

Service Manual

Supplement



Turtable System SL-1200MK2

[M], [MC],

[E], [EK], [XL], [EG], [EB], [EH],

[EF], [Ei], [XA], [PA], [PE], [PC]

SL-1210MK2

[E], [EG], [EH]

Areas

- * [M] is available in the U.S.A.
- * [MC] is available in Canada.
- * [E] is available in Switzerland and Scandinavia.
- * [EK] is available in United Kingdom.
- * [XL] is available in Australia.
- * [EG] is available in F.R. Germany.
- * [EB] is available in Belgium.
- * [EH] is available in Holland.
- * [EF] is available in France.
- * [Ei] is available in Italy.
- * [XA] is available in Southeast Asia, Oceania, Africa, Middle Near East and Central South America.
- * [PA] is available in far East PX.
- * [PE] is available in European Military.
- * [PC] is available in European Audio Club.

*SL-1200MK2 is the model for silver type.

*SL-1210MK2 is the model for black type of SL-1200MK2.

Please use this manual together with the service manual for Model No. SL-1200MK2/1210MK2.

English

Inclusive SM &
Changes

Specifications

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

■ General

Power supply: 120V, AC 60 Hz (For [M], [MC] areas)
~ 110-120/220-240V, 50 or 60 Hz
(For other areas)

Power consumption: 14 W (For [M], [MC] areas)
13.5 W (For other areas)

Dimensions: 45.3 x 16.2 x 36 cm
(17-27/32" x 6-19/64" x 14-11/64")

Weight: 12.5 kg (27.6 lb)

Turntable section

Type: Quartz direct drive
Manual turntable

Drive method: Direct drive

Motor: Brushless DC motor

Turntable platter: Aluminum diecast
Diameter 33.2 cm (13-5/64")
Weight 2 kg (4.4 lb)

Turntable speeds: 33-1/3 rpm and 45 rpm

Starting torque: 1.5 kg · cm (1.3 lb · in)

Build-up characteristics: 0.7 s. from standstill to 33-1/3 rpm

Braking system: Electronic brake

Wow and flutter: 0.01% WRMS*
0.025% WRMS (JIS C5521)
± 0.035% peak (IEC 98A Weighted)

* This rating refers to turntable assembly alone, excluding effects of record, cartridge or tonearm, but including platter.
Measured by obtaining signal from built-in frequency generator of motor assembly.

Rumble: -56 dB (IEC 98A Unweighted)
-78 dB (IEC 98A Weighted)

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SL-1200MK2/1210MK2

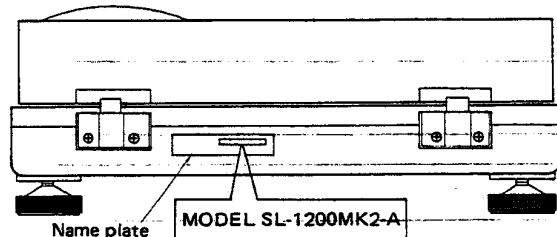
■ Tonearm section

| | |
|-------------------------------------|---|
| Type: | Universal |
| Effective length: | 230 mm (9-1/16") |
| Arm height adjustment range: | 0 – 6 mm |
| Overhang: | 15 mm (19/32") |
| Effective mass: | 12 g (without cartridge) |
| Offset angle: | 22° |
| Friction: | Less than 7 mg (lateral, vertical) |
| 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) |

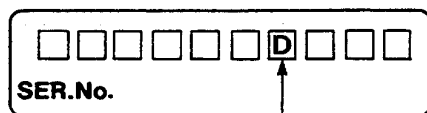
| | |
|---|---|
| Stylus pressure adjustment range: | 0 – 2.5 g |
| Applicable cartridge weight range: | 6 – 10 g 13.5 – 17.5 g (including headshell) |
| (with auxiliary weight): | 9.5 – 13 g 17 – 20.5 g (including headshell) |
| (with shell weight): | 3.5 – 6.5 g 11 – 14 g (including headshell) |
| Headshell weight: | 7.5 g |

Notes

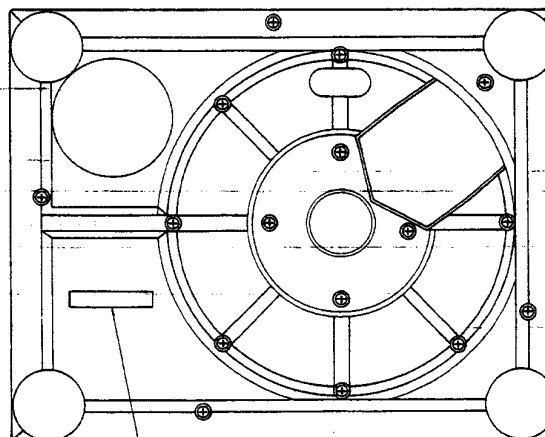
- ★ To improve the performance of SL-1200MK2/1210MK2, the bottom structure and circuit are changed in the course of production.
- ★ After the change, SL1200MK2–A/1210MK2–A is indicated in the name plate as the model of the set. It is discriminated from before-change set by –A. Also, check that the present change is of the sets after the change mark  shown in the serial No. sheet attached to the bottom and carton box.
- ★ This supplement service manual contains the bottom plate disassembly procedure, change part No., circuit diagram, P.C.B. and block diagrams. The other contents are the same as for the service manual of SL-1200MK2/1210MK2 already issued.
- ★ Sets with cartridge (EPC-207C) are included in those for same areas.
- ★ Since the power transformer fitting method is different for sets with serial number sheet change mark , refer to the development plan on page 8.



Serial No. sheet



Change mark



Serial No. sheet

Deutsch

TECHNISCHE DATEN

Änderungen der technischen Daten vorbehalten.
Die angegebenen Gewichts- und Abmessungsdaten sind ungefähre Werte.

■ Allgemeine Daten

| | |
|---------------------------|---|
| Stromversorgung: | ~ 110-120/220-240 V, 50/60 Hz Wechselstrom |
| Leistungsaufnahme: | 13,5 W |
| Abmessungen: | |
| (B x H x T): | 45,3 x 16,2 x 36 cm |
| Gewicht: | 12.5 kg |

■ Plattenspieler

| | |
|-----------------------|--|
| Typ: | Manueller Quarz-Direktantrieb- Plattenspieler |
| Antrieb: | Direktantrieb |
| Motor: | Kollektorloser Gleichstrommotor |
| Plattenteller: | Aluminium-Spritzguß Durchmesser 33,2 cm Gewicht 2 kg |

| | |
|----------------------------------|--|
| Plattenteller-Drehzahlen: | 33-1/3 und 45 U/min |
| Anlaufdrehmoment: | 1,5 kg · cm |
| Drehzahl-Hochlaufzeit: | 0,7 s. vom Stillstand auf 33-1/3 U/min |
| Bremssystem: | Elektronische Bremse |
| Gleichlaufschwankungen: | 0,01% WRMS* 0,025% WRMS (JIS C5521) ± 0,035% Spitze (IEC 98A bewertet) |

* Diese Nennleistung bezieht sich auf das Laufwerk-Bauteil allein, ausschließlich Einflüsse von Schallplatte, Tonabnehmer oder Tonarm, aber einschließlich Plattenteller.
Gemessen anhand von Signalen vom eingebauten Frequenzgenerator des Motorbauteils.

| | |
|---|--|
| Rumpel-Geräuschspannungsabstand: | –56 dB (IEC 98A unbewertet) –78 dB (IEC 98A bewertet) |
|---|--|

■ Tonarm

| | | | |
|-------------------------|--|--------------------------------|---|
| Typ: | Universal-Tonarm | Auflagekraft- | |
| Effektive Länge: | 230 mm | Einstellbereich: | 0 – 2,5 g |
| Tonarmhöhe- | | Zulässiger Tonabnehmer- | |
| Einstellbereich: | 0 – 6 mm | Gewichtsbereich: | 6 – 10 g |
| Überhang: | 15 mm | | 13,5 – 17 g (einschließlich Tonarmkopf) |
| Effektive Masse: | 12 g (ohne Tonabnehmer) | (mit Zusatz- | |
| Spurfehlwinkel: | 2°32' bei der Einlaufrille einer 30 cm-Platte 0°32' bei der Auslaufrille einer 30 cm-Platte | Gegengewicht): | 9,5 – 13 g |
| | | | 17 – 20,5 g (einschließlich Tonarmkopf) |
| Kröpfungswinkel: | 22° | Gewichtsbereich: | 3,5 – 6,5 g |
| Lagerreibung: | Weniger als 7 mg (horizontal, vertikal) | (mit Zusatzgewicht) | 11 – 14 g (einschließlich Tonarmkopf) |
| | | Tonarmkopf-Gewicht: | 7,5 g |

Français

CARACTERISTIQUES

Les spécifications sont susceptibles d'être modifiées sans préavis.
Le poids et les dimensions donnés sont approximatifs.

■ Généralités

| | |
|-----------------------------------|--|
| Alimentation: | Alternatif 110-120/220-240 V, 50 ou 60 Hz |
| Consommation: | 13,5 W |
| Dimensions: (L x H x P) | 45,3 x 16,2 x 36 cm |
| Poids: | 12,5 kg |

■ Platine de lecture

| | |
|---|--|
| Type: | Entaînement direct à quartz Platine manuelle |
| Système d'entraînement: | Entraînement direct |
| Moteur: | Moteur C.C. sans balai |
| Plateau de lecture: | Aluminium moulé sous pression Diamètre 33,2 cm Poids 2 kg |
| Vitesses de rotation: | 33-1/3 et 45t/p.m. |
| Couple de démarrage: | 1,5 kg · cm |
| Caractéristiques d'augmentation: | 0,7 s. (rotation de 90°) à 33-1/3 t/p.m. |
| Système de freinage: | Frein électronique |
| Pleurage et scintillement: | 0,01% de valeur efficace* 0,025% de valeur efficace (JIS C5521) ± 0,35% de crête (IEC 98A Pondéré) |

*Ce régime nominal se rapporte à l'ensemble du tournedisque seul, excluant les effets du disque, de la cellule pick-up ou de bras de lecture, mais comprenant le plateau.
Mesuré par l'obtention d'un signal provenant du générateur de fréquences incorporé de l'ensemble du moteur.

| | |
|--------------------|------------------------------|
| Ronflement: | –56 dB (IEC 98A Non pondéré) |
| | –78 dB (IEC 98A Pondéré) |

■ Bras de lecture

| | |
|---|---|
| Type: | Bras de lecture universel |
| Longueur effective: | 230 mm |
| Portée du réglage de la hauteur de bras: | 0 – 6 mm |
| Porte-à-faux: | 15 mm |
| Massa réelle: | 12 g (sans la cellule pick-up) |
| 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 22° |
| Angle de décalage: | |
| Frottement: | Moins de 7 mg (latéral et vertical) |
| Plage de réglage de la pression d'appui: | 0 – 2,5 g |
| Gamme du poids de la cellule pick-up utilisable: | 6 – 10 g 13,5 – 17,5 g (y compris la coque porte-cellule) |
| (avec contrepoids auxiliaire): | 9,5 – 13 g 17 – 20,5 g (y compris la coque porte-cellule) |
| (avec contrepoids de la cellule): | 3,5 – 6,5 g 11 – 14 g (y compris la coque porte-cellule) |
| Poids de la cellule: | 7,5 g |

ESPECIFICACIONES

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

■ En general

| | |
|-----------------------------------|---------------------------------|
| Alimentación de corriente: | ~ 110-120/220-240 V, 50 ó 60 Hz |
| Consumo de corriente: | 13,5 W |
| Dimensiones: | 45,3 x 16,2 x 36 cm |
| (Ancho x Alto x Prof.) | |
| Peso: | 12,5 kg |

■ Sección del plato giratorio

| | |
|--|---|
| Tipo: | Plato giratorio manual de accionamiento directo por cuarzo |
| Método de accionamiento: | Accionamiento directo |
| Motor: | Motor de corriente continua sin escobillas |
| Platillo del plato giratorio: | Aluminio fundido Diámetro 33,2 cm Peso 2 kg. |
| Velocidades del plato giratorio: | 33-1/3 y 45 rpm |
| Par motor de arranque: | 1,5 kg · cm |
| Características de establecimiento: | 0,7 s. (a partir de reposo) hasta 33-1/3 rpm |
| Sistema de frenado: | Freno electrónico |
| Ululaciones y trémolo: | 0,01% WRMS* 0,025% WRMS (JIS C5521) ± 0,035% cresta (IEC 98A Ponderado) |

*Estas características se refieren únicamente al conjunto del plato giratorio, con exclusión de los efectos provenientes del disco, cartucho o del brazo sonoro, incluyendo, empero, el platillo. La medida fue tomada por medio de la señal obtenida del generador de frecuencia incorporado del conjunto del motor.

| | |
|---------------------------|-------------------------------|
| Ruido de rodadura: | -56 dB (IEC 98A No Ponderado) |
| | -78 dB (IEC 98A Ponderado) |

■ Sección del brazo sonoro

| | |
|---|--|
| Tipo: | Brazo sonoro universal |
| Longitud efectiva: | 230 mm |
| Radio de ajuste de altura del brazo: | 0 - 6 mm |
| Parte saliente: | 15 mm |
| Masa efectiva: | 12 g. (sin cartucho) |
| Angulo de descentramiento: | 22° |
| Fricción: | Menos de 7 mg. (en sentido lateral y vertical) |
| 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 |
| Radio de ajuste de la presión de la aguja: | 0 a 2,5 g. |
| Radio de peso de cartucho utilizable: | 6 a 10 g. 13,5 a 17,5 g. (incluyendo la cápsula de la cabeza) |
| (con contrapeso de balance de reserva): | 9,5 a 13 g. 17 a 20,5 g. (incluyendo la cápsula de la cabeza) |
| (con contrapeso de la cápsula): | 3,5 a 6,5 g. 11 a 14 g. (incluyendo la cápsula de la cabeza) |
| Peso de la cápsula de la cabeza: | 7,5 g |

CHANGES

■ DISASSEMBLY INSTRUCTIONS

- How to remove the bottom cover and bottom base.

1. Remove the turntable mat and turntable.
2. Turn over the body on a soft cloth taking care not to damage the dust cover.
3. Remove the insulators and the 21 setscrews (Fig. 1 : ①, ②, ③) of the bottom cover.
4. Remove the 6 setscrews (Fig. 2 : ④) of the bottom base.

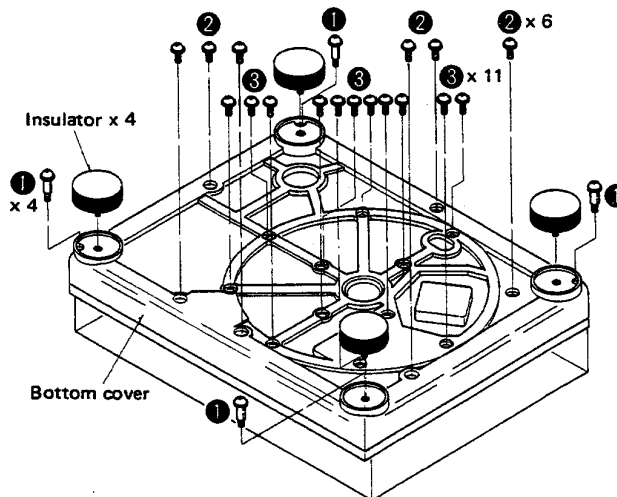


Fig. 1

Supplement

● How to remove the hinge case

1. Remove the bottom cover. (Refer to "How to remove the bottom cover".)
2. Remove the 4 setscrews (Fig. 2 : ⑤) of the hinge case bracket.
3. Remove the 4 setscrews (Fig. 2 : ⑥) of the hinge case.

Note: The other disassembly procedure are the same as for before-change sets.

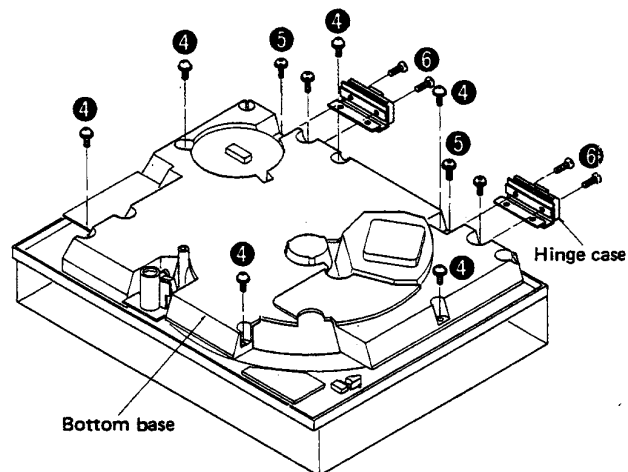


Fig. 2

■ REPLACEMENT PARTS LIST

Notes:

1. This parts list mentions only the difference between before and after change of SL-1200MK2/1210MK2.
2. Ⓚ-marked parts are used only for SL-1210MK2 (black type). And ○-marked parts are used for SL1200MK2 (silver type).
3. Parts other than Ⓚ- and ○-marked are used for both SL-1210MK2 and SL-1200MK2.
4. The "Ⓢ" mark is service standard parts and may differ from production parts.

Areas

- * [M] is available in the U.S.A.
- * [MC] is available in Canada.
- * [E] is available in Switzerland and Scandinavia.
- * [EK] is available in United Kingdom.
- * [XL] is available in Australia.
- * [EG] is available in F.R. Germany.
- * [EB] is available in Belgium.
- * [EH] is available in Holland.
- * [EF] is available in France.
- * [Ei] is available in Italy.
- * [XA] is available in Southeast Asia, Oceania, Africa, Middle Near East and Central South America.
- * [PA] is available in far East PX.
- * [PE] is available in European Military.
- * [PC] is available in European Audio Club.

| Ref. No. | Change of Part No. | | Part Name & Description | Per Set (Pcs.) | Remarks |
|---------------------------|-------------------------------|--------------------------------------|-----------------------------------|----------------|---------|
| | SL-1200MK2 (Before Change) | SL-1200MK2/1210MK2 (After Change) | | | |
| INTEGRATED CIRCUIT | | | | | |
| IC302 | SVITC4011BP | MN4011B | NAND Gate | 1 | |
| TRANSISTOR | | | | | |
| Q1 | 2SD389A-Q | 2SD1265 | Regulator | 1 | |
| DIODES | | | | | |
| D1 | SVDS1RBA40 | SVDS1RBA20Z | Rectifier | 1 | △ |
| D201, 202 | SVDSR-105C | SV DPR3902S-9 | Speed Indicator | 2 | |
| D203 ~ 206 | SVDEBR5505S | SVDSLH54VT3 | Strobe | 4 | |
| D401 | SVDGL-9PG2 | SVDGL-9NG2 | Pitch Indicator | 1 | |
| CRYSTAL | | | | | |
| X201 | SVQU306115 | SVQMS4193 | 4.193 MHz, Oscillator | 1 | |
| VARIABLE RESISTORS | | | | | |
| VR301 | EVMH2GA00B53 | EVMH1GA00B23 | Pitch Control Adjustment, 2kΩ (B) | 1 | |
| VR303 | EVBJ05C19ABE | SFDZ122N11 | Pitch Control | 1 | |
| SWITCHES | | | | | |
| S203 | SFDSSS5GL13C | SFDSSS01GL13 | Start/Stop | 1 | |
| S601 | SFDSSS5GL13S | SFDSSS5GL13P | Power | 1 | △ |
| TRANSFORMER | | | | | |
| T1 | SLT60EU7B | SLT66DTL3A [M] | Power Source | 1 | △ |
| T1 | SLT60E31C | SLT66DT14C [MC] | Power Source | 1 | △ |
| T1 | SLTF5900 | SLT66DTE13A [Other areas] | Power Source | 1 | △ |

