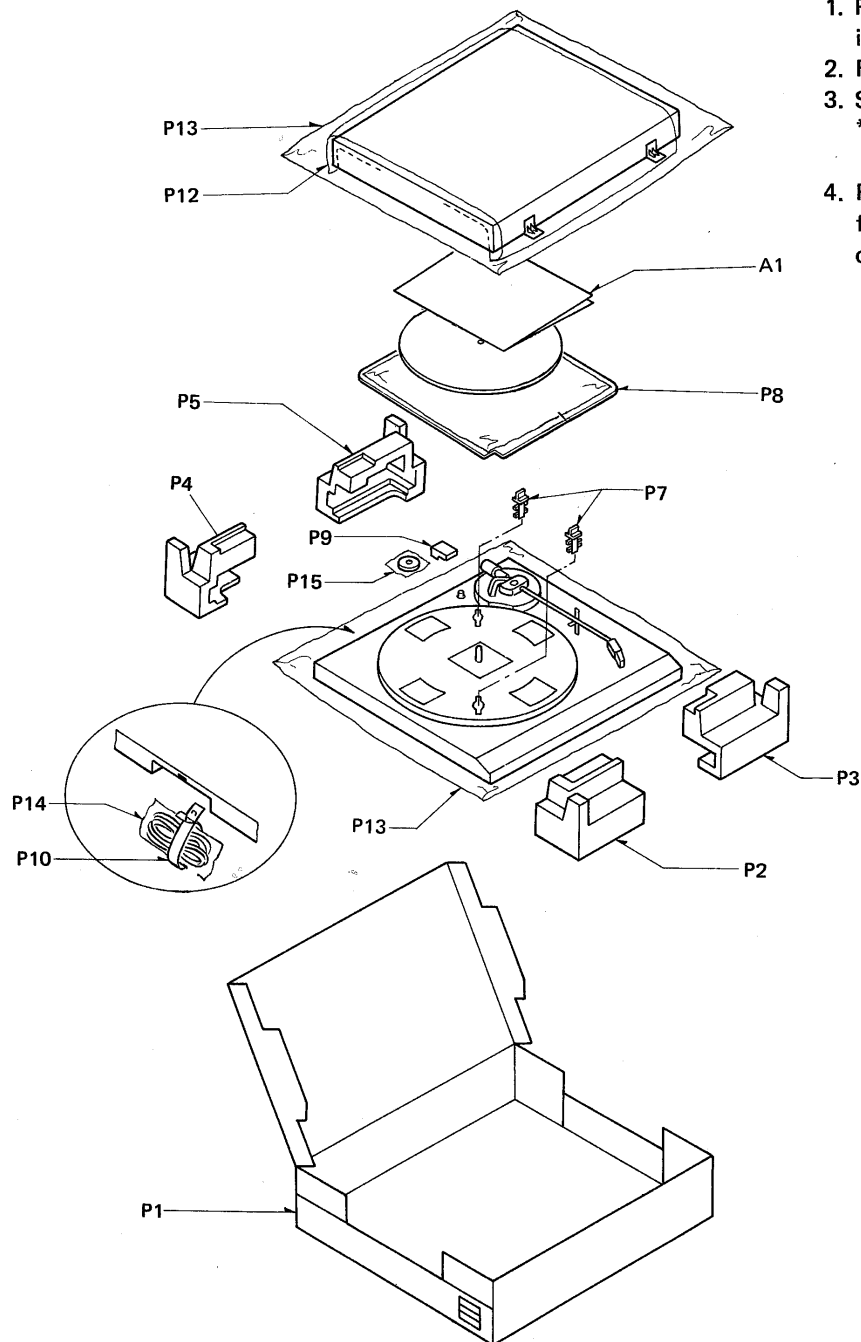
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
AUTOMATIC MECHANISM ASS'Y			AUTOMATIC MECHANISM ASS'Y			ACCESSORIES		
50	SFUKZ15R51E	Plate, Automatic Mechanism (1)	63	SFUMZ15R51	Lever, Cueing (1)	A1	[EK] SFNUZ15G01	Instruction Book (1)
51	SFTUZ15R51E	Turntable Shaft Ass'y (1)	64	SFUMZ15R52	Connector, Actuating (1)	A1	[EG] SFNUZ15R01	Instruction Book (1)
52	SFYB-5-32	Ball (1)	65	SFQSZ15R51	Rod, Actuating (1)	A1	[EF] SFNUZ15F01	Instruction Book (1)
53	SFUPZ15R55	Base, Turntable Shaft (1)	SCREWS and WASHERS			A1	[EI] SFNUZ15I01	Instruction Book (1)
54	SFUGZ15R51E	Main Gear Ass'y (1)	N1	S XTV3+8BFN	Screw (13)	A1 [Other Areas]	SFNUZ15S01	Instruction Book (1)
55	SFUMZ15R56	Pin (6)	N2	XYN3+F12	Screw, Tonearm (2)	A2	SFDHC05N01	Phono Cord (1)
56	SFUMZ15R54E	Lever Ass'y (1)	N3	SFXGB33N01	Screw, Motor (3)	A3	SFDLZ15R01	Ground Wire (1)
57	SFQHZ15R52	Spring (1)	N4	XTV3+30J	Screw (1)	A4	SFWE212-01	45r.p.m Adaptor (1)
58	SFQHZ15R53	Spring (1)	N5	XTW3+14QFYR	Screw, Bottom Board (5)	A5	[EK]S△ RJA43Z	AC Cord (1)
59	SFUBZ15R51	Plate, Drive (1)	N6	SFPEVOP301	Tapping, Cartridge (1)	A5	[XA]S△ QFC1103	AC Cord (1)
60	SFQHZ15R54	Spring (1)	N7	XTS3+16FFZ	Tapping, Arm Lift (1)	A5 [Other Areas]	RJA20Z	AC Cord (1)
61	SFUMZ15R60	Cam, Cueing (1)	N8	SFXWZ15R51	Washer (1)	A6	[XA]only△ SFDK119118	2P Plug (1)
62	SFQPZ15R51	Spring Plate (1)						