SL-1200MK2/1210MK2

| Ref. No. | Change of Part No. | | Part Name & Description | Per Set (Pcs.) | Remarks |
|----------------------------------|-------------------------------|--------------------------------------|---------------------------|----------------|---------|
| | SL-1200MK2 (Before Change) | SL-1200MK2/1210MK2 (After Change) | | | |
| RESISTORS | | | | | |
| R4 | ERD25FJ561 | ERD25FJ471 | Carbon, 1/4W, 470Ω | 1 | Ⓢ |
| R209 | ERD25TJ154 | ERD25TJ334 | Carbon, 1/4W, 330kΩ | 1 | Ⓢ |
| R211 | ERD25FJ103 | ERD25FJ472 | Carbon, 1/4W, 4.7kΩ | 1 | Ⓢ |
| R212 | ERD25FJ121 | ERD25FJ151 | Carbon, 1/4W, 150Ω | 1 | Ⓢ |
| R222 | Addition | ERD25FJ391 | Carbon, 1/4W, 390Ω | 1 | Ⓢ |
| R301 | ERO25CKF3301 | ERO25CKF2701 | Metal Film, 1/4W, 2.7kΩ | 1 | Ⓢ |
| R304 | ERD25FJ152 | ERD25FJ561 | Carbon, 1/4W, 560Ω | 1 | Ⓢ |
| R401 | Addition | ERD50FJ152 | Carbon, 1/2W, 1.5kΩ | 1 | Ⓢ |
| R601 | ERD25FJ4R7 | ERD50FJ4R7 | Carbon, 1/2W, 4.7Ω | 1 | Δ Ⓢ |
| CAPACITORS | | | | | |
| C5, 6 | Addition | ECQM1223KZ | Polyester, 125V, 0.022μF | 1 | Δ |
| C104 ~ 107 | ECQM1H104KZ | ECQM1H104JZ | Polyester, 50V, 0.1μF | 4 | Ⓢ |
| C109, 110 | ECQM1H104KZ | ECQM1H104JZ | Polyester, 50V, 0.1μF | 2 | Ⓢ |
| C111 | ECQM1H562KZ | ECQM1H562JZ | Polyester, 50V, 0.0056μF | 1 | Ⓢ |
| C204 | ECQM1H473KZ | ECQM1H473JZ | Polyester, 50V, 0.047μF | 1 | Ⓢ |
| C210 | ECQM1H224KZ | ECQM1H224JZ | Polyester, 50V, 0.22μF | 1 | Ⓢ |
| C211 | ECQM1H473KZ | ECQM1H473JZ | Polyester, 50V, 0.047μF | 1 | Ⓢ |
| C217 ~ 219 | Addition | ECKD1H104ZF | Ceramic, 50V, 0.1μF | 1 | Ⓢ |
| C301 | ECQK1123FZ | ECQK1333GZ | Polyester, 125V, 0.033μF | 1 | |
| C302 | ECQK1123FZ | ECQK1682GZ | Polyester, 125V, 0.0068μF | 1 | |
| C305 | ECQM1H122KZ | ECQM1H122JZ | Polyester, 50V, 0.0012μF | 1 | Ⓢ |
| CABINET and CHASSIS PARTS | | | | | |
| 9 | SFUP122-12 | Deletion | ----- | 0 | |
| 10 | SFAC122-01 | SFAC122-01 | Cabinet (Silver) | 1 | ○ |
| | | SFAC124S01 | Cabinet (Black) | 1 | Ⓚ |
| 25 | SFXB122-02 | SFXB122-06 | Boss, Drive | 1 | |
| 33 | SFOA001-02 | SFOA122-03 | Spring | 1 | |
| 36 | SFUP025-01 | SFUP122-16 [M, MC, PA, PE, PC] | Bracket, AC Cord | 1 | |
| | SFUP025X01 | SFUP122X01 [Other areas] | Bracket, AC cord | 1 | |
| 38 | SFUP132-03 | SFGC122-03 | Cushion | 2 | |
| 40 | SFUP122-10 | Deletion | ----- | 0 | |
| 42 | SFKK122-03 | SFKK122-03 | Plate (Silver) | 1 | |
| | | SFKK124S01 | Plate (Black) | 1 | |
| 48 | SFAU122-01 | SFAU122-02 | Bottom Base | 1 | |
| 48-1 | Addition | SFAU122-03 | Bottom Cover | 1 | |
| 49 | SFUP122-05 | SFUP122-23 | Supporter (A), Hinge | 2 | |
| 50 | SFUP122-04 | SFUP122-24 | Supporter (B), Hinge | 2 | |
| 51 | SFUM170-07 | SFUMM02N04 | Case, Hinge | 2 | |
| 55 | SFNN122M01 | SFNN122M10 [M] | Name Plate | 1 | ○ |
| | SFNN122C01 | SFNN122C10 [MC] | Name Plate | 1 | ○ |
| | SFNN122S01 | SFNN122S10 [E] | Name Plate | 1 | ○ |
| | SFNN122L01 | SFNN122G10 [EK, XL] | Name Plate | 1 | ○ |
| | SFNN122X01 | SFNN122X10 [XA] | Name Plate | 1 | ○ |
| | Addition | SFNN122P10 [PA, PE] | Name Plate | 1 | ○ |
| | Addition | SFNN122P11 [PC] | Name Plate | 1 | ○ |
| | SFNN122N01 | SFNN122N10 [Other areas] | Name Plate | 1 | ○ |
| | Addition | SFNN124S10 [E] | Name Plate | 1 | Ⓚ |
| Addition | SFNN124Q10 [EG, EH] | Name Plate | 1 | Ⓚ | |
| 56 | SFX0122-01 | Deletion | ----- | 0 | |
| 57 | SFX0122-02 | Deletion | ----- | 0 | |
| 58 | SFAT122-01A | SFATM02N01A | Hinge | 1 | |

SL-1200MK2/1210MK2

| Ref. No. | Change of Part No. | | Part Name & Description | Per Set (Pcs.) | Remarks |
|----------------------|-------------------------------|--------------------------------------|--------------------------------|----------------|---------|
| | SL-1200MK2 (Before Change) | SL-1200MK2/1210MK2 (After Change) | | | |
| TONEARM PARTS | | | | | |
| 62 | SFPAM18201K | SFPAM18201K | Tonearm Ass'y (Silver) | 1 | ○ |
| | | SFPAM18202K | Tonearm Ass'y (Black) | 1 | Ⓚ |
| 79 | SFPKB17201S | SFPKB17204E | Ring, Arm Base Operation | 1 | |
| 82 | SFGK132-01 | SFGK132-01 | Cap (Silver) | 1 | ○ |
| | | SFGK133S01 | Cap (Black) | 1 | Ⓚ |
| ACCESSORIES | | | | | |
| A1 | SFNU122M01 | SFNU122M06 [M] | Instruction Book | 1 | |
| | SFNU122C01 | SFNU122C06 | Instruction Book | 1 | |
| | SFNU122S01 | SFNU122S01 [E] | Instruction Book | 1 | |
| | SFNU122G01 | SFNU122G01 [EK] | Instruction Book | 1 | |
| | Addition | SFNU122P01 [PA, PE, PC] | Instruction Book | 1 | |
| | SFNU122X01 | SFNU122X01 [Other areas] | Instruction Book | 1 | |
| A2 | SFWE010 | SFWE122-01 | 45 Adaptor | 1 | |
| PACKING PARTS | | | | | |
| P1 | SFHP122C01 | SFHP122C02 [MC, EF] | Carton Box (Silver) | 1 | ○ |
| | | SFHP122M02 [Other areas] | Carton Box (Silver) | 1 | ○ |
| | SFHP122M01 | SFHP124S02 | Carbon Box (Black) | 1 | Ⓚ |
| P9 | Addition | SPB1083 | Polyethylene Bag, Accessories | 2 | |
| P10 | Addition | SPJ15 | Polyethylene Bag, Shell Weight | 1 | |
| P11 | Addition | SFHZD03M01 | Polyethylene Bag, Dust Cover | 3 | |
| P12 | Addition | SFHZ122-01 | Polyethylene Bag, 45 Adaptor | 1 | |
| P13 | Addition | SPP189 | Polyethylene Bag, Cords | 2 | |

■ ADJUSTMENT POINTS

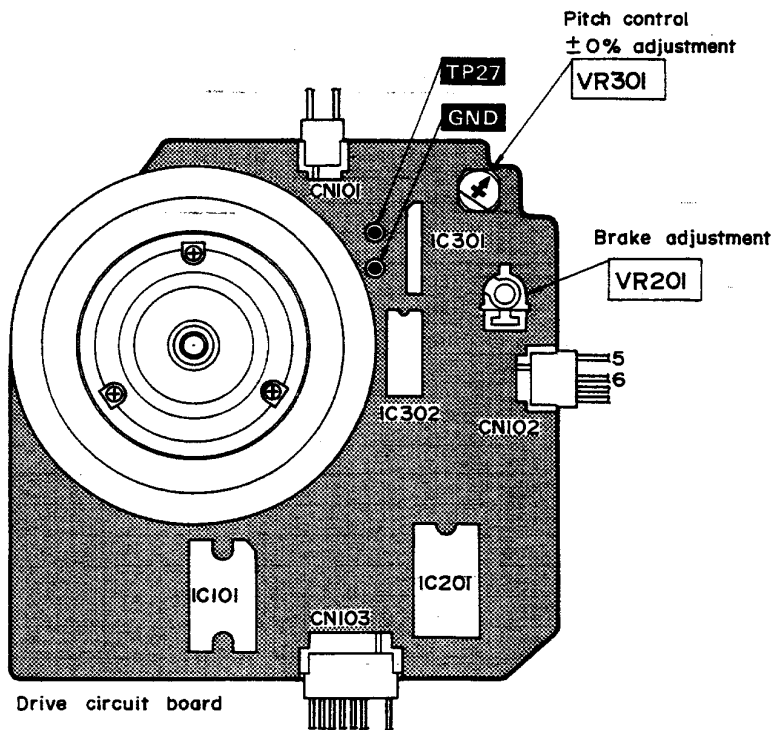


Fig. 3 (Abb. 3)

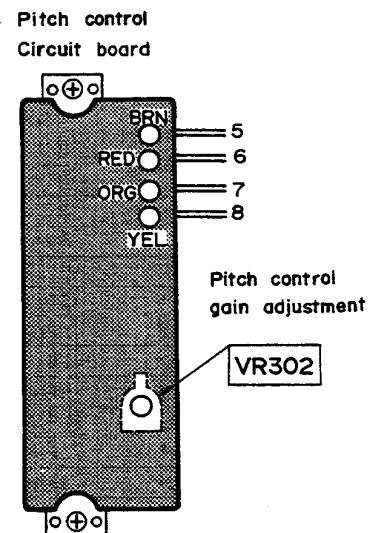


Fig. 4 (Abb. 4)

MEASUREMENTS AND ADJUSTMENTS English

• Conditions of set, and instruments used

1. Remove the panel cover.
2. Remove the bottom cover (when adjusting the pitch control gain).
3. Frequency counter
4. Tester

| | Adjustment | Connection | Parts adjusted | Procedure |
|---|------------------------------------|--|-------------------|--|
| 1 | Pitch control $\pm 0\%$ adjustment | Frequency counter (+) – TP27 (–) – Earth point | VR301 (Fig. 3) | <ol style="list-style-type: none"> 1. Connect the frequency counter and turn the power supply ON. 2. Set the pitch control knob to "0". (Indicator lights up.) 3. Adjust VR301 so that the frequency is $262.08 \text{ kHz} \pm 0.05 \text{ kHz}$. |
| 2 | Pitch control gain adjustment | Tester (+) – CN102 terminal ⑤ (–) – CN102 terminal ⑥ | VR302 (Fig. 4) | <ol style="list-style-type: none"> 1. Set the pitch control knob to "0". 2. Pull out the connector CN102 of drive P.C.B. 3. Connect the tester to terminals ⑤ and ⑥ of connector CN102 on the pitch control P.C.B. side. 4. Adjust VR302 so that the resistance value of the tester is $2.7 \text{ k}\Omega \pm 0.1 \text{ k}\Omega$. |
| 3 | Brake adjustment | _____ | VR201 (Fig. 3) | <ol style="list-style-type: none"> 1. Adjust VR201 so that the rotation at 33 r.p.m. stops within the angle of $90^\circ \sim 120^\circ$ after depressing the stop button. |

MESSUNGEN UND JUSTIERUNGEN Deutsch

• Zustand des Gerätes und zu verwendende Instrumente

1. Die Abdeckplatte entfernen.
2. Die Bodenabdeckung entfernen (wenn die Drehzahlregelungs-Verstärkung justiert werden soll).
3. Frequenzzähler
4. Prüfgerät

| | Justierung | Anschlüsse | Zu justierender Teile | Vorgehen |
|---|--|---|-----------------------|---|
| 1 | $\pm 0\%$ -Justierung des Drehzahlreglers | Frequenzzähler (+) – TP27 (–) – Massepunkt | VR301 (Abb. 3) | <ol style="list-style-type: none"> 1. Frequenzzähler anschließen und Netzschalter einschalten. 2. Drehzahlreglerknopf auf "0" stellen. (Anzeige leuchtet auf.) 3. VR301 so justieren, daß die Frequenz $262,08 \text{ kHz} \pm 0,05 \text{ kHz}$ beträgt. |
| 2 | Justierung der Drehzahlregelungs-Verstärkung | Prüfgerät (+) – CN102 Anschluß ⑤ (–) – CN102 Anschluß ⑥ | VR302 (Abb. 4) | <ol style="list-style-type: none"> 1. Den Drehzahlreglerknopf auf "0" einstellen. 2. Steckverbindung CN102 von der Antriebsplatine herausziehen. 3. Prüfgerät an Anschlüsse ⑤ und ⑥ der Steckverbindung CN102 auf der Drehzahlreglerseite der Platine anschließen. 4. VR302 so justieren, daß der Widerstandswert des Prüfgerätes $2,7 \text{ k}\Omega \pm 0,1 \text{ k}\Omega$ beträgt. |
| 3 | Bremsjustierung | _____ | VR201 (Abb. 3) | <ol style="list-style-type: none"> 1. VR201 so justieren, daß die Rotation bei 33 UPM innerhalb $90^\circ \sim 120^\circ$ nach Drücken der Stop-Taste stoppt. |

MESURAGES ET RÉGLAGES Français

• Conditions de l'appareil et appareils utilisés.

1. Retirer le panneau de protection.
2. Retirer le panneau de protection inférieur (lors de l'ajustement de l'amplification du réglage d'écart).
3. Compteur de fréquence
4. Appareil contrôleur

| | Mise au point | Raccordement | Elements à regler | Marche à suivre |
|---|--|--|-------------------|--|
| 1 | Ajustement de $\pm 0\%$ du réglage d'écart | Compteur de fréquence (+) – TP27 (-) – Point de contact à la terre | VR301 (Fig. 3) | <ol style="list-style-type: none"> 1. Raccorder le compteur de fréquence et mettre en marche l'alimentation. 2. Régler le bouton du réglage d'écart sur "0". (L'indicateur s'éclairera.) 3. Ajuster VR301 de telle sorte que la fréquence soit de 262,08 kHz \pm 0,05 kHz. |
| 2 | Ajustement de l'amplification du réglage d'écart | Appareil contrôleur (+) – Borne CN102 ⑤ (-) – Borne CN102 ⑥ | VR302 (Fig. 4) | <ol style="list-style-type: none"> 1. Régler le bouton de réglage d'écart sur "0". 2. Retirer le connecteur CN102 de la plaquette à circuits imprimés de commande. 3. Raccorder l'appareil contrôleur aux bornes ⑤ et ⑥ du connecteur CN102 sur le côté de la plaquette à circuits imprimés du réglage d'écart. 4. Ajuster VR302 de telle sorte que la valeur de résistance de l'appareil contrôleur soit de 2,7 kΩ \pm 0,1 kΩ. |
| 3 | Ajustement du frein | | VR201 (Fig. 3) | <ol style="list-style-type: none"> 1. Régler VR201 de telle sorte que la rotation à 33 t/p.m. s'arrête en deçà d'un angle de 90° ~ 120° après avoir appuyé sur la touche d'arrêt. |

MEDICIONES Y AJUSTE Español

• Condiciones de aparato e instrumentos usados

1. Remover la cubierta del panel.
2. Remover la cubierta inferior (al ajustar la ganancia de control de altura de los sonidos).
3. Contador de frecuencia
4. Probador

| | Ajuste | Conexión | Piezas ajustadas | Procedimiento |
|---|---|--|-------------------|--|
| 1 | Ajuste $\pm 0\%$ de control de altura | Contador de frecuencia (+) – TP27 (-) – Punto de tierra | VR301 (Fig. 3) | <ol style="list-style-type: none"> 1. Conectar el contador de frecuencia y prender la fuente de alimentación. 2. Ajustar la perilla de control de altura de sonidos a "0". (El indicador se ilumina.) 3. Ajustar VR301 de manera que la frecuencia sea 262,08 kHz \pm 0,05 kHz. |
| 2 | Ajuste de ganancia de control de altura | Probador (+) – Terminal de CN102 ⑤ (-) – Terminal de CN102 ⑥ | VR302 (Fig. 4) | <ol style="list-style-type: none"> 1. Poner el control de altura de sonidos en "0". 2. Sacar el conector CN102 de T.C.I. de accionamiento. 3. Conectar el probador a terminales ⑤ y ⑥ de conector CN102 del lado de T.C.I. de control de altura. 4. Ajustar VR302 de manera que el valor de resistencia del probador sea 2,7 kΩ \pm 0,1 kΩ. |
| 3 | Ajuste de freno | | VR201 (Fig. 3) | <ol style="list-style-type: none"> 1. Ajustar VR201 de manera que la rotación a 33 r.p.m. se pare dentro del ángulo de 90° ~ 120° después oprimir el botón de parada |

RESISTORS AND CAPACITORS

- 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.
 - The "Ⓢ" mark is service standard parts and may differ from production parts.
 - Bracketed indications in Ref. No. column specify the area. Parts without these indications can be used for all area.
 - The unit of resistance is Ω (ohm).
K = 1000 Ω , M = 1000k Ω
 - The unit capacitance is μ F (microfarad).
P = 10⁻⁶ μ F

Areas

- * [M] is available in the U.S.A.
- * [MC] is available in Canada.
- * [E] is available in Switzerland and Scandinavia.
- * [EK] is available in United Kingdom.
- * [XL] is available in Australia.
- * [EG] is available in F.R. Germany.
- * [EB] is available in Belgium.
- * [EH] is available in Holland.
- * [EF] is available in France.
- * [Ei] is available in Italy.
- * [XA] is available in Southeast Asia, Oceania, Africa, Middle Near East and Central South America.
- * [PA] is available in far East PX.
- * [PE] is available in European Military.
- * [PC] is available in European Audio Club.

Numbering System of Resistor

Example

| | | | | |
|------|---------|-------|-----------|-------|
| ERD | 25 | F | J | 101 |
| Type | Wattage | Shape | Tolerance | Value |
| ERX | 2 | AN | J | 2R2 |
| Type | Wattage | Shape | Tolerance | Value |

Numbering System of Capacitor

Example

| | | | | |
|------|---------|-----------------|-----------|-------------|
| ECKD | 1H | 102 | Z | F |
| Type | Voltage | Value | Tolerance | Peculiarity |
| ECEA | 50 | M | R47 | R |
| Type | Voltage | Recuriarity use | Value | Special use |

| Resistor type | Wattage | Tolerance |
|------------------|-----------|--------------|
| ERD: Carbon | 25 : 1/4W | F : \pm 1% |
| ERG: Metal Oxide | 50 : 1/2W | J : \pm 5% |
| ERO: Metal Film | 1A : 1W | |
| ERX: Metal Film | 2A : 2W | |

| Capacitor Type | Voltage | Tolerance |
|---------------------|-----------|---------------------|
| ECEA : Electrolytic | OJ : 6.3V | J : \pm 5% |
| ECEB : Electrolytic | 1C : 16V | K : \pm 5% |
| ECCD : Ceramic | 1E : 25V | M : \pm 20% |
| ECQM : Polyester | 1H : 50V | Z : \pm 80%, -20% |
| ECQU : Polyester | 1 : 100V | |
| ECQF : Polyester | 1A : 125V | |
| ECNC : Polyester | 4A : 400V | |

| Ref. No. | Part No. | Value | Ref. No. | Part No. | Value | Ref. No. | Part No. | Value | Ref. No. | Part No. | Value |
|------------------|--------------|-------|----------|----------------|-------|-------------------|---------------|--------|--------------------|---------------|--------|
| RESISTORS | | | R210 | Ⓢ ERD25TJ183 | 18K | CAPACITORS | | | C210 | Ⓢ ECQM1H224JZ | 0.22 |
| R1 | Ⓢ ERD25FJ562 | 5.6K | R211 | Ⓢ ERD25FJ472 | 4.7K | C1 | ECEB1HU471 | 470 | C211 | Ⓢ ECQM1H473JZ | 0.047 |
| R2 | Ⓢ ERD25FJ682 | 6.8K | R212 | Ⓢ ERD25FJ151 | 150 | C2 | ECEA1EU330 | 33 | C212 | ECEA1HU3R3 | 3.3 |
| R3 | Ⓢ ERD25FJ272 | 2.7K | R213 | Ⓢ ERD25FJ122 | 1.2K | C3 | ECEA1EU220 | 22 | C213 | Ⓢ ECCD1H471K | 470P |
| R4,5 | Ⓢ ERD25FJ471 | 470 | R214 | Ⓢ ERD25TJ223 | 22K | C5,6 | ECQM1223KZ | 0.022 | C214 | ECEA1CU101 | 100 |
| R101 | Ⓢ ERD25FJ103 | 10K | R215 | Ⓢ ERD25FJ472 | 4.7K | C101,102 | ECEA1EU330 | 33 | C215 | ECEA1HU010 | 1 |
| R102 | Ⓢ ERX1ANJ4R7 | 4.7 | R216 | Ⓢ ERD25TJ154 | 150K | C103 | ECEA1EU330 | 33 | C216 | ECEA1CU470 | 47 |
| R103 | Ⓢ ERD25FJ472 | 4.7K | R217 | Ⓢ ERD25TJ223 | 22K | C104,105 | Ⓢ ECQM1H104JZ | 0.1 | C217,218 | ECKD1H104ZF | 0.1 |
| R104 | Ⓢ ERD25TJ473 | 47K | R218 | Ⓢ ERD25FJ102 | 1K | C106,107 | Ⓢ ECQM1H104JZ | 0.1 | C219 | ECKD1H104ZF | 0.1 |
| R105 | Ⓢ ERD25FJ103 | 10K | R219 | Ⓢ ERD25FJ332 | 3.3K | C108 | ECEA1EU101 | 100 | C301 | ECQK1333GZ | 0.033 |
| R106 | Ⓢ ERD25FJ150 | 15 | R220 | Ⓢ ERD25FJ221 | 220 | C109,110 | Ⓢ ECQM1H104JZ | 0.1 | C302 | ECQK1682GZ | 0.0068 |
| R107 | Ⓢ ERX1ANJ1R5 | 1.5 | R221 | Ⓢ ERD25FJ471 | 470 | C111 | Ⓢ ECQM1H562JZ | 0.0056 | C303 | ECEA1HU010 | 1 |
| R108 | Ⓢ ERD25FJ103 | 10K | R222 | Ⓢ ERD25FJ391 | 390 | C112 | ECEA1HU4R7 | 4.7 | C304 | ECEA1CU100 | 10 |
| R109,110 | Ⓢ ERX1ANJ4R7 | 4.7 | R301 | Ⓢ ER025CKF2701 | 2.7K | C201 | ECEA1CU330 | 33 | C305 | Ⓢ ECQM1H122JZ | 0.0012 |
| R201 | Ⓢ ERG1ANJ561 | 560 | R302 | Ⓢ ERD25FJ471 | 470 | C202,203 | ECEA1HU010 | 1 | C306 | ECEA1HU010 | 1 |
| R202 | Ⓢ ERD25FJ103 | 10K | R303 | Ⓢ ERD25FJ822 | 8.2K | C204 | Ⓢ ECQM1H473JZ | 0.047 | C601 [M] | ⚠ ECQF1A473MD | 0.047 |
| R203 | Ⓢ ERD25FJ470 | 47 | R304 | Ⓢ ERD25FJ561 | 560 | C205 | ECEA1JU221 | 220 | C601 (MC) | ⚠ ECQU1A47ME | 0.047 |
| R204 | Ⓢ ERD25FJ272 | 2.7K | R305 | Ⓢ ERD25FJ181 | 180 | C206 | ECEA1HU010 | 1 | C601 (Other areas) | ⚠ ECNC4A473M | 0.047 |
| R205 | Ⓢ ERD25TJ124 | 120K | R306 | Ⓢ ERD25TJ223 | 22K | C207 | Ⓢ ECCD1H101K | 100P | | | |
| R206 | Ⓢ ERD25TJ183 | 18K | R307 | Ⓢ ERD25FJ272 | 2.7K | C208 | Ⓢ ECCD1H220K | 22P | | | |
| R207 | Ⓢ ERD25TJ563 | 56K | R401 | ⚠ Ⓢ ERD50FJ152 | 1.5K | C209 | ECEA1CU101 | 100 | | | |
| R208 | Ⓢ ERD25TJ224 | 220K | R601 | ⚠ Ⓢ ERD50FJ4R7 | 4.7 | | | | | | |
| R209 | Ⓢ ERD25TJ334 | 330K | | | | | | | | | |

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.
 - The parenthesized numbers in the column of description stand for the quantity per set.
 - (K)-marked parts are used only for SL-1210MK2 (black type). And (O)-marked parts are used for SL-1200MK2 (silver type).
 - Parts other than (K) and (O)-marked are used for both SL-1210MK2 and SL-1200MK2.

Areas

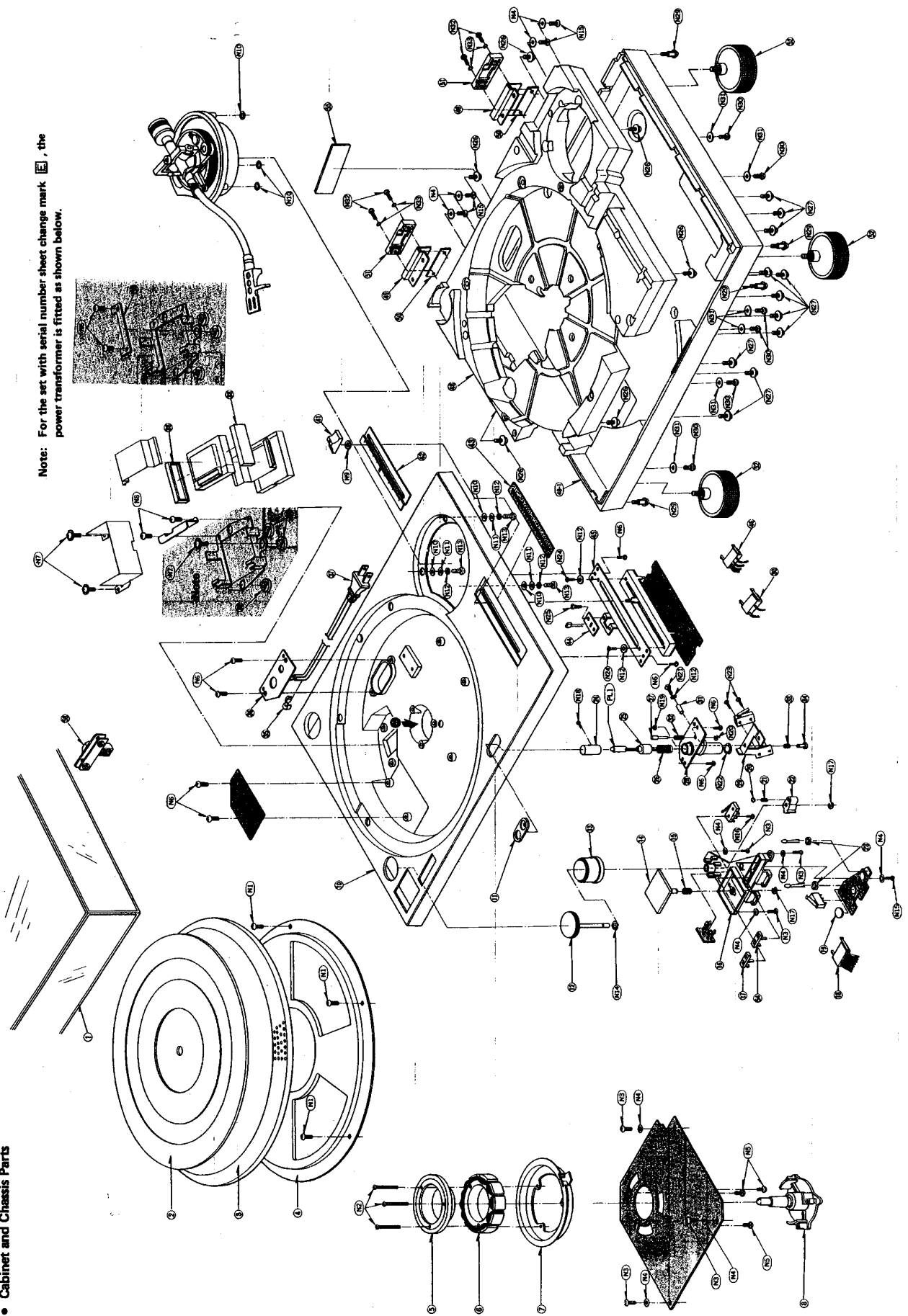
- * [M] is available in the U.S.A.
- * [MC] is available in Canada.
- * [E] is available in Switzerland and Scandinavia.
- * [EK] is available in United Kingdom.
- * [XL] is available in Australia.
- * [EG] is available in F.R. Germany.
- * [EB] is available in Belgium.
- * [EH] is available in Holland.
- * [EF] is available in France.
- * [Ei] is available in Italy.
- * [XA] is available in Southeast Asia, Oceania, Africa, Middle Near East and Central South America.
- * [PA] is available in far East PX.
- * [PE] is available in European Military.
- * [PC] is available in European Audio Club.

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|----------------------------|----------------------|-------------------|---------------------------|-----------------------|---|----------------------|----------------------|--------------------|
| INTEGRATED CIRCUITS | | | CRYSTAL | | | LAMP | | |
| IC101 | AN6675 | Turntable Drive | X201 | SVQMS4193 | 4.193MHz Oscillator | PL1 | Δ SFDN122-01 | Stylus Illuminator |
| IC201 | AN6680 | Turntable Control | VARIABLE RESISTORS | | | TRANSFORMER | | |
| IC301 | AN6682 | Pitch Control | VR201 | (S) EVTS3MA00B54 | Brake Adjustment, 50k Ω (E) | T1(M) | Δ SLT66DTL3A | Power Source |
| IC302 | MN4011B | NAND Gate | VR301 | EVMH1GA00B23 | Pitch Control \pm 0% Adjustment, 2k Ω (E) | T1(MC) | Δ SLT66DT14C | Power Source |
| TRANSISTORS | | | VR302 | (S) EVTS3MA00B54 | Pitch Control Gain Adjustment, 50k Ω (E) | T1(Other areas) | Δ SLT66DTE13E | Power Source |
| Q1 | 2SD1265 | Regulator | VR303 | SFDZ122N11 | Pitch Control | FUSES | | |
| Q2,3 | 2SD637 | Regulator | SWITCHES | | | F1(MC) | Δ XBA1F12NU14 | 125V, 1.2A |
| Q201 | (S) 2SC1846-R | Regulator | S201,202 | EVQP5R04K | Speed Selector | F1 Except for (M,MC) | Δ XBA2C025T1A | 250V, T250mA |
| Q202 | 2SD637 | LED Driver | S203 | SFDSS01GL13 | Start/Stop | F2 Except for (M,MC) | Δ XBA2C10TR0 | 250V, T1A |
| Q203 | (S) 2SC1328-T | FG Amp. | S401 | SFDS2MSL-C | Stylus-Illuminator | | | |
| DIODES | | | S601 | Δ SFDSS5GL13P | Power | | | |
| D1 | Δ SVDS1RBA20Z | Rectifier | S602 Except for (M,MC) | Δ SFDSHXW01317 | Voltage Selector | | | |
| D2 | MA1051 | 5.1V Zener | | | | | | |
| D201,202 | SVDPR3902S-9 | Speed Indicator | | | | | | |
| D203~206 | SVDSLH54VT3 | Strobe | | | | | | |
| D204A | MA162A | Switching | | | | | | |
| D301 | MA1051 | 5.1V Zener | | | | | | |
| D401 | SVDGL-9NG2 | Pitch Indicator | | | | | | |

SL-1200MK2/1210MK2

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|-----------------------------------|-------------|--------------------------------------|-------------------------------|-------------|------------------------------|----------------------|------------|---|
| CHABINET AND CHASSIS PARTS | | | 52 | | | 52 | | |
| 1 | SFAD122-01A | Dust Cover (1) | 52 | SFGC122-02E | Insulator (4) | N31 | XWG3FZ | Washer (6) |
| 2 | SFTG172-01 | Turntable Mat (1) | 54 | SFKT015-02E | Button, Speed (4) | N32 | XSN3+14BVS | Screw (4) |
| 3 | SFTE172-01 | Turntable Platter Ass'y (1) | 55 (M) | SFNN122M10 | Name Plate (1) | N33 | XWA3BFZ | Washer (4) |
| 4 | SFUM172-05 | Cover, Cabinet (1) | 55 (MC) | SFNN122C10 | Name Plate (1) | N34 | SFXG829-1 | Screw (1) |
| 5 | SFMGQ20-01 | Cover, Drive Coil (1) | 55 (E) | SFNN122S10 | Name Plate (1) | N35 | XSN3+8S | Screw (2) |
| 6 | SFMG520-31A | Drive Coil Ass'y (1) | 55 (EK,XL) | SFNN122G10 | Name Plate (1) | N36 | XUC5FT | Circlip (1) |
| 7 | SFMZ172-01E | FG Coil Ass'y (1) | 55 (XA) | SFNN122X10 | Name Plate (1) | N37 | SFPEV17202 | Screw (3) |
| 8 | SFMZQ20-01A | Shaft Ass'y, Turntable (1) | 55 (PA,PE) | SFNN122P10 | Name Plate (1) | N38 | XTN3+25B | Screw (1) |
| 10 | SFAC122-01 | Cabinet (Silver) | 55 (PC) | SFNN122P11 | Name Plate (1) | N39 | SFPEW1100 | Washer (1) |
| 10 | SFAC124S01 | Cabinet (Black) | 55 (Other areas) | SFNN122N10 | Name Plate (1) | N40 | XSN3+6BVS | Screw (4) |
| 11 | SFUM172-04 | Ornament, Stylus Illuminator (1) | 55 (E) | SFNN124S10 | Name Plate (1) | N41 | XWC3BFZ | Washer (1) |
| 12 | SFKT122-01 | Knob, Power Switch (1) | 55 | SFNN124Q10 | Name Plate (1) | N42 | XSN3+12BVS | Screw (2) |
| 13 | SFKK122-01E | Case, Strobe Illuminator (1) | 55 (EG,EH) | SFATM02N01A | Hinge (2) | N43 | XWG3FZ | Washer (2) |
| 14 | SFKT015-06 | Button, Start/Stop (1) | 58 | SFUP122-25 | Plate, Power transformer (1) | N44 | SFXW701-02 | Washer (1) |
| 15 | SFOA122-01 | Spring, Start/Stop Button (1) | 59 | | | N45 | SFPEW00705 | Washer (4) |
| 16 | SFUM122-01 | Base, Operation (1) | TONARM PARTS | | | N46 | XTW26+5E | Screw (1) |
| 17 | SFKT015-01E | Button, Speed (3) | 61 | SFPCS1001K | Headshell (1) | ACCESSORIES | | |
| 18 | SFDJ122-02E | Connector, 7pin (1) | 62 | SFPAM18201K | Tonearm Ass'y (Silver) (1) | A1 (M) | SFNU122M06 | Instruction Book (1) |
| 19 | SFGZ122-01 | Spacer, Rubber (1) | 62 | SEPAM18202K | Tonearm Ass'y (Black) (1) | A1 (MC) | SFNU122C06 | Instruction Book (1) |
| 20 | SFYB-5-32 | Ball, Switch Cam (1) | 63 | SFPWG17201K | Balance Weight (1) | A1 (E,EB,EC) | SFNU122S01 | Instruction Book (1) |
| 21 | SFOA520-01 | Spring, Switch Cam (1) | 64 | SFPRT18201K | Lift Ass'y (1) | A1 (EK) | SFNU122G01 | Instruction Book (1) |
| 22 | SFUM122-03 | Cam, Power Switch (1) | 65 | SFPZB17202 | Knob, Arm Base Lock (1) | A1 (PA, PE,PC) | SFNU122P01 | Instruction Book (1) |
| 23 | SFUM015-11 | Spacer, Speed Indicator (2) | 66 | SFOA829-03 | Spring, Lift Ass'y (1) | A1 (Other areas) | SFNU122X01 | Instruction Book (1) |
| 24 | SFKK172-01 | Cover, Stylus Illuminator (1) | 67 | SFPAB13202 | Knob, Arm Lift (1) | A2 | SFWE010 | 45 Adaptor (1) |
| 25 | SFXB122-06 | Boss, Drive (1) | 68 | SFPJL18202K | Oil Damper (1) | A3 | SFPEN3302 | Nut, Cartridge (2) |
| 26 | SFOA172-01 | Spring, Drive Boss (1) | 70 | SFPZB12203 | Plate, Arm Base Cover (1) | A4 | SFPEW9601 | Washer, Cartridge (2) |
| 27 | SFXJ172-01 | Pin, Lock Canceler (1) | 71 | SFUM170-06 | Spacer, Phono Cord (1) | A5 | SFCZV8801 | Screw, Cartridge (2) |
| 28 | SFUP122-02E | Bracket, Stylus Illuminator (1) | 72 | SEPZB12204 | Clamper, Phono Cord (1) | A6 | SFPEV9801 | Screw, Cartridge (2) |
| 29 | SFUP122-03 | Plate, Lock Operation (1) | 73 | SFPAB18201K | Tonearm Fixing Plate (1) | A7 | SFK0135-01 | Overhang Gauge (1) |
| 30 | SFDJ122-03E | Connector, 3pin (1) | 74 | SFPZB12201K | Plate (1) | A8 | SFPZB3501 | Shell Weight (1) |
| 31 | SFX0172-01 | Pin, Guide (1) | 75 | SFDH122-05 | Phono Cord (1) | A9 | SFDK119118 | 2pin Plug (1) |
| 32 | SFOA520-01 | Spring, Lock Canceler (1) | 76 | SFEL028-01E | Ground Wire (1) | [XA] Only | SFPWG17202 | Sub-weight (1) |
| 33 | SFOA122-02 | Spring, Lock Operation Plate (1) | 77 | SFPRT17201K | Arm Rest (1) | A10 | QJP0603S | Adaptor, Gimens (1) |
| 34 | SFXJ172-05 | Pin, Lock Operation Plate (1) | 78 | SFPKD17203 | Arm Base (Silver) (1) | A11 | | |
| 35 (M,MC,PA PE,PC) | SFHK040L | Clamper, AC Cord (1) | 78 | SFPKD17205 | Arm Base (Black) (1) | [PA,PE, PC] Only | | |
| 35 (EK) | SFSR-5N-4 | Clamper, AC Cord (1) | 79 | SFPKB17204E | Ring, Arm Base Operation (1) | PACKING PARTS | | |
| 35 (Other areas) | SFSR-4N-4 | Clamper, AC Cord (1) | 80 | SFPKD12201 | Bracket, Arm Base (1) | P1 (MC, EF) | SFHP122C02 | Carton Box (Silver) (1) |
| 36 (M,MC,PA PE,PC) | SFUP122-16 | Bracket, AC Cord (1) | 81 | SFPAB17206 | Knob, Anti-Skating (1) | P1 (Other areas) | SFHP122M02 | Carton Box (Silver) (1) |
| 36 (Other areas) | SFUP122X01 | Bracket, AC Cord (1) | 82 | SFGK132-01 | Cap (Silver) (1) | P1 | SFHP124S02 | Carton Box (Black) (1) |
| 37 | RJA8Y | AC Cord (1) | 82 | SFGK133S01 | Cap (Black) (1) | P2 | SFHH122-01 | Pad, Front (1) |
| 37 (M,MC) | QFC1205M | AC Cord (1) | SCREW, NUT AND WASHERS | | | P3 | SFHH122-02 | Pad, Rear (1) |
| 37 (EK) | SJAG23 | AC Cord (1) | N1 | XTN3+8BFZ | Screw (5) | P4 | SFHD122N05 | Pad, Top (1) |
| 37 (XL) | SJA83 | AC Cord (1) | N2 | SFXGQ20-02 | Screw (3) | P5 | SFHD122-02 | Pad (A), Turntable (1) |
| 37 | SJA83 | AC Cord (1) | N3 | XTN3+8B | Screw (8) | P6 | SFHD122N06 | Pad (B), Turntable (1) |
| 37 (PA,PE,PC) | SJA88 | AC Cord (1) | N4 | XWG3 | Washer (12) | P7 | SFYH60X60 | Polyethylene Bag, Unit & Dust Cover (2) |
| 37 (Other areas) | | | N5 | XTN26+6B | Screw (3) | P8 | SFYH40X45 | Polyethylene Bag, Turntable (1) |
| 38 | SFGC122-03 | Rubber, Power Transformer (2) | N6 | XTV3+8BFN | Screw (8) | P9 | SPB1083 | Polyethylene Bag, Accessories (3) |
| 39 | SFGC122-01 | Cushion, Power Transformer (3) | N7 | SFXG172-01 | Screw (2) | P10 | SPJ15 | Polyethylene Bag, Shell Weight (1) |
| 41 | SFKT122-02 | Knob, Pitch Control (1) | N8 | XTN3+5J | Screw (3) | P11 | SFHZD03M01 | Cover Sheet, Dust Cover (1) |
| 42 | SFKK122-03 | Ornament (Silver), Pitch Control (1) | N9 | SFXW172-03 | Washer (1) | P12 | SFHZ122-01 | Cover Sheet, 45Adaptor (1) |
| 42 | SFKK124S01 | Ornament (Black), Pitch Control (1) | N10 | SFPEW11003 | Washer (6) | P13 | SPP189 | Cover Sheet, Cords (2) |
| 43 | SFUZ122-01 | Felt (1) | N11 | XWE3E10 | Washer (3) | | | |
| 44 | SFUP122-09 | Holder, LED (1) | N12 | XWA3B | Washer (8) | | | |
| 45 | SFUP122-01 | Bracket, Pitch Control (1) | N13 | XSN3+10S | Screw (3) | | | |
| 46 | SFDJ122-01E | Connector, 4pin (1) | N14 | SFXW910J02 | Washer (1) | | | |
| 48 | SFAU122-02 | Bottom Base (1) | N15 | XTN3+10B | Screw (5) | | | |
| 48-1 | SFAU122-03 | Bottom Cover (1) | N16 | XTN2+10B | Screw (1) | | | |
| 49 | SFUP122-23 | Supporter (A), Hinge (2) | N17 | XUC3FT | Circlip (2) | | | |
| 50 | SFUP122-24 | Supporter (B), Hinge (2) | N18 | XSN17+3FY | Screw (1) | | | |
| 51 | SFUMM02N04 | Case, Hinge (2) | N19 | XUC2FT | Circlip (1) | | | |
| | | | N20 | XUC25FT | Circlip (1) | | | |
| | | | N21 | XSN3+14S | Screw (1) | | | |
| | | | N22 | RTW-12 | Circlip (1) | | | |
| | | | N23 | XSN2+10 | Screw (2) | | | |
| | | | N24 | XSN3+6S | Screw (2) | | | |
| | | | N25 | XTN3+6B | Screw (5) | | | |
| | | | N26 | XTWS3+14TFZ | Screw (6) | | | |
| | | | N27 | SFXG122-02 | Screw (1) | | | |
| | | | N29 | SFXG122-01 | Screw (4) | | | |
| | | | N30 | XTN3+14QFZ | Screw (6) | | | |