PACKINGS

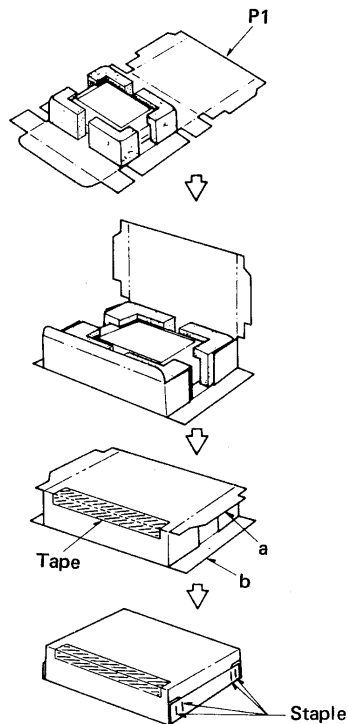
Ref. No.	Part No.	Description
PACKING PARTS		
P1 (EF) ○	SFHPZ15F01	Carton Box (Silver) (1)
P1	SFHPZ15R01	Carton Box (Silver) (1)
[Other Areas] ○		
P1 (EF) □	SFHPZ15F21	Carton Box (Black) (1)
P1	SFHPZ15R21	Carton Box (Black) (1)
[Other Areas] □		
P2	SFHHZ15R01	Pad, Front Left (1)
P3	SFHHZ15R02	Pad, Front Right (1)

Ref. No.	Part No.	Description
PACKING PARTS		
P4	SFHHZ15R03	Pad, Rear Left (1)
P5	SFHHZ15R04	Pad, Rear Right (1)
P6	SFHDZ15R01	Pad, Turntable (1)
P7	SFHKZ15R01	Platter (1)
P8	SFHDZ15R01	Clamper, Turntable (1)
P9	SFHZZ15R01	Platter (1)
P10	SFHZZ15R02	Platter (1)
P11	SFYF30B35	Pad, Turntable Mat (1)

Ref. No.	Part No.	Description
PACKING PARTS		
P12	SFHZD03M01	Sheet (1)
P13	SFYH60X60	Polyethylene, Unit Dust Cover (2)
P14	SFYH17X16	Polyethylene, AC Cord (1)
P15	SFYF05A06	Polyethylene, 45 Adaptor (1)
P16 [XA] only	SFYF09A15	Polyethylene, 2P Plug (1)



1. Place the unit (with cushions attached) as illustrated.
2. Fold the flaps according to the line marks.
3. Seal the top with adhesive tape.
* Use gum tape or adhesive cloth tape of 50mm wide at least.
4. For the edges, first fold the flap "a" and then flap "b", and staple. Remember to staple only flap "b". (Use 15 or 16mm staple)



* Stapling positions are shown below.