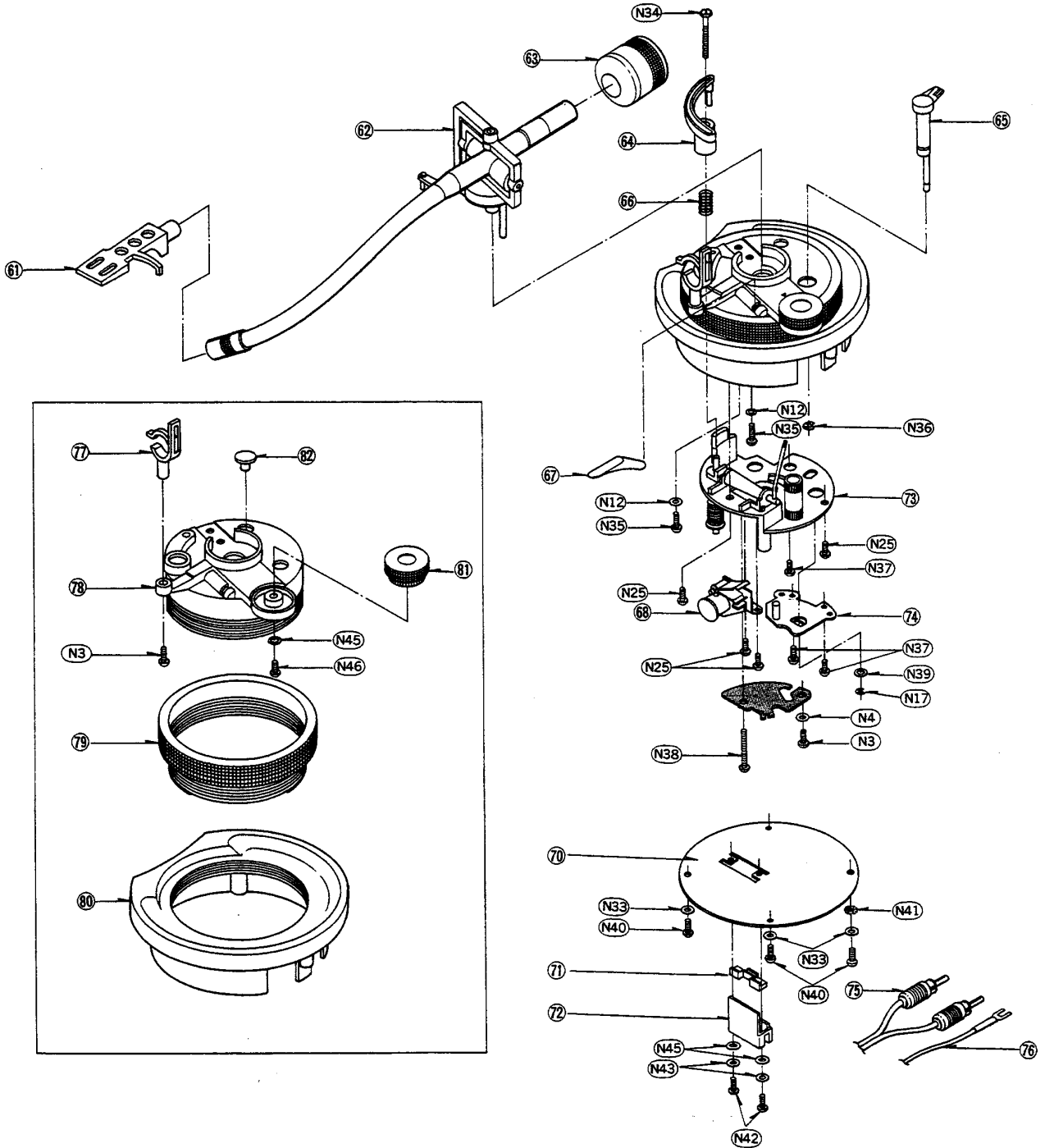
EXPLODED VIEWS
 • Cabinet and Chassis Parts



Note: For the set with serial number sheet change mark **E**, the power transformer is fitted as shown below.

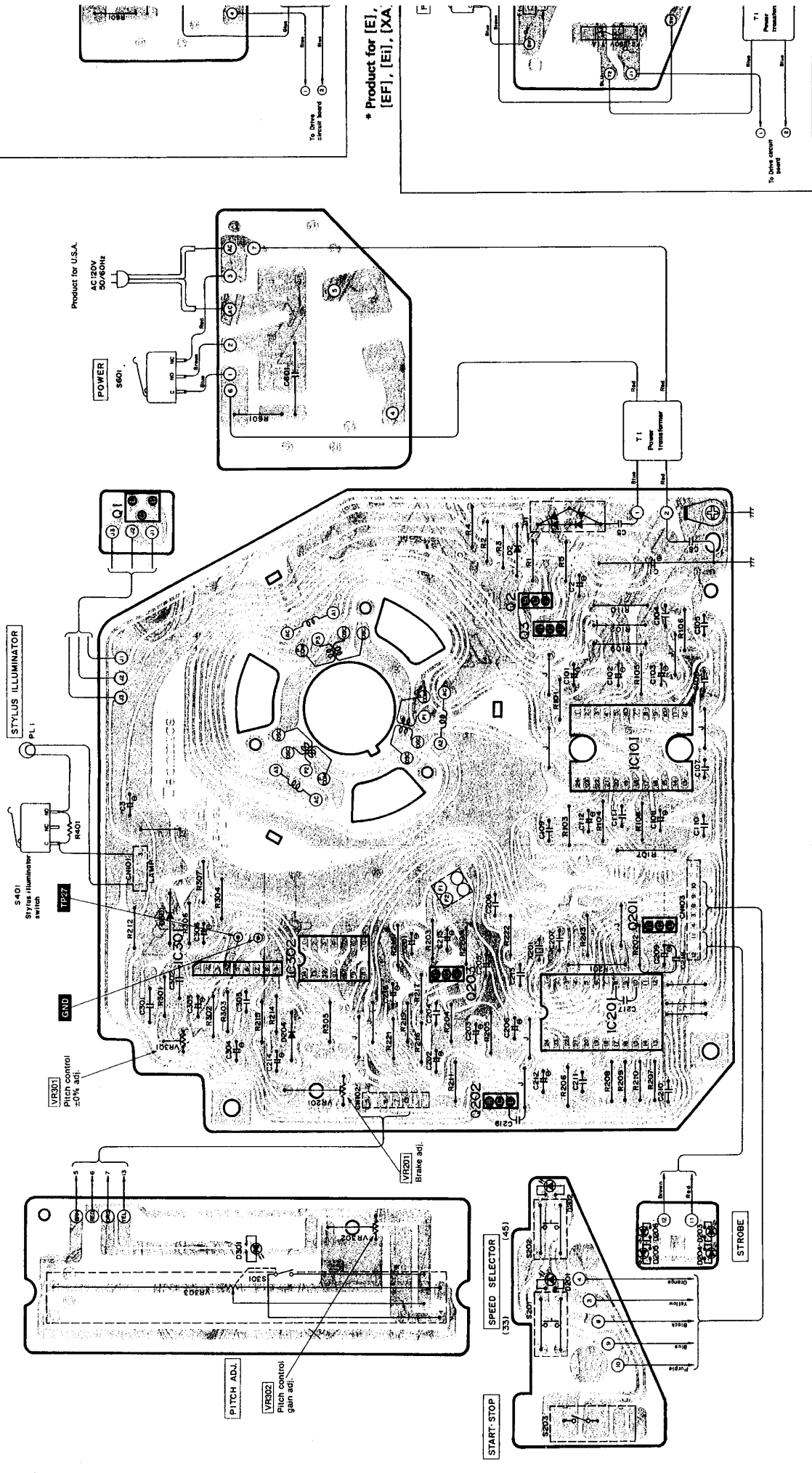
SL-1200MK2/1210MK2

• Tonearm Parts



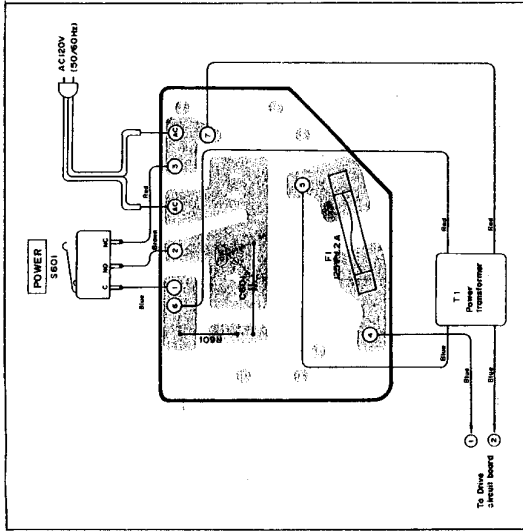
- Power source circ
- * Product for Car

CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM

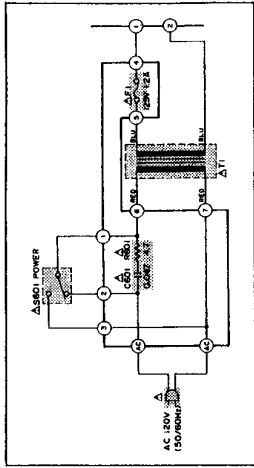
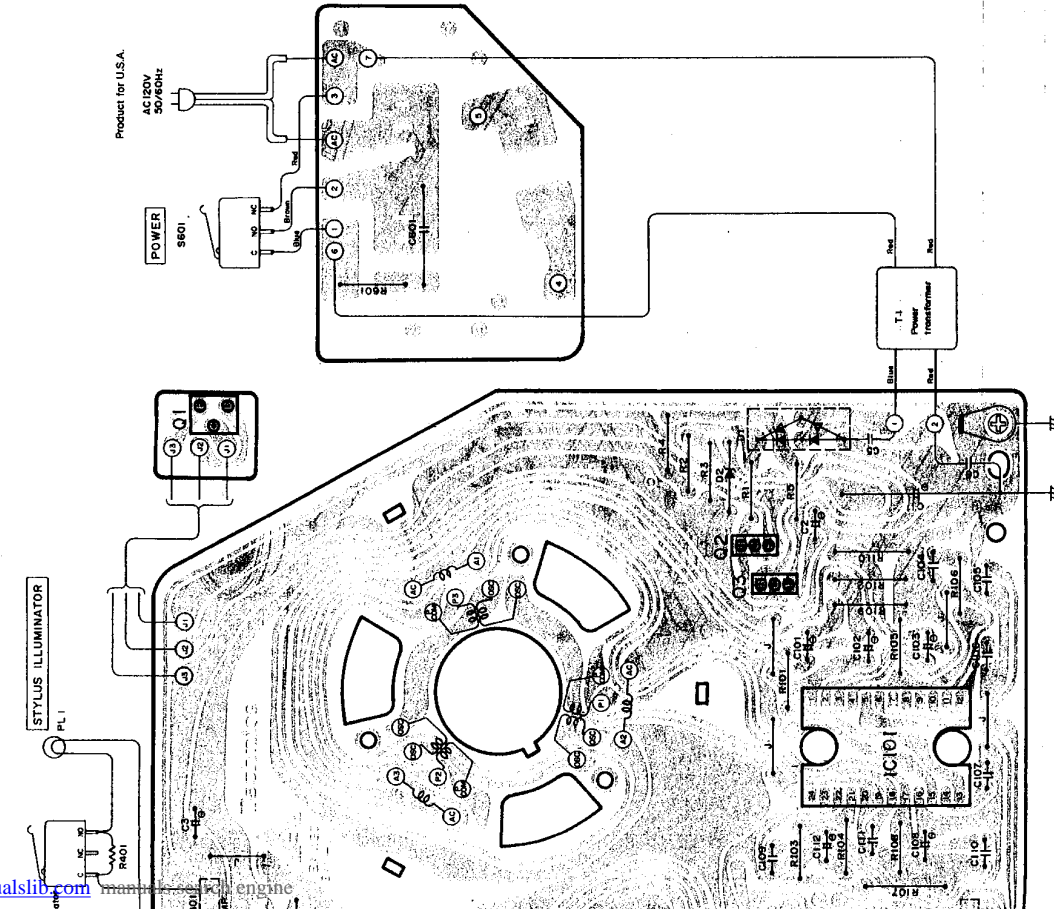
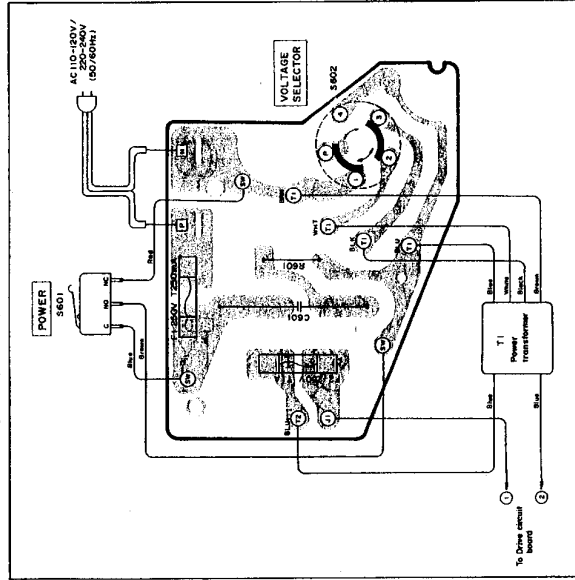


SL-1200MK2/1210MK2 SL-1200MK2/1210MK2

- Power source circuit
- * Product for Canada



- * Product for [E], [EK], [XL], [EG], [EB], [EH], [EF], [E1], [XA], [PA], [PE] and [PC] areas



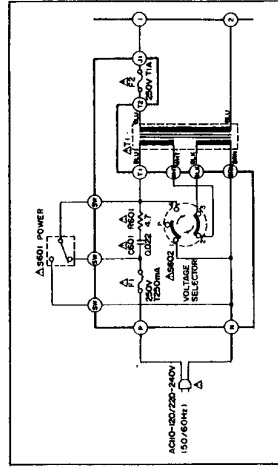
Product for MC only

FUSE REPLACEMENT

Symbol located near the fuse indicates fast operating type. For continued protection against fire hazard, replace with same type fuse. Refer to the symbol for fuse rating.

FUSIBLE REMPLACEMENT

Le symbole qui se trouve près du fusible signifie un fusible à action rapide. Pour une protection continue contre les risques d'incendie, remplacer que des fusibles du même type. Se reporter au symbole pour la valeur des fusibles.



■ SCHEMATIC DIAGRAM

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

Notes:

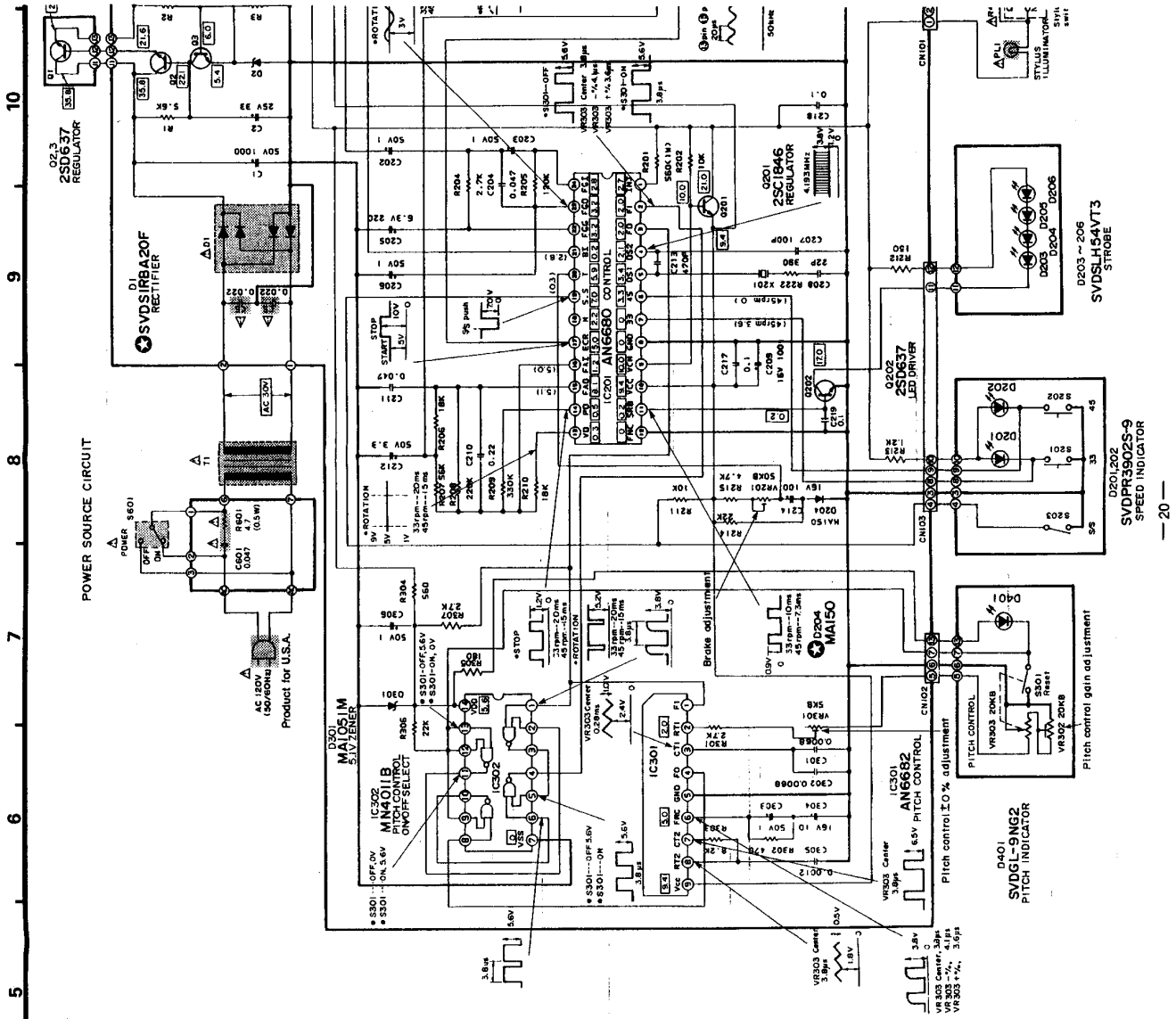
1. S201, 202 : Speed selector switch.
2. S203 : Start/stop reset switch.
3. S301 : Pitch control reset switch in "off" position.
4. S401 : Stylus illuminator switch in "off" position.
5. S601 : Power switch in "on" position.
6. S802 : Voltage selector in "220 - 240" position.
7. The voltage value, and waveforms are the reference voltage values of this unit measured by DC electronic voltmeter (high-impedance) and oscilloscope on the basis of chassis. Therefore, the voltage value and waveform may include some error due to the internal impedance of the tester or the measuring set.
8. Δ is the voltage when turntable is in rotation. (at 33 rpm)
9. Δ is the voltage lines.
10. 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.
The part No. of diodes mentioned in the schematic diagram stand for production part No. Regarding the part No. with Δ mark the production part No. are different from the replacement part No. Therefore, when placing an order for replacement part, please use the part No. in the replacement parts list.

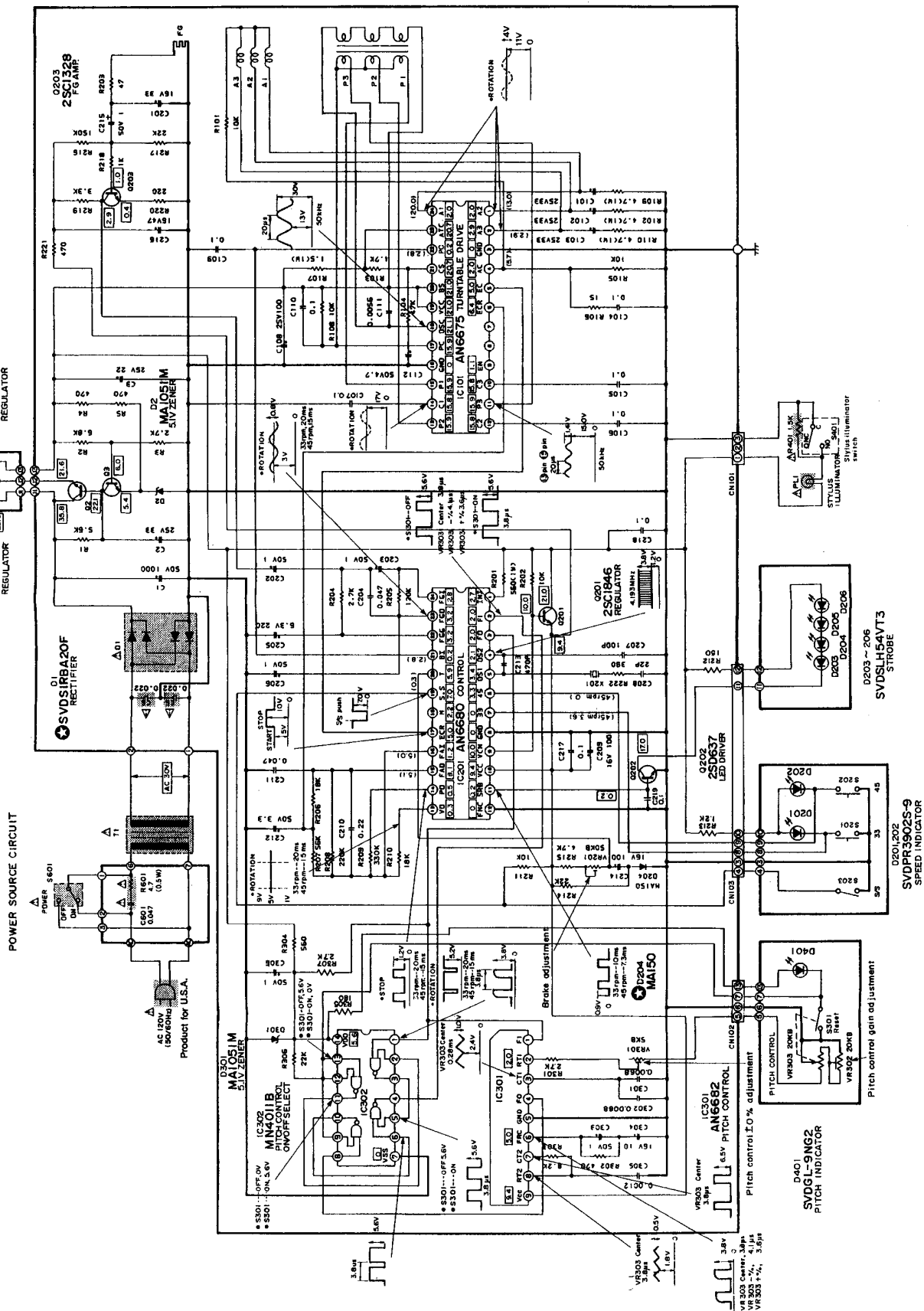
IMPORTANT SAFETY NOTICE

The shaded area on this schematic diagram indicates special safety notice. This notice is important for protection from fire and electrical shock hazards. When servicing this equipment, only manufacturer's specified parts be used for the critical components in the shaded areas of the schematic.

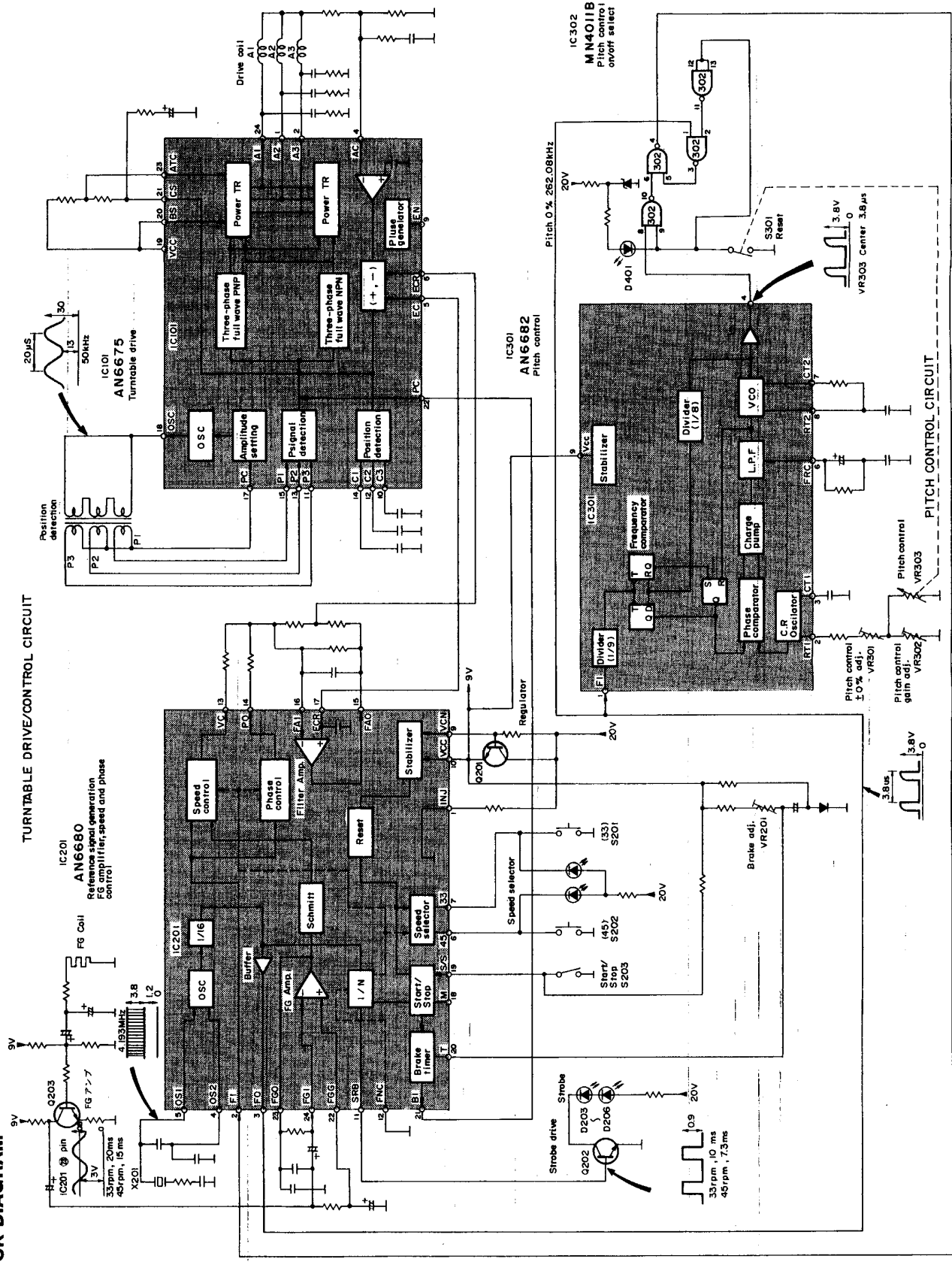
● Terminal guide of transistors, diodes and IC's

| | | | | |
|-------------------------|-----------|-----------------------------|--------|-------------|
| AN6875 | AN6880 | AN6882 | AN6875 | SVDS1RBA20F |
| | | | | |
| MA1011B 14 Pin | 2SD1265 | 2SD1265 | MA150 | MA150 |
| | | | | |
| 2SC1846 | 2SC1846 | 2SD637 2SB641 2SD636 2SB643 | MA1051 | MA1051 |
| | | | | |
| SVDR3902S-9 SVDSLH54V13 | SVDGL-9G2 | SVDGL-9G2 | | |
| | | | | |





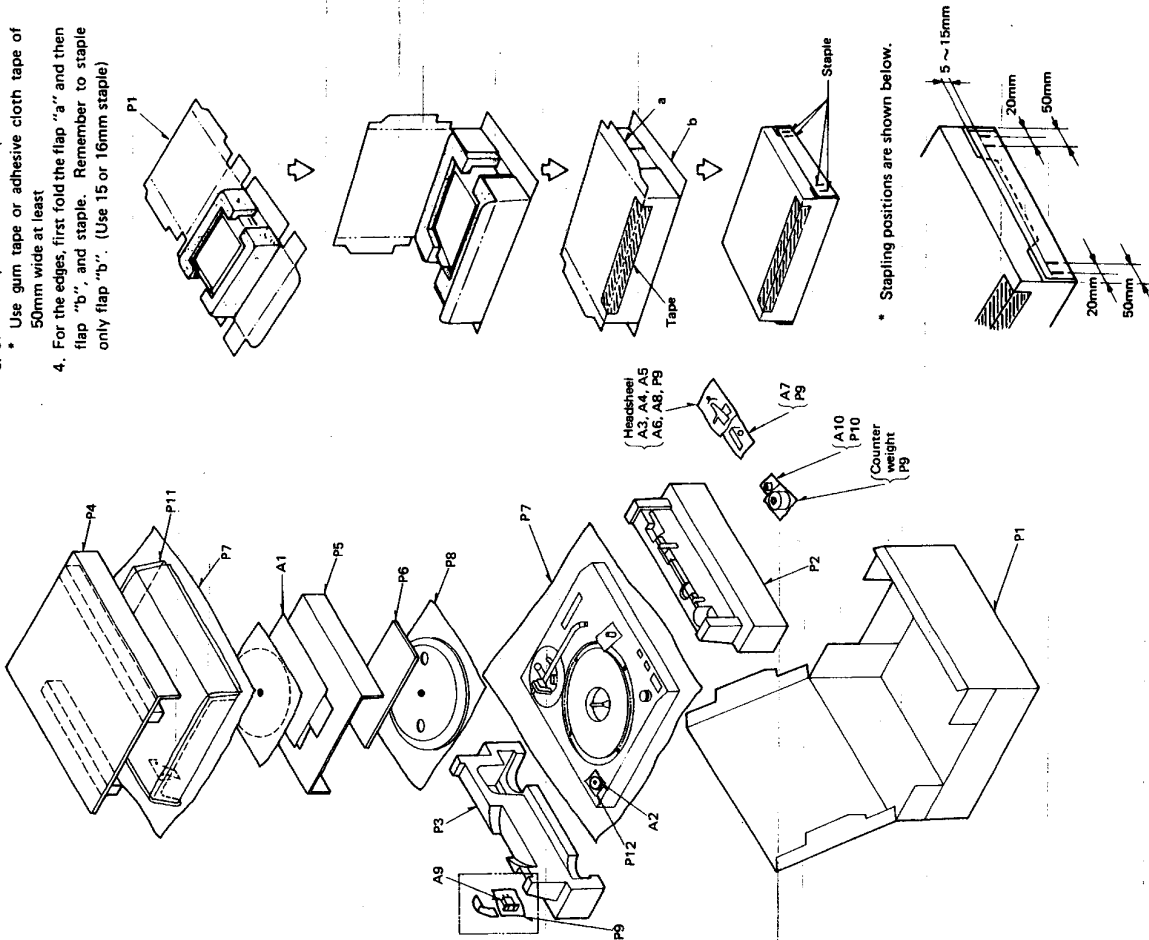
BLOCK DIAGRAM



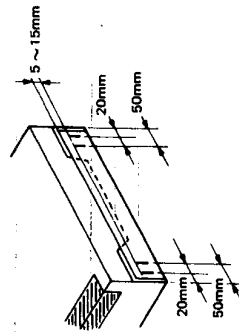
SL-1200MK2/1210MK2

PACKING

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.



Service Manual

Turntable System SL-1210MK2 [XG], [E]

Areas

- * [XG] is available in European.
- * [E] is available in Scandinavia.

For additional information, Please refer to the service manual for Model No. SL-1200MK2 [XG, XA, XGB, XAL, E]

- Notes:**
- * This service manual included only the change of the SL-1200MK2 [XG, XA, XGB, XAL, E] service manual (ORDER NO. SD7909-1622)
 - * When servicing model SL-1210MK2 [XG, E], this service manual and SL-1200MK2 (ORDER NO. 7909-1622) service manual should be used together.

CHANGES

■ REPLACEMENT PARTS LIST

| Ref. No. | Change of Part No. | | Part Name & Description | Per Set (Pcs.) | Remarks |
|--------------------------------------|-------------------------------------|-------------------------|--------------------------------|----------------|---------|
| | SL-1200MK2 [XG, XA, XGB, XAL, E] | → SL-1210MK2 [XG, E] | | | |
| CABINET and CHASSIS PARTS | | | | | |
| 10 | SFAC122-01 | SFAC124S01 | Cabinet (Black) | 1 | ○ |
| 35 | SFSR4N4 | SFSR4N4 | Clamper, AC Cord | 1 | |
| | SFHK040L [XAL] only | | | | |
| 36 | SFUP025X01 | SFUP025X01 | Bracket, AC Cord | 1 | |
| | SFUP025-01 [XAL] only | | | | |
| 37 | RJA23ZC | SJA88 | AC Cord | 1 | |
| | QFC1208M [XAL] only | | | | |
| 42 | SFKK122-03 | SFKK124S01 | Ornament, Pitch Control Volume | 1 | |
| 55 | SFNN122N01 | SFNN124Q01 [XG] | Name Plate | 1 | ○ |
| | SFNN122L01 [XAL] only | | | | |
| | SFNN122S01 [E] only | SFNN124S01 [E] | Name Plate | 1 | ○ |
| — TONE ARM and ARM BASE PARTS | | | | | |
| 62 | SFPAM18201K | SFPAM18202K | Tone Arm Ass'y | 1 | ○ |
| 82 | SFGK132-01 | SFGK133S01 | Cap, Rubber | 1 | |
| PACKING PARTS | | | | | |
| P1 | SFHP122M01 | SFHP124S01 | Carton Box | 1 | ○ |

REPLACEMENT PARTS LIST (Mechanical)

- Notes: 1. Part numbers are indicated on most mechanical parts.
Please use this number for parts orders.
2. Δ indicates that only parts specified by manufacturer be used for safety.

| Ref. No. | Part No. | Part Name & Description |
|----------------------------------|----------------|--------------------------------------|
| CABINET and CHASSIS PARTS | | |
| 1 | SFAD122-01A | Dust Cover |
| 2 | SFTG172-01 | Turntable Mat |
| 3 | SFTE172-01Z | Turntable |
| 4 | SFUM172-05 | Cover, Turntable |
| 5 | SFMGQ20-01 | Cover, Stater Frame Ass'y |
| 6 | SFMG520-31A | Stater Frame |
| 7 | SFMZ172-01E | FG Detector Coil Ass'y |
| 8 | SFMZQ20-01A | Shaft, Stater Frame Ass'y |
| 9 | SFUP122-12 | Plate, Shield |
| 10 | SFAC124S01 | Cabinet |
| 11 | SFUM172-04 | Ornament, Stylus-illuminator |
| 12 | SFKT122-01 | Knob, Power Switch |
| 13 | SFKK122-01E | Case, Strobe-illuminator |
| 14 | SFKT015-06 | Knob, Start/Stop Switch |
| 15 | SFQA122-01 | Spring, Start/Stop Knob |
| 16 | SFUM122-01 | Base, Operation |
| 17 | SFKT015-01E | Knob, Speed Selector (33-1/3 r.p.m.) |
| 18 | SFDJ122-02E | Connector, 7-PIN |
| 19 | SFGZ122-01 | Spacer, Rubber (Speed Selector) |
| 20 | SFYB5-32 | Ball, Switch Cam |
| 21 | SFQA520-01 | Spring, Switch Cam |
| 22 | SFUM122-03 | Cam, Switch |
| 23 | SFUM015-11 | Spacer, LED |
| 24 | SFKK172-01 | Cover, Lamp |
| 25 | SFXB122-02 | Boss, Drive |
| 26 | SFQA172-01 | Spring, Drive Boss |
| 27 | SFXJ172-01 | Pin, Lock Canceler |
| 28 | SFUP122-02E | Bracket, Stylus-illuminator |
| 29 | SFUP122-03 | Plate, Lock Operation |
| 30 | SFDJ122-03E | Connector, 3-PIN |
| 31 | SFXO172-01 | Pin, Guide |
| 32 | SFQA520-01 | Spring, Lock Canceler Pin |
| 33 | SFQA001-02 | Spring, Lock Operating Plate M'tg |
| 34 | SFXJ172-05 | Pin, Lock Operating Plate M'tg |
| 35 | SFSR4N4 | Clamper, AC Cord |
| 36 | SFUP025X01 | Bracket, AC Cord |
| 37 | Δ SJA88 | AC Cord |
| 38 | SFUP132-03 | Bracket, Power Transformer |
| 39 | SFGC122-01 | Cushion, Power Transformer |
| 40 | SFUP122-10 | Spacer, Power Transformer |
| 41 | SFKT122-02 | Knob, Pitch Control Volume |
| 42 | SFKK124S01 | Ornament, Pitch Control Volume |
| 43 | SFUZ122-01 | Shading Cloth, Pitch Control Volume |
| 44 | SFUP122-09 | Holder, LED |
| 45 | SFUP122-01 | Bracket, Pitch Control Volume |
| 46 | SFDJ122-01E | Connector, 4-PIN |
| 47 | SFUP122-13 | Supporter, Bottom Base |
| 48 | SFAU122-01 | Base, Bottom |
| 49 | SFUP122-05 | Supporter (A), Hinge |
| 50 | SFUP122-04 | Supporter (B), Hinge |
| 51 | SFUM170-07 | Case, Hinge |
| 52 | SFGC122-02E | Audio Insulator |
| 53 | SFUP122-06 | Supporter (C), Hinge |
| 54 | SFKT015-02E | Knob, Speed Selector (45 r.p.m.) |
| 55 [XG] | SFNN124Q01 | Name Plate |
| 55 [E] | SFNN124S01 | Name Plate |
| 56 | SFXO122-01 | Pipe (A) |
| 57 | SFXO122-02 | Pipe (B) |
| 58 | SFAT122-01A | Hinge Ass'y |
| STONE ARM and ARM BASE | | |
| 61 | SFPCC31001K | Head Shell |
| 62 | SFPAM18202K | Tone Arm Ass'y |
| 63 | SFPWG17201K | Balance Weight Ass'y |
| 64 | SFPRT18201K | Lift Ass'y |
| 65 | SFPZB17202 | Knob, Arm Base Lock |
| 66 | SFQA829-03 | Spring, Lift Ass'y |
| 67 | SFPAB13202 | Knob, Arm Lift |
| 68 | SFPJL18202K | Oil Damper |
| 70 | SFPZB12203 | Plate, Arm Base Cover |
| 71 | SFUM170-06 | Spacer, Phono Cord |
| 72 | SFPZB12204 | Clamper, Phono Cord |
| 73 | SFPAB18201K | Tone Arm Fixing Plate Ass'y |

| Ref. No. | Part No. | Part Name & Description |
|-------------------------------------|-------------|---|
| 74 | SFPZB12201K | Plate, Position Fix |
| 75 | SFDH028-01 | Phono Cord |
| 76 | SFEL028-01E | Ground Wire |
| 77 | SFPRT17201K | Arm Rest |
| 78 | SFPKD17203 | Arm Base |
| 79 | SFPKB17201S | Ring, Arm Base Operation |
| 80 | SFPKD12201 | Bracket, Arm Base |
| 81 | SFPAB17206 | Knob, Anti-skate Force Control |
| 82 | SFGK133S01 | Cap, Rubber |
| SCREWS, WASHERS and CIRCLIPS | | |
| ● | XTN3+8BFZ | Screw |
| ● | SFXGQ20-02 | Screw |
| ● | XTN3+8B | Screw |
| ● | XTN26+6B | Screw |
| ● | XTN4+10B | Screw |
| ● | XWA4B | Washer |
| ● | XUC3FT | Circlip |
| ● | XUC2FT | Circlip |
| ● | XUC25FT | Circlip |
| ● | SFXW910J02 | Washer |
| ● | XTN3+40BFZ | Screw |
| ● | XSN3+10BVS | Screw |
| ● | XWE3F12FZ | Washer |
| ● | XTN3+25BFZ | Screw |
| ● | SFXW122-01 | Washer |
| ● | XWE3E10 | Washer |
| ● | SFPEW1100 | Washer |
| ● | SFPEW11003 | Washer |
| ● | XSN3+8S | Screw |
| ● | SFXG172-01 | Screw |
| ● | XTV3+8BFN | Screw |
| ● | XTN3+10B | Screw |
| ● | XTN2+10B | Screw |
| ● | XSN17+3FY | Screw |
| ● | XSN3+14S | Screw |
| ● | SFXW172-04 | Washer |
| ● | XUB14FT | Circlip |
| ● | SFUZ172-05 | O Ring |
| ● | XTN3+6B | Screw |
| ● | XSN3+6S | Screw |
| ● | XWA3BFZ | Washer |
| ● | XWA3B | Washer |
| ● | XWG3 | Washer |
| ● | SFXG829-1 | Screw |
| ● | XUC5FT | Circlip |
| ● | XTV3+6B | Screw |
| ● | XTV3+6BFN | Screw |
| ● | XWE4A10EW | Washer |
| ● | XTN3+25B | Screw |
| ● | XYN3+C6FZS | Screw |
| ● | XSN3+12BVS | Screw |
| ● | SFPEW17201 | Washer |
| ● | XWG26 | Washer |
| ACCESSORIES | | |
| A1 [XG] | SFNU122X01 | Instruction Book |
| A1 [E] | SFNU122S01 | Instruction Book |
| A2 | SFWE010 | Adaptor, 45 r.p.m. |
| A3 | SFPEN3302 | Nut, Cartridge |
| A4 | SFPEW9601 | Washer, Cartridge |
| A5 | SFCZV8801 | Screw, Cartridge |
| A6 | SFPEV9801 | Screw, Cartridge |
| A7 | SFKO135-01 | Overhang Gauge |
| A8 | SFPZB3501 | Shell Weight |
| PACKINGS | | |
| P1 | SFHP124S01 | Carton |
| P2 | SFHH122-01 | Pad, Front |
| P3 | SFHH122-02 | Pad, Rear |
| P4 | SFHD122-01 | Pad, Top |
| P5 | SFHD122-02 | Pad, (A), Turntable |
| P6 | SFHD122-03 | Pad, (B), Turntable |
| P7 | SFYH60X60 | Polyethylene Cover, Turntable Unit and Dust Cover |
| P8 | SFYH40X45 | Polyethylene Cover, Turntable |

Service Manual

SL-1200MK2



Turntable System SL-1200MK2 (XG), (XA), (XGB) (XAL), (E)

- The model SL-1200MK2 (XG) is available in European only.
- The model SL-1200MK2 (XA) is available in Asia, Latin America, Middle East and Africa only.
- The model SL-1200MK2 (XGB) is available in Belgium only.
- The model SL-1200MK2 (XAL) is available in Australia only.
- The model SL-1200MK2 (E) is available in Scandinavia only.

SPECIFICATIONS (Specifications subject to change without notice. Weight and dimensions shown are approximate.)

General

Power supply: ~110-120/220-240, 50 or 60 Hz
Power consumption: 13.5 W
Dimensions: 45.3 x 16.2 x 36 cm
 (W x H x D) (17-27/32" x 6-19/64" x 14-11/64")
Weight: 12.5 kg (27.6 lb)

Turntable section

Type: Quartz direct drive
Manual turntable
Drive method: Direct drive
Motor: Brushless DC motor
Turntable platter: Aluminum diecast
Diameter 33.2 cm (13-5/64")
Weight 2 kg (4.4 lb)
Turntable speeds: 33-1/3 rpm and 45 rpm
Starting torque: 1.5 kg.cm (1.3 lb.in)
Build-up characteristics: 0.7 s. from standstill to 33-1/3 rpm
Braking system: Electronic brake
Wow and flutter: 0.01% WRMS*
0.025% WRMS (JIS C5521)
±0.035% peak (IEC 98A Weighted)

* This rating refers to turntable assembly alone, excluding effects of record, cartridge or tonearm, but including platter. Measured by obtaining signal from built-in frequency generator of motor assembly.

Rumble: -56 dB (IEC 98A Unweighted)
-78 dB (IEC 98A Weighted)

Tonearm section

Type: Universal
Effective length: 230 mm (9-1/16")
Arm height adjustment range: 0-6 mm
Overhang: 15 mm (19/32")

Effective mass: 12-g (without cartridge)
Offset angle: 22°
Friction: Less than 7 mg (lateral, vertical)
Tracking error angle: Within 2°32' (at the outer groove of 30 cm (12") record)
Stylus pressure: Within 0°32' (at the inner groove of 30 cm (12") record)
adjustment range: 0-2.5 g
Applicable cartridge weight range: 6-10 g
13.5-17.5 g (including headshell)
(with auxiliary weight): 9.5-13 g
17-20.5 g (including headshell)
(with shell weight) 3.5-6.5 g
11-14 g (including headshell)
Headshell weight: 7.5 g

Cartridge section

Model No. EPC-207C
Type: Moving magnet
Frequency response: 20 Hz to 25 kHz
20 Hz to 15 kHz ±2 dB
Output voltage: 3 mV at 1 kHz
5 cm/s. zero to peak lateral velocity
[8.5 mV at 1 kHz 10 cm/s. zero to peak 45° velocity (DIN 45500)]
Channel separation: 25 dB at 1 kHz
Channel balance: Within 2 dB at 1 kHz
Compliance (dynamic): 10 x 10⁶ cm/dyne at 100Hz
Stylus pressure: 1.75 ±0.25 g (17.5 ±2.5 mN)
Load impedance: 47 kΩ to 100 kΩ
Weight: 5.6 g (cartridge only)
Replacement stylus: EPS-207ED
(Elliptical stylus)

TECHNISCHE DATEN

Allgemeine Daten

| | |
|---------------------------------|---|
| Stromversorgung : | ~110-120/220-240 V, 50/60 Hz Wechselstrom |
| Leistungsaufnahme: | 13,5 W |
| Abmessungen (B x H x T): | 45,3 x 16,2 x 36 cm |
| Gewicht: | 12,5 kg |

Plattenspieler

| | |
|----------------------------------|--|
| Typ: | Manueller Quarz-Direktantrieb Plattenspieler |
| Antrieb: | Direktantrieb |
| Motor: | Kollektorloser Gleichstrommotor |
| Plattenteller: | Aluminium-Spritzguß Durchmesser 33,2 cm Gewicht 2 kg |
| Plattenteller-Drehzahlen: | 33-1/3 und 45 U/min |
| Anlaufdrehmoment: | 0,7 sec vom Stillstand auf 33-1/3 U/min |
| Bremssystem: | Elektronische Bremse |
| Gleichlaufschwankungen: | 0,01% WRMS* 0,25% WRMS (JIS C5521) ±0,035% Spitze (IEC 98A bewertet) |

Diese Nennleistung bezieht sich auf das Laufwerk-Bauteil allein, ausschließlich Einflüsse von Schallplatte, Tonabnehmer oder Tonarm, aber einschließlich Plattenteller. Gemessen anhand von Signalen vom eingebauten Frequenzgenerator des Motorbauteils.

Rumpel-Geräusch

| | |
|--------------------------|--|
| spannungsabstand: | -56 dB (IEC 98A unbewertet) -78 dB (IEC 98A bewertet) |
|--------------------------|--|

Tonarm

| | |
|------------------------------------|------------------|
| Typ: | Universal-Tonarm |
| Effektive Länge: | 230 mm |
| Tonarmhöhe-Einstellbereich: | 0-6 mm |
| Überhang: | 15 mm |

| | |
|---|--|
| Effektive Masse: | 12 g (ohne Tonabnehmer) |
| Kröpfungswinkel: | 22° |
| Lagerreibung: | Weniger als 7 mg (horizontal, vertikal) |
| Auflagekraft-Einstellbereich: | 0-2,5 g |
| Zulässiger Ton-abnehmer-Gewichtsbereich: | 6-10 g 13,5-17 g (einschließlich Tonarmkopf) 9,5-13 g 17-20,5 g (einschließlich Tonarmkopf) 3,5-6,5 g 11-14 g (einschließlich Tonarmkopf) |
| (mit Zusatz-Gegengewicht): | |
| Gewichtsbereich: | |
| (mit Zusatzgewicht) | |
| Tonarmkopf-Gewicht: | 7,5 g |

Tonabnehmer

| | |
|------------------------------------|---|
| Modell-Nummer: | EPC-207C |
| Typ: | Magnetischer Tonabnehmer |
| Frequenzgang: | 20 Hz bis 25 kHz 20 Hz bis 15 kHz ±2 dB 3 mV bei 1 kHz |
| Ausgangsspannung: | 5 cm/s. Null-zu-Spitze, lateral [8,5 mV bei 1 kHz 10 cm/s. Null-zu-Spitze, 45° (DIN 45500)] 25 dB bei 1 kHz Innerhalb 2 dB bei 1 kHz |
| Kanaltrennung: | |
| Kanalabweichung: | |
| Nachgiebigkeit (dynamisch): | 10 x 10 ⁶ cm/dyn bei 100 Hz |
| Auflagekraft: | 1,75 ±0,25 g (1,75 ±2,5 mN) |
| Impedanz: | 47 kΩ bis 100 kΩ |
| Gewicht: | 5,6 g (ohne Tonarmkopf) |
| Ersatznadel: | EPS-207ED (Elliptische Nadel) |

Änderungen der technischen Daten vorbehalten.
Die angegebenen Gewichts- und Abmessungsdaten sind ungefähre Werte.

SPECIFICATIONS

Généralités

| | |
|----------------------|--|
| Alimentation: | Alternatif 110-120/220-240V, 50 ou 60 Hz |
| Consommation: | 13,5W |
| (L x H x P) | |
| Poids: | 12,5 kg |

Platine de lecture

| | |
|-------------|---|
| Typ: | Entainement direct à quartz Platine manuelle |
|-------------|---|

Système d'entraînement:

| | |
|----------------------------|---|
| Moteur: | Entraînement direct |
| Plateau de lecture: | Moteur C.C. sans balai Aluminium moulé sous pression Diamètre 33,2 cm Poids 2 kg |

Vitesses de rotation:

| | |
|---|--|
| Couple de démarrage: | 33-1/3 et 45 t/p.m |
| Caractéristiques d'augmentation: | 0,7 s (rotation de 90°) à 33-1/3 t/p.m. |
| Système de freinage: | Frein électronique |
| Pleurage et scintillement: | 0,01% de valeur efficace* 0,025% de valeur efficace (JIS C5521) ±0,035% de crête (IEC 98A Pondéré) |

* Ce régime nominal se rapporte à l'ensemble du tournedisqueseul, excluant les effets du disque, de la cellule pick-up ou de bras de lecture, mais comprenant le plateau. Mesuré par l'obtention d'un signal provenant du générateur de fréquences incorporé de l'ensemble du moteur.

| | |
|--------------------|---|
| Ronflement: | -56 dB (IEC 98A Non pondéré) -78dB (IEC 98A Pondéré) |
|--------------------|---|

Bras de lecture

| | |
|-------------|---------------------------|
| Typ: | Bras de lecture universel |
|-------------|---------------------------|

Longueur effective:

| | |
|---|--|
| Portée du réglage de la hauteur du bras: | 230 mm |
| Porte-à-faux: | 0-6 mm |
| Masse réelle: | 15 mm |
| Angle d'erreur de piste: | 12 g (sans la cellule pick-up) 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 |

| | |
|---|---|
| Angle de décalage: | 22° |
| Frottement: | Moins de 7 mg (latéral et vertical) |
| Plage de réglage de la pression d'appui: | 0-2,5 g |
| Gamme du poids de la cellule pick-up utilisable: | 6-10 g 13,5-17,5 g (y compris la coque porte-cellule) 9,5-13 g 17-20,5 g (y compris la coque porte-cellule) 3,5-6,5 g 11-14 g (y compris la coque porte-cellule) |
| (avec contrepoids auxiliaire) | |
| (avec contrepoids de la cellule) | |
| Poids de la cellule: | 7,5 g |

Cellule pick-up

| | |
|---|---|
| No. du modèle: | EPC-207C |
| Type: | Aimant mobile |
| Réponse en fréquence: | 20 Hz à 25 kHz 20 Hz à 15 kHz ±2dB 3 mV à 1 kHz; 5 cm/s. zéro à vitesse latérale de crête [8,5 mV à 1 kHz 10 cm/s., zéro à vitesse 45° de crête (DIN 45500)] |
| Tension de sortie: | 25 dB à 1 kHz |
| Séparation de canal: | |
| Equilibrage des canaux: | En deçà de 2 dB à 1 kHz |
| Elasticité (dynamique): | 10 x 10 ⁶ cm/dyne à 100 Hz |
| Pression de la pointe de lecture: | 1,75 ±0,25 g (1,75 ±2,5 mN) |
| Impédance de charge: | 47 kΩ to 100 kΩ |
| Poids: | 5,6 grammes (cellule seule) |
| Pointe de lecture de remplacement: | EPS-207ED (Forme elliptique) |

Les spécifications sont susceptibles d'être modifiées sans préavis.
Les poids et les dimensions donnés sont approximatifs.

CONTENTS

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DISASSEMBLY PROCEDURE

How to remove panel cover

1. Remove head shell and turntable.
2. Secure arm with arm clamp.
3. Remove 5 screws **A** of the panel cover as shown in Fig. 1.

How to remove stater frame coil and F.G detector coil

4. Remove 3 connectors **B** and 2 read wires **C** from power transformer as shown in Fig. 2.
5. Remove 3 screws **D** of the drive circuit board and 3 screws **E** of the stater frame cover as shown in Fig. 2.
6. Disconnect 18 soldered parts **F** of the stater coil and 4 soldered parts **G** of the F.G detector coil as show in Fig. 3.
7. Remove 3 screws **H** of the stater frame ass'y as shown in Fig. 3.

How to remove bottom base ass'y

8. Remove 4 audio insulators. (Counterclockwise rotation)
9. Remove 17 screws and spacer **I** as show in Fig. 4.
10. Remove 11 screws **J** as shown in Fig. 4.

How to remove stylus-illuminator lamp

11. Remove 2 screws **K** of the stylus-illuminator lamp ass'y as shown in Fig. 5.
12. Remove 1 screw **L** as shown in Fig. 6.

How to remove neon-illuminator L.E.D.

13. Remove 4 screws **M** as shown in Fig. 5.
14. Remove 1 circlip **N** and switch cam **O** as shown in Fig. 5.
15. Remove strobo-illuminator case.

How to remove tone arm

16. Remove 4 screws **P** of the arm base cover as shown in Fig. 5.
17. Remove 2 screws **Q** of the phono cord clamber as shown in Fig. 5.
18. Remove phono cord clamber as shown in Fig. 7.
19. Remove 2 screws **R** of the phono cord p.c.b. as shown in Fig. 8.
20. Remove 2 screws **S** as shown in Fig. 8.
21. Remove 2 screws **T** of the silicon oil dumper as shown in Fig. 8.
22. Remove 3 screws **U** as shown in Fig. 8.
23. Remove 2 screws **X** of the tone arm as shown in Fig. 9.

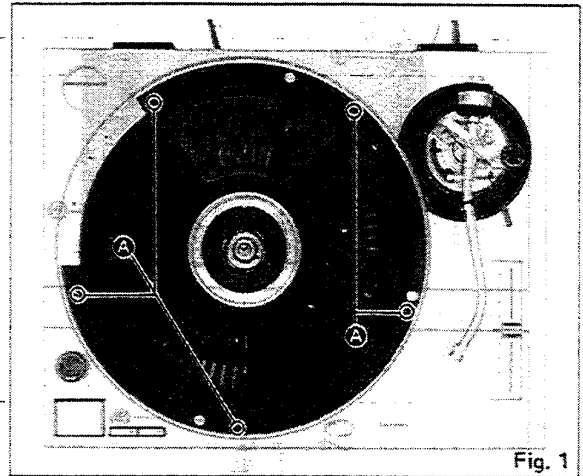


Fig. 1

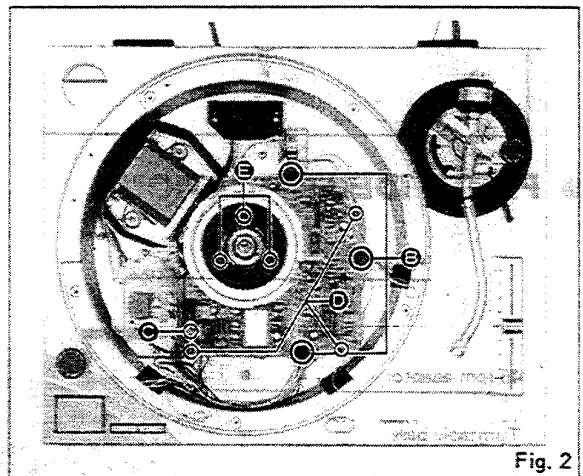


Fig. 2

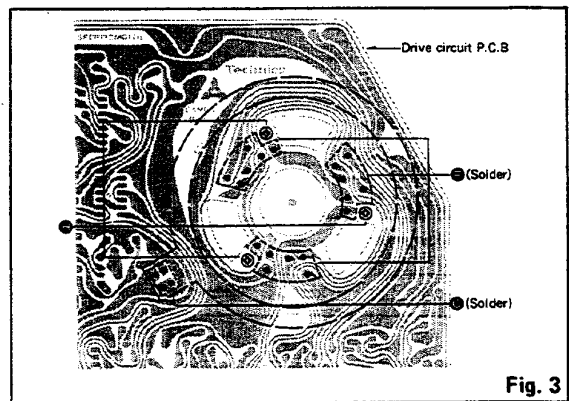


Fig. 3

SL-1200MK2

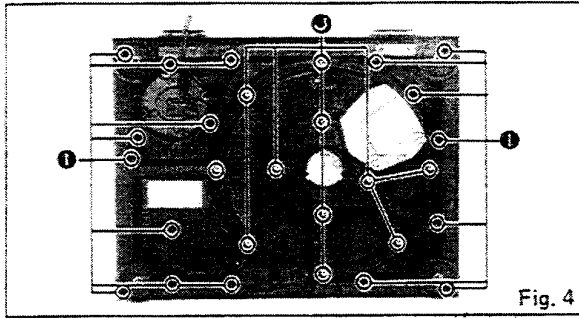


Fig. 4

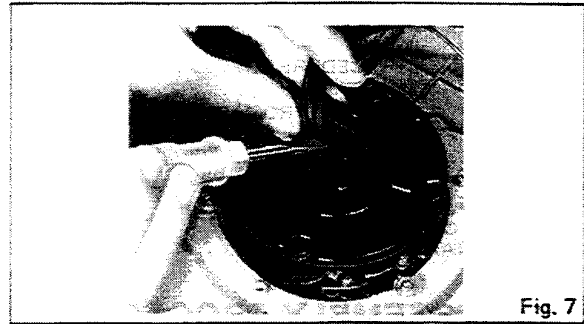


Fig. 7

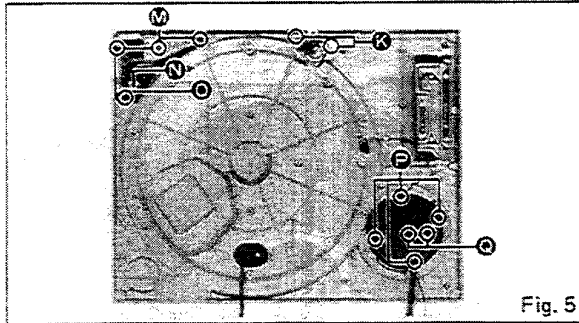


Fig. 5

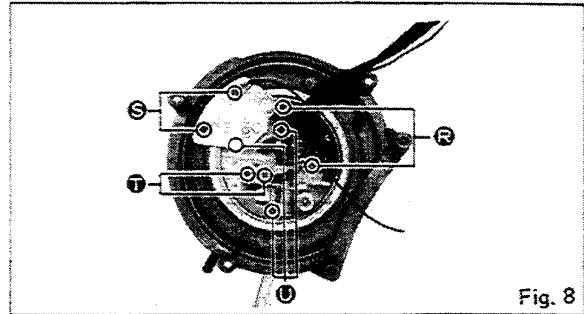


Fig. 8

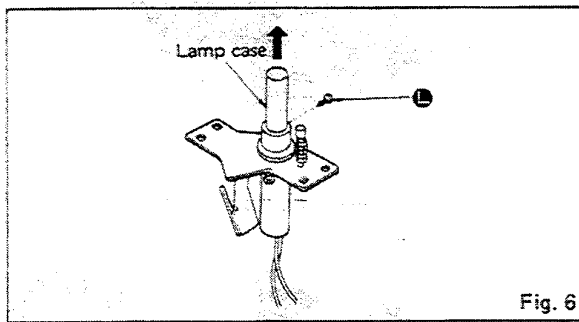


Fig. 6

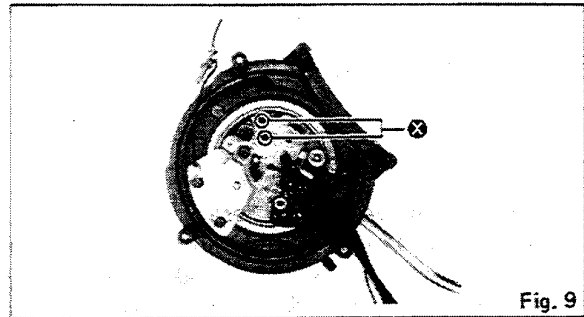


Fig. 9

■ PARTS IDENTIFICATION

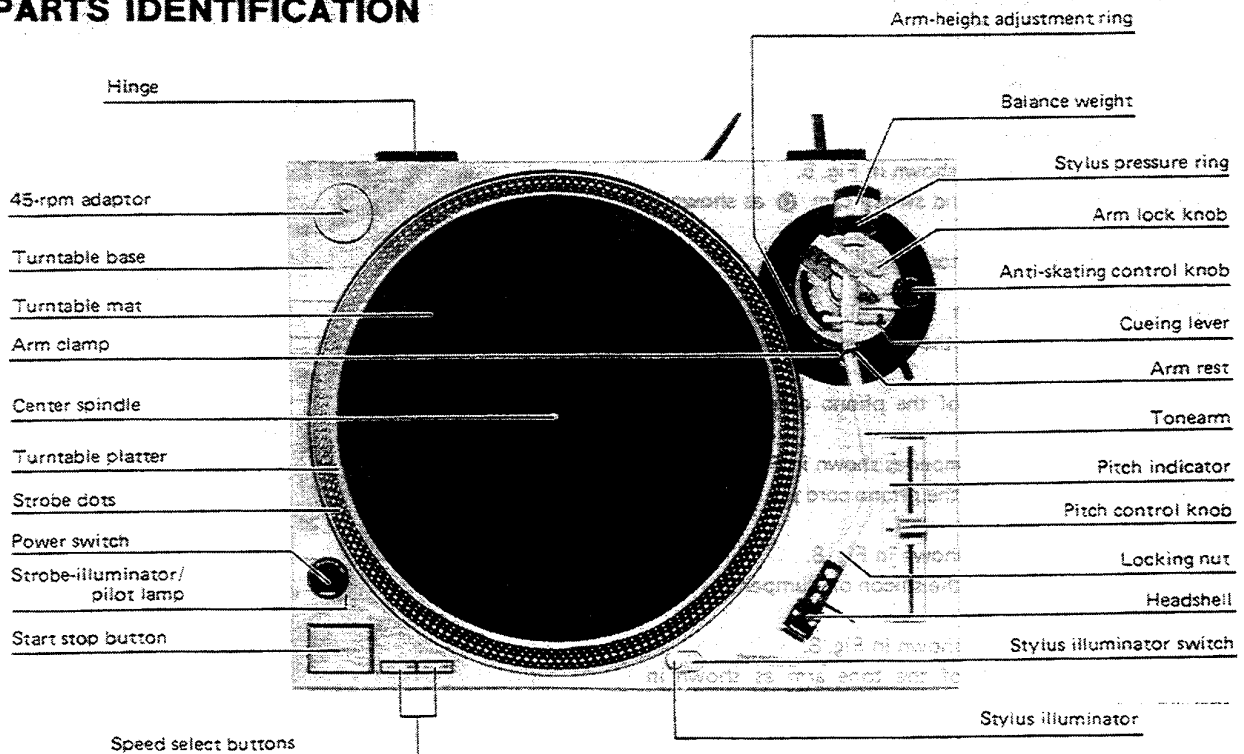


Fig. 10

■ ARM BASE ASSEMBLING PROCEDURE

1. Attach the control ring to the arm base seat. (The control ring should be roated counterclockwise.)
2. Completely tighten the control ring, and then loosen it 1.5~2.5 turns to set the scale to "3". (See Fig. 11)

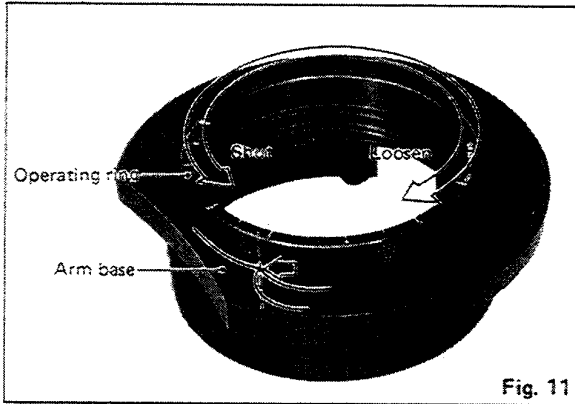


Fig. 11

3. Hold the arm base and set the red line mark on the arm base to the scale near "2", then turn the arm base clockwise. (See Fig. 12)

Note:

Take care not to allow deflection of the predetermined positions of the control ring and arm base seat.

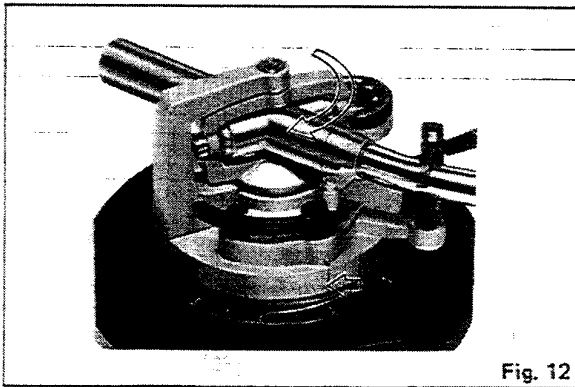


Fig. 12

4. Adjust the arm base so that the red line mark on the arm base is set to the scale "3" of the control ring. Next, secure the positioning base plate with two setscrews. (See Fig. 13)

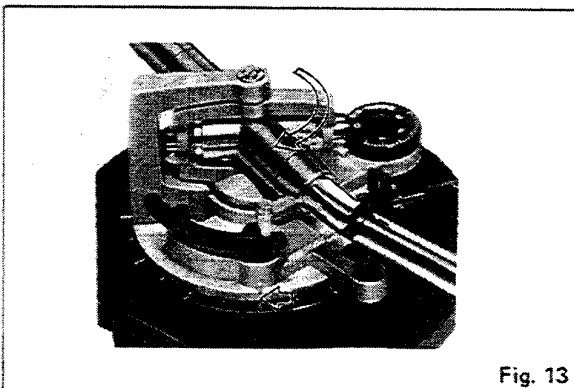


Fig. 13

5. Rotate the control ring and make sure that the arm base shifts within the range of 0~6mm. (See Figs. 14 and 15) If it does not shift within the specified range, the arm base position is deflected. In that case, disassemble the parts and check as specified in step 3.

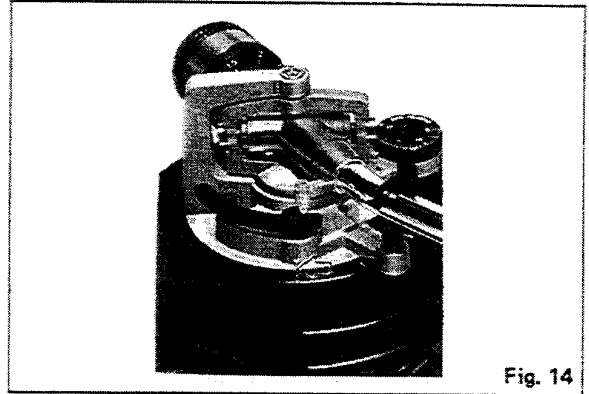


Fig. 14

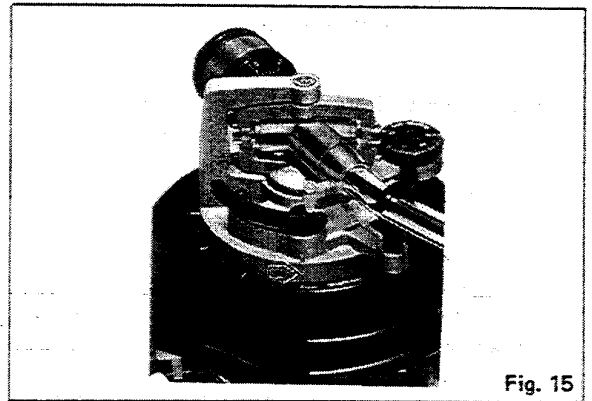


Fig. 15

■ ADJUSTMENT OF CANCELLER SPRING POSITION

If the arm body or PU base plate is replaced, be sure to set the canceller knob to "0.5" and make sure that the canceller spring is in contact with the arm shaft. (See Fig. 16) If the canceller spring is deflected, adjust it as follows:

1. Clamp the arm on the rest.
2. Set the canceller knob to "0.5".
3. Remove the PU base plate, adjust gear A so that the canceller spring is in the position of Fig. 16.
4. Mount the PU base plate onto the arm base and check the spring position.

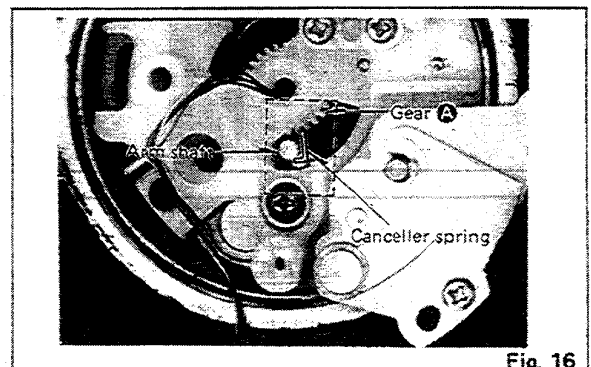


Fig. 16

■ ADJUSTMENTS

Pitch control (fine adjustment of speed) (See Figs. 18 and 19.)

When the pitch control knob is located at the center of the position after turning on the power, the green LED indicator is lit showing the operating condition for the predetermined speed (either 33-1/3 or 45 rpm). The pitch control is variable in a range of about $\pm 8\%$

Adjustment should be done on the basis of indicator scale. Figures on the indicator show approximate percentages for variable pitch control.

When the strobe dots in 4 stages marked at the peripheral edge of the turntable appear to be stationary, variation of individual pitches is shown. (See Fig. 19.)

Note:

The strobe-illumination of this unit employs a strobe-illuminator LED synchronized with the precise quartz frequency.

For fine adjustment of the turntable speed, be sure to effect the adjustment according to the LED illumination. The LED illumination is not synchronized with fluorescent lamps.

Adjustment of arm-lift height (See Figs. 20 and 21.)

The arm-lift height (distance between the stylus tip and record surface when cueing lever is raised) has been adjusted at the factory before shipping to approximately 8-13mm.

If the clearance becomes too narrow or too wide, turn the adjustment screw clockwise or counterclockwise, while pushing the arm lift down.

Clockwise rotation

—distance between the record and stylus tip is decreased.

Counterclockwise rotation

—distance between the record and stylus tip is increased.

Note:

As the adjusting screw has hexagonal head, be sure to make the adjustment while depressing the arm lift, or the screw will not move freely.

Also be sure that the hexagonal head retracts correctly into the arm lift when the latter is released.

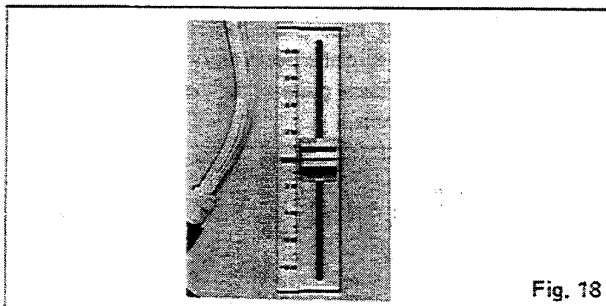


Fig. 18

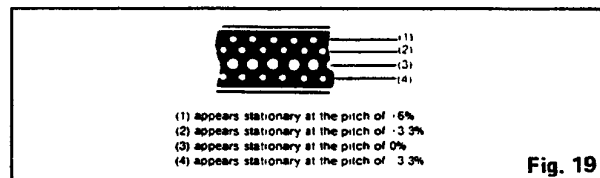


Fig. 19

Adjustment of the tonearm height (See Fig. 22.)

The height of the tonearm can be adjusted up to 6 mm, and a scale is provided on the adjust ring in 0.5 mm increments. Be sure to set the proper arm height using the adjust ring scale and referring to the table.

| Height of cartridge (mm) (H) | Scale reading on the arm-height adjust ring |
|------------------------------|---|
| 15 | 0 |
| 16 | 1 |
| 17 | 2 |
| 18 | 3 |
| 19 | 4 |
| 20 | 5 |
| 21 | 6 |

For example, if the cartridge height is 17.5 mm, the arm-height adjust ring should be positioned at the intermediate location between 2 and 3 on the scale. (See Fig. 22.)

Caution:

Be sure to lock the tonearm by turning the arm lock knob in the direction indicated by the arrow after finishing the height adjustment for the tonearm.

Lubrication (See Fig. 23.)

Apply 2 or 3 drops of oil once after every 2000 hours of operation.

The time interval is much longer than that for conventional type motors (200-500 hours).

Please purchase original oil. (Part number is SFWO 010.)

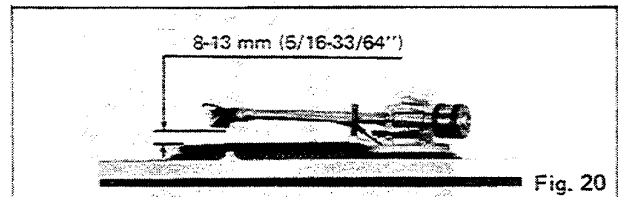


Fig. 20

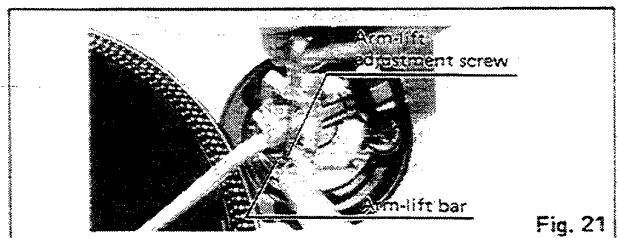


Fig. 21

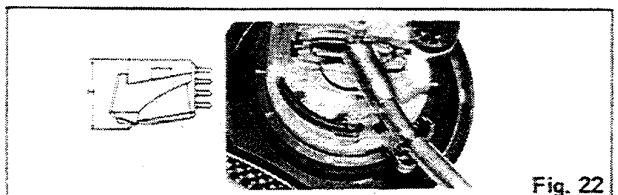


Fig. 22

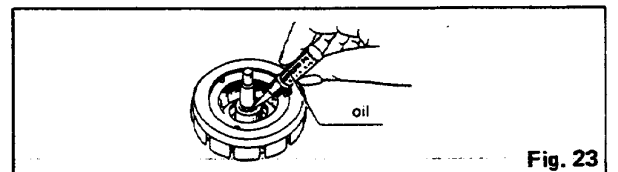


Fig. 23

■ JUSTIERUNGEN

Drehzahl-Feininstellung (Vgl. Abb. 18 und 19.)
Wenn der Drehzahl-Feininsteller beim Einschalten der Stromzufuhr in seiner mittleren Stellung ist, leuchtet der grüne LED-Anzeiger auf und zeigt den Betriebszustand für die vorgeählte Drehzahl (entweder 33-1/3 oder 45 U/min) an. Die Drehzahl ist über einen Bereich von ca. ±8% regelbar.

Die Zahlen auf dem Anzeiger geben ungefähre Prozentzahlen für die Drehzahlregelung an.
Wenn eine der vier Atroskopkopfkupferreihen am Plattenterrand stationär zu bleiben scheint, so wird dadurch die entsprechende Drehzahlabweichung (bzw. Nenn-drehzahl) angezeigt. (Vgl. Abb. 19.)

Anmerkung:
Die Stroboskopbeleuchtung dieses Plattenspieler verwendet eine Stroboskop-LED-Lampe, die mit der präzisen Quarzfrequenz synchronisiert ist.
Die Drehzahl-Feininstellung muß unter der Beleuchtung durch diese LED-Lampe durchgeführt werden. Die LED-Lampe ist nicht mit Leuchtstofflampen synchronisiert.

Justierung der Tonarmhöhe

(Vgl. Abb. 20 und 21.)
Die Tonarmhöhe, d.h. der Abstand zwischen Nadelpitze und Schallplattenoberfläche, wenn der Lift-Hebel angehoben ist, ist werkseitig auf ungefähr 8-13 mm eingestellt worden.

Falls der Abstand zu groß oder zu klein wird, drehen Sie die Justierschraube im Uhrzeigersinn oder Gegenuhzeigersinn während Sie die Tonarmführung nach unten drücken.
—Der Abstand wird kleiner.
—Der Abstand wird größer.

■ JUSTIERUNGEN (Elektrisch)

Anmerkung: ● Nach Teilenummerung von z.B. IC, Transistor, Diode usw. die folgenden Abgleichungen vornehmen.
● Einstellung des Gerätes
1. Netzschalter ON
2. Tonhöhe Kontrolle Mittlere Stellung.

| Abgleichung | Anschlußpunkte | Abgleichmethode |
|---|----------------|---|
| A Abgleich der Tonhöhe Kontrolle ±0% (PITCH) | VR301 | 1. Schalter für Tonhöhenkontrolle auf Mittelstellung. 2. VR301 auf 262,08 kHz ±0,05 kHz abgleichen. |
| B Abgleich des Tonhöhensteuergewinns | VR302 | VR302 auf 2,7K ±0,1 des Widerstandswertes einstellen. |
| C Bremsen Justierung (BRAKE) | VR201 | VR201 innerhalb 120° - 270° nach Halbsignalszeit auf Kompletten Halt Justieren. (Plattentaster wird ein paar Sekunden nach Halt frei.) Halbsignalzeit |



Anmerkung:
Da die Justierschraube einen Sechskantkopf hat, muß die Tonarmführung während des Justierens unbedingt gedrückt gehalten werden, damit sich die Schraube leicht drehen läßt.
Vergewissern Sie sich, daß der Sechskantkopf in die Tonarmführung zurückkehrt, wenn diese besgelen wird.

Justierung des Antiskating-Einstellers
Stellen Sie den Antiskating-Einsteller auf den gleichen Wert ein, wie den Aufdrückdruck. (Vgl. Abb. 13.)

Justierung der Tonarmhöhe (Vgl. Abb. 22.)
Die Tonarmhöhe kann mittels eines Justierriings, dessen Skala in Stufen von 0,5 mm unterteilt ist, um bis zu 6mm reguliert werden. Nehmen Sie die Justierung gemäß nachstehender Tabelle vor.

| Tonabnehmerhöhe (H) | SkalaEinstellung auf dem Tonarmhöhe-Justierriing |
|---------------------|--|
| 15 | 0 |
| 16 | 1 |
| 17 | 2 |
| 18 | 3 |
| 19 | 4 |
| 20 | 5 |
| 21 | 6 |

Falls die Tonarmhöhe beispielsweise 17,5 mm beträgt, sollte der Justierriing zwischen die SkalaEinstellungen 2 und 3 eingestellt werden. (Vgl. Abb. 22.)

Achtung:
Nach erfolgreicher Tonarmhöhe-Justierung muß der Tonarm unbedingt durch Drehen des Tonarmverriegelungskopfs in der Pfeilrichtung festgestellt werden.

3. Drehrheißer 33 U/min.
● Zu verwendende Instrumente
1. Präziführer
2. Signalfrequenzmesser

■ REGLAGES

Reglage d'écart (mise au point exacte de la vitesse)

Lorsque la manette de réglage d'écart est située à la position centrale une fois l'alimentation mise en marche, l'indicateur à diode électro-luminescente (LED) verte s'éclaircit pour indiquer la condition de fonctionnement de la vitesse prédéterminée (soit 33-1/3 ou 45 1/p.m.). Le réglage d'écart est ajustable dans une plage d'à peu près 8%.

La mise au point devra être faite en se basant sur la graduation de l'indicateur. Les chiffres sur l'indicateur montrent les pourcentages approximatifs pour un réglage d'écart variable.

Lorsque les points stroboscopiques sur les quatre gradins du bord périphérique du plateau semblent être immobiles, la variation des écarts individuels est représentée. (Voir Fig. 19.)

Nota:
L'éclairage stroboscopique de cet appareil utilise un illuminomètre stroboscopique à diodes électro-luminescentes (LED) synchronisés avec une fréquence à quartz précise.

Pour une mise au point exacte de la vitesse du plateau, s'assurer d'effectuer le réglage selon l'éclairage de la diode électro-luminescente.
L'éclairage à diodes électro-luminescentes ne se synchronise pas avec l'utilisation de lampes fluorescentes.

Mise au point de la hauteur de l'élevateur du bras

La hauteur de l'élevateur du bras (distance entre l'extrémité de la pointe de lecture et la surface du disque lorsque le levier de pose et de relevage du bras est soulevé) a été réglée en usine avant son départ sur une valeur approximative de 8 - 13 mm.

Si l'écartement devient trop étroit ou trop large, tourner la vis de réglage dans le sens des aiguilles d'une montre ou en sens inverse, tout en abaissant l'élevateur du bras.

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.

■ REGLAGES (Electricité)

Notes: ● Effectuer les réglages suivants après avoir remplacés des éléments tels que les IC, transistors, diodes, et autres.
● Etat de l'appareil
1. Commutateur d'alimentation Marche
2. Commutateur d'alignement de la vitesse Position centrale

| Points de réglage | Points de connexion | Méthode de réglage |
|---|-------------------------------|--|
| A Réglage de la commande d'alignement de la vitesse ±0% (PITCH) | VR301 ① TP27 ② — GROUND | 1. Commutateur de commande d'alignement de la vitesse en position centrale. 2. Régler la VR301 sur une fréquence de 262,08 kHz ±0,05 kHz. |
| B Réglage du gain de commande de la vitesse de rotation du plateau | Contrôleur TP31 et TP32 | Régler la VR302 sur la valeur de la résistance de 2,7K ±0,1. |
| C Réglage du frein (BRAKE) | VR201 | Régler la VR201 sur l'envoi du signal (Le plateau devient libre quelques secondes après l'arrêt.) Signal d'arrêt Plateau 270° 120° |

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.

Nota:
Comme le vis de réglage possède une tête hexagonale, s'assurer d'effectuer la mise au point tout en abaissant l'élevateur du bras, sinon la vis ne bougera pas librement. Vérifier aussi que la tête hexagonale se retire correctement dans l'élevateur du bras quand ce dernier est libéré.

Mise au point de la hauteur du bras de lecture

La hauteur du bras de lecture peut être réglée jusqu'à 6 mm et une graduation est disposée sur la bague de réglage par augmentation de 0,5 mm. S'assurer de régler convenablement la hauteur du bras en utilisant la graduation de la bague et en se référant au tableau ci-dessous.

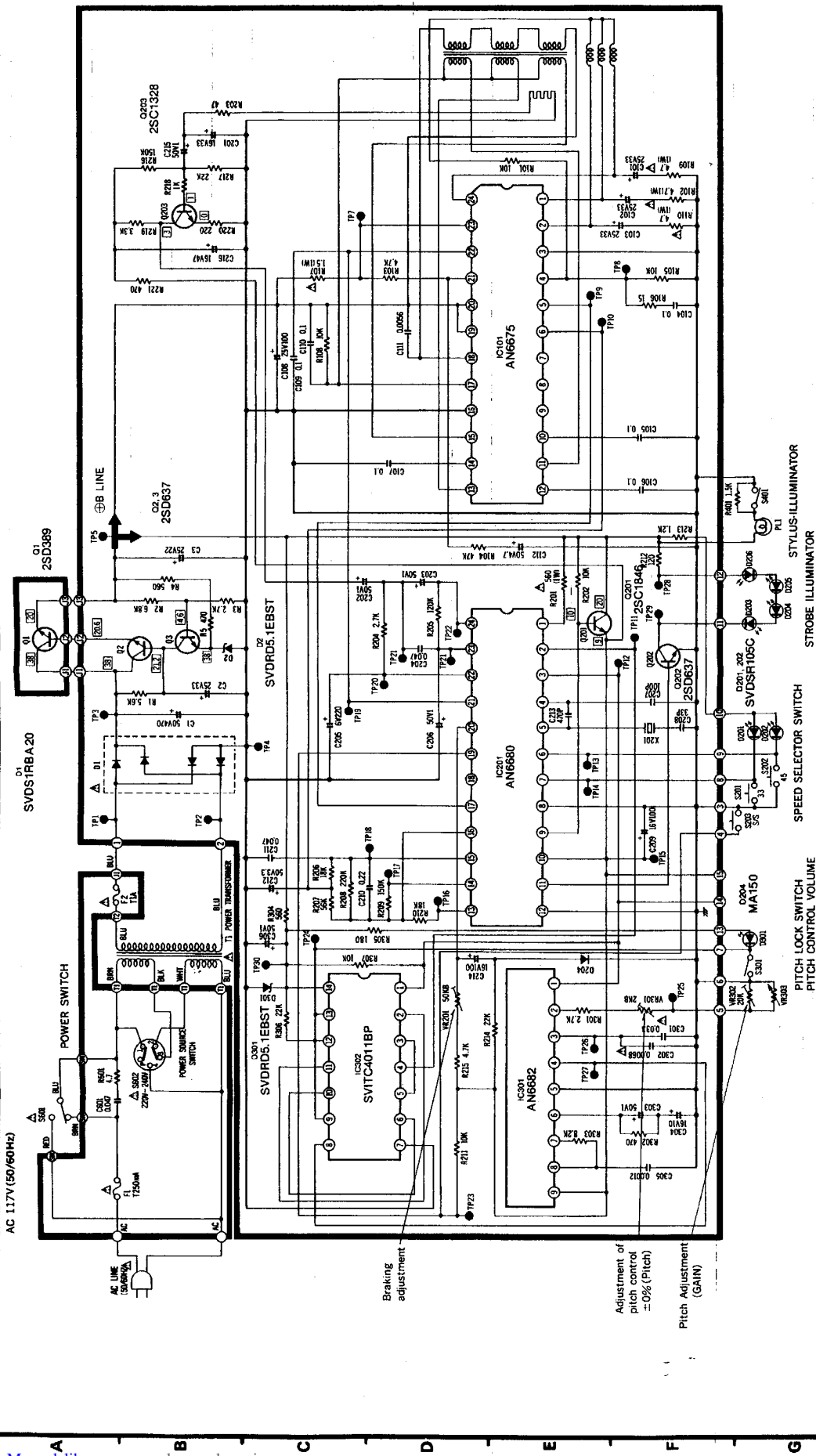
| Hauteur de la cellule de lecture (H) | lecture de la graduation sur la bague de réglage de la hauteur du bras |
|--------------------------------------|--|
| 15 | 0 |
| 16 | 1 |
| 17 | 2 |
| 18 | 3 |
| 19 | 4 |
| 20 | 5 |
| 21 | 6 |

Par exemple, si la hauteur de la cellule de lecture est de 17,5 mm, la bague de réglage de la hauteur du bras devra être positionnée à l'emplacement intermédiaire entre les lectures de la graduation 2 et 3 indiquées sur la graduation. (Voir Fig. 22.)

Avertissement:
S'assurer de bloquer le bras de lecture en tournant la manette de blocage du bras dans la direction indiquée par la flèche, après avoir terminé la mise au point de la hauteur du bras de lecture.

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

1 2 3 4 5 6 7 8 9 10 11 12



■ TERMINAL GUIDE OF TRANSISTOR AND IC

| | | | | | | | |
|--------|--------|-----------------|-----------------|---------|---------|--------|--------|
| AN6675 | AN6680 | AN6682 | SWTC4011BP | 25C1846 | 25C1328 | 25D637 | 25D389 |
| | | | | | | | |
| 13 12 | 13 12 | 1 2 3 4 5 6 7 8 | 1 2 3 4 5 6 7 8 | E C B | E C B | E C B | E C E |

- NOTE:**
- SZ01: Speed selector switch (33-1/3 r.p.m.) in "ON" position, (push condition)
 - SZ02: Speed selector switch (45 r.p.m.) in "OFF" position, (not-push condition)
 - SZ03: Start/Stop switch in "OFF" position, (not-push condition)
 - SZ04: Pitch lock switch in "ON" position, (center position)
 - SZ05: Stylus illuminator switch in "OFF" position.
 - SW01: Power switch in "ON" position.
 - SW02: Power source switch in "220-240V" position.
8. The drive circuit IC voltage and wave form are not indicated in side the schematic diagram.
9. The indicated voltage value are the standard values for the unit, measured by DC electronic circuit tester (high impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
10. Δ indicates that only parts specified by the manufacturer be used for safety.

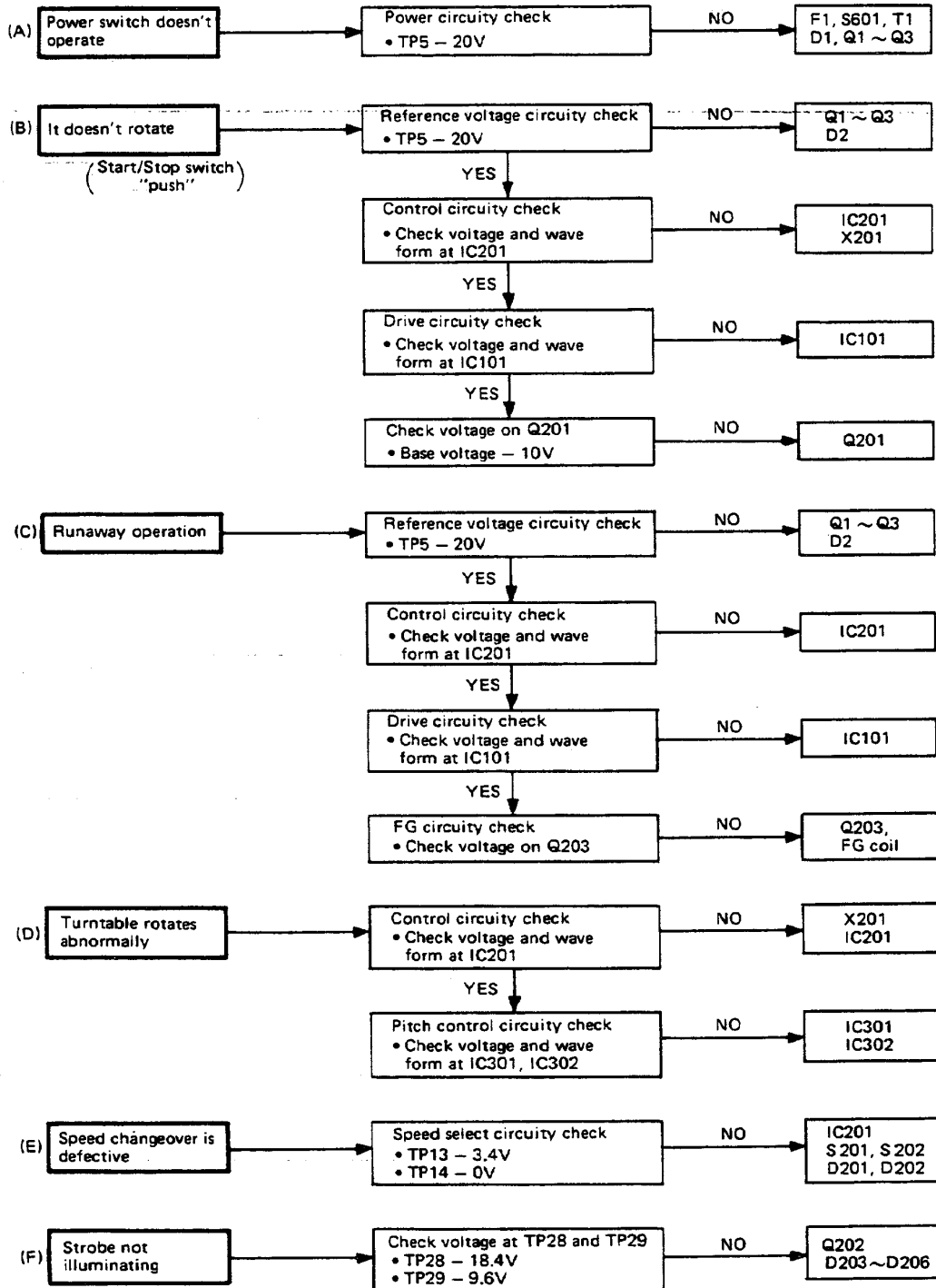
REPLACEMENT PARTS LIST (Electrical)

- Notes:**
- Part numbers are indicated on most mechanical parts. Please use this number for parts orders.
 - Δ indicates that only parts specified by manufacturer be used for safety.
 - SL-1200MK2 (XG) \rightarrow [XG], SL-1200MK2 (XA) \rightarrow [XA], SL-1200MK2 (XGB) \rightarrow [XGB]
SL-1200MK2 (XAL) \rightarrow [XAL], SL-1200MK2 (E) \rightarrow [E]

| Ref. No. | Part No. | Part Name & Description |
|----------------------------|-----------------------|--|
| INTEGRATED CIRCUITS | | |
| IC101 | AN6675 | Integrated Circuit |
| IC201 | AN6680 | Integrated Circuit |
| IC301 | AN6682 | Integrated Circuit |
| IC302 | SVITC4011BP | Integrated Circuit |
| TRANSISTORS | | |
| Q1 | 2SD389A-Q | Transistor |
| Q2, 3, 202 | 2SD637 | Transistor |
| Q201 | 2SC1846-R | Transistor |
| Q203 | 2SC1328-T | Transistor |
| DIODES | | |
| D1 | Δ SVDS1RBA40 | Rectifier |
| D2, 301 | MA1051 | Diode, Zener 5.1V |
| D204 | MA162A | Diode |
| D201, 202 | SVDSR-105C | Light Emitting Diode |
| D203~206 | SVDEBR5505S | Light Emitting Diode |
| D301 | SVDGL-9PG2 | Light Emitting Diode |
| CRYSTAL | | |
| X201 | SVQU306115 | Crystal, 4.19328MHz Oscillator |
| VARIABLE RESISTORS | | |
| VR201 | EVLS6AA00B54 | Braking Adjustment (BRAKE), 50k Ω (B) |
| VR301 | EVMH2GA00B53 | Adjustment of Pitch Control \pm 0%(PITCH), 5k Ω (B) |
| VR302 | EVLS6AA00B54 | Pitch Adjustment (Gain) 50k Ω |
| VR303 | EVBJ05C19ABE | Pitch Control Volume |
| SWITCHES | | |
| S201 | EVQP5R04K | Switch, Speed Selector (33-1/3 r.p.m.) |
| S202 | EVQP5R04K | Switch, Speed Selector (45 r.p.m.) |
| S203 | SFDS5SGL13C | Switch, Start/Stop |
| S401 | SFDS22MSL-4 | Switch, Stylus-Illuminator |
| S601 | Δ SFDS5SGL13S | Switch, Power |
| S602 | Δ SFDSHXW01317 | Switch, Power Source |
| LAMP | | |
| PL1 | SFDN172-01 | Lamp, Stylus-illuminator |
| TRANSFORMER | | |
| T1 | Δ SLTF5900 | Power Transformer |
| FUSE | | |
| F1 | Δ XBA2C025T1A | Fuse, T250 mA |
| F2 | Δ XBA2C10TRO | Fuse, T1A |
| RESISTORS | | |
| R1 | ERD25FJ562 | Carbon, 5.6k Ω , 1/4W, \pm 5% |
| R2 | ERD25FJ682 | Carbon, 6.8k Ω , 1/4W, \pm 5% |
| R3 | ERD25FJ272 | Carbon, 2.7k Ω , 1/4W, \pm 5% |
| R4 | ERD25FJ561 | Carbon, 560 Ω , 1/4W, \pm 5% |
| R5 | ERD25FJ471 | Carbon, 470 Ω , 1/4W, \pm 5% |
| R101 | ERD25FJ103 | Carbon, 10k Ω , 1/4W, \pm 5% |
| R102 | Δ ERX1ANJ4R7 | Metal Film, 4.7 Ω , 1W, \pm 5% |
| R103 | ERD25FJ472 | Carbon, 4.7k Ω , 1/4W, \pm 5% |
| R104 | ERD25TJ473 | Carbon, 47k Ω , 1/4W, \pm 5% |
| R105 | ERD25FJ103 | Carbon, 10k Ω , 1/4W, \pm 5% |
| R106 | ERD25FJ150 | Carbon, 15 Ω , 1/4W, \pm 5% |

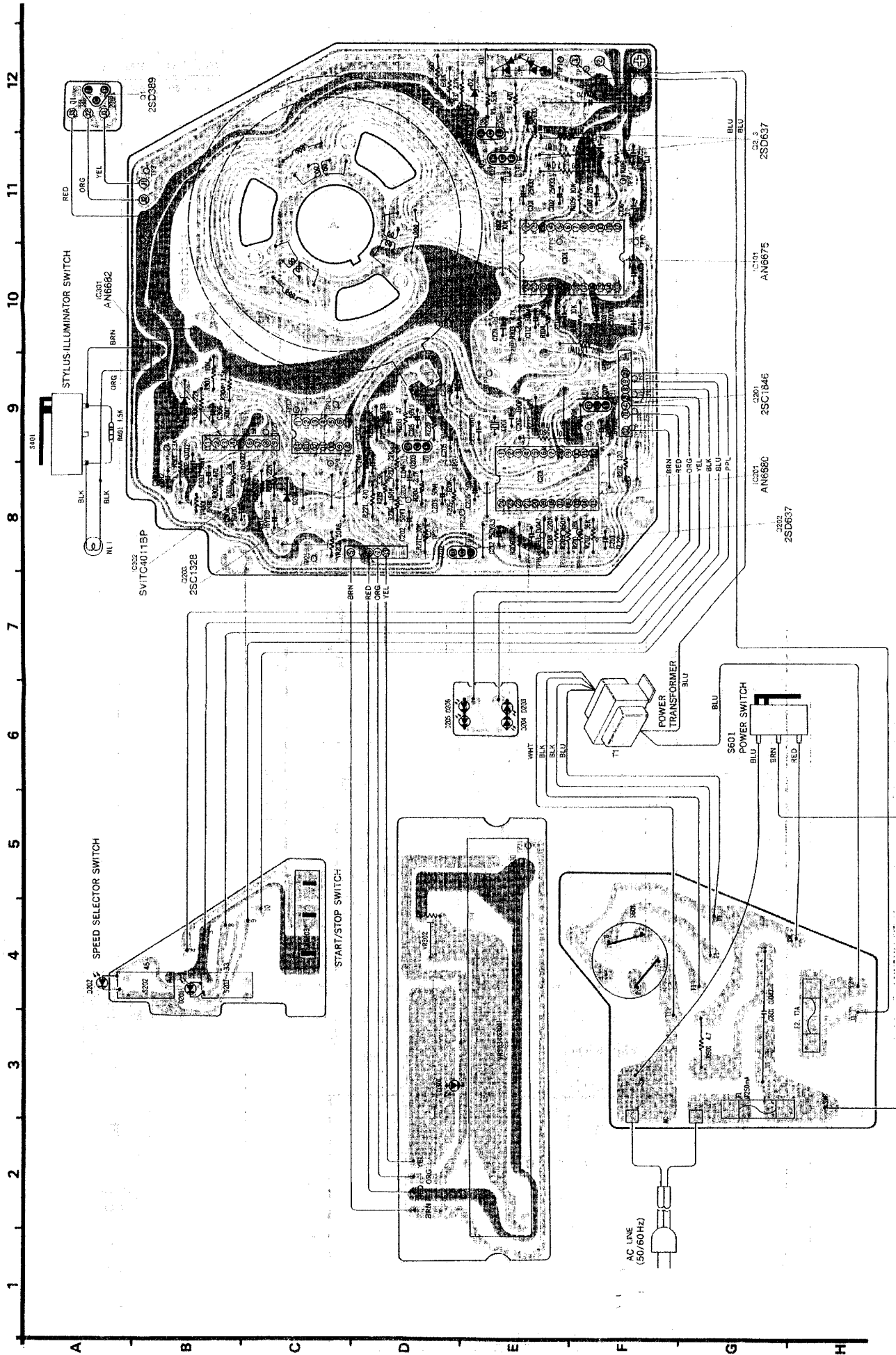
| Ref. No. | Part No. | Part Name & Description |
|-------------------|---------------------|--|
| R107 | Δ ERX1ANJ1R5 | Metal Film, 1.5 Ω , 1W, \pm 5% |
| R108 | ERD25FJ103 | Carbon, 10k Ω , 1/4W, \pm 5% |
| R109, 110 | Δ ERX1ANJ4R7 | Metal Film, 4.7 Ω , 1W, \pm 5% |
| R201 | Δ ERG1ANJ561 | Metal Oxide, 560 Ω , 1W, \pm 5% |
| R202 | ERD25FJ103 | Carbon, 10k Ω , 1/4W, \pm 5% |
| R203 | ERD25FJ470 | Carbon, 47 Ω , 1/4W, \pm 5% |
| R204 | ERD25FJ272 | Carbon, 2.7k Ω , 1/4W, \pm 5% |
| R205 | ERD25TJ124 | Carbon, 120k Ω , 1/4W, \pm 5% |
| R206 | ERD25TJ183 | Carbon, 18k Ω , 1/4W, \pm 5% |
| R207 | ERD25TJ563 | Carbon, 56k Ω , 1/4W, \pm 5% |
| R208 | ERD25TJ224 | Carbon, 220k Ω , 1/4W, \pm 5% |
| R209 | ERD25TJ154 | Carbon, 150k Ω , 1/4W, \pm 5% |
| R210 | ERD25TJ183 | Carbon, 18k Ω , 1/4W, \pm 5% |
| R211 | ERD25FJ103 | Carbon, 10k Ω , 1/4W, \pm 5% |
| R212 | ERD25FJ121 | Carbon, 120 Ω , 1/4W, \pm 5% |
| R213 | ERD25FJ122 | Carbon, 1.2k Ω , 1/4W, \pm 5% |
| R214 | ERD25TJ223 | Carbon, 22k Ω , 1/4W, \pm 5% |
| R215 | ERD25FJ472 | Carbon, 4.7k Ω , 1/4W, \pm 5% |
| R216 | ERD25TJ154 | Carbon, 150k Ω , 1/4W, \pm 5% |
| R217 | ERD25TJ223 | Carbon, 22k Ω , 1/4W, \pm 5% |
| R218 | ERD25FJ102 | Carbon, 1k Ω , 1/4W, \pm 5% |
| R219 | ERD25FJ332 | Carbon, 3.3k Ω , 1/4W, \pm 5% |
| R220 | ERD25FJ221 | Carbon, 220 Ω , 1/4W, \pm 5% |
| R221 | ERD25FJ471 | Carbon, 470 Ω , 1/4W, \pm 5% |
| R301 | ERO25CKF3301 | Metal Film, 3.3k Ω , 1/4W, \pm 1% |
| R302 | ERD25FJ471 | Carbon, 470 Ω , 1/4W, \pm 5% |
| R303 | ERD25FJ822 | Carbon, 8.2k Ω , 1/4W, \pm 5% |
| R304 | ERD25FJ152 | Carbon, 1.5k Ω , 1/4W, \pm 5% |
| R306 | ERD25TJ223 | Carbon, 22k Ω , 1/4W, \pm 5% |
| R601 | ERD25FJ4R7 | Carbon, 4.7 Ω , 1/4W, \pm 5% |
| CAPACITORS | | |
| C1 | ECEB1HS471 | Electrolytic, 470 μ F, 50V |
| C2 | ECEA1VS330 | Electrolytic, 33 μ F, 35V |
| C3 | ECEA1ES220 | Electrolytic, 22 μ F, 25V |
| C101, 102 | ECEA1VS330 | Electrolytic, 33 μ F, 35V |
| C103 | ECEA1VS330 | Electrolytic, 33 μ F, 35V |
| C104, 105 | ECQM1H104KZ | Polyester, 0.1 μ F, 50V, \pm 10% |
| C106, 107 | ECQM1H104KZ | Polyester, 0.1 μ F, 50V, \pm 10% |
| C108 | ECEA1ES101 | Electrolytic, 100 μ F, 25V |
| C109, 110 | ECQM1H104KZ | Polyester, 0.1 μ F, 50V, \pm 10% |
| C111 | ECQM1H562KZ | Polyester, 0.0056 μ F, 50V, \pm 10% |
| C112 | ECEA1JS4R7 | Electrolytic, 4.7 μ F, 63V |
| C201 | ECEA1CS330 | Electrolytic, 33 μ F, 16V |
| C202, 203 | ECEA50Z1 | Electrolytic, 1 μ F, 50V |
| C204 | ECQM1H473KZ | Polyester, 0.047 μ F, 50V, \pm 10% |
| C205 | ECEA1AS221 | Electrolytic, 220 μ F, 10V |
| C206 | ECEA50Z1 | Electrolytic, 1 μ F, 50V |
| C207 | ECCD1H101K | Ceramic, 100pF, 50V, \pm 10% |
| C208 | ECCD1H390K | Ceramic, 39pF, 50V, \pm 10% |
| C209 | ECEA1ES101 | Electrolytic, 100 μ F, 16V |
| C210 | ECQM1H224KZ | Polyester, 0.22 μ F, 50V, \pm 10% |
| C211 | ECQM1H473KZ | Polyester, 0.047 μ F, 50V, \pm 10% |
| C212 | ECEA50Z3R3 | Electrolytic, 3.3 μ F, 50V |
| C213 | ECCD1H471K | Ceramic, 470pF, 50V, \pm 10% |
| C214 | ECEA1ES101 | Electrolytic, 100 μ F, 25V |
| C215 | ECEA50Z1 | Electrolytic, 1 μ F, 50V |
| C216 | ECEA1ES470 | Electrolytic, 47 μ F, 25V |
| C301, 302 | Δ ECQK1123FZ | Polyester, 0.012 μ F, 125V, \pm 1% |
| C303 | ECEA50Z1 | Electrolytic, 1 μ F, 50V |
| C304 | ECEA1HS100 | Electrolytic, 10 μ F, 50V |
| C305 | ECQM1H122KZ | Polyester, 0.0012 μ F, 50V, \pm 10% |
| C306 | ECEA50Z1 | Electrolytic, 1 μ F, 50V |
| C601 | ECNC4A473M | Paper, 0.047 μ F, 400V, \pm 20% |

■ TROUBLE SHOOTING



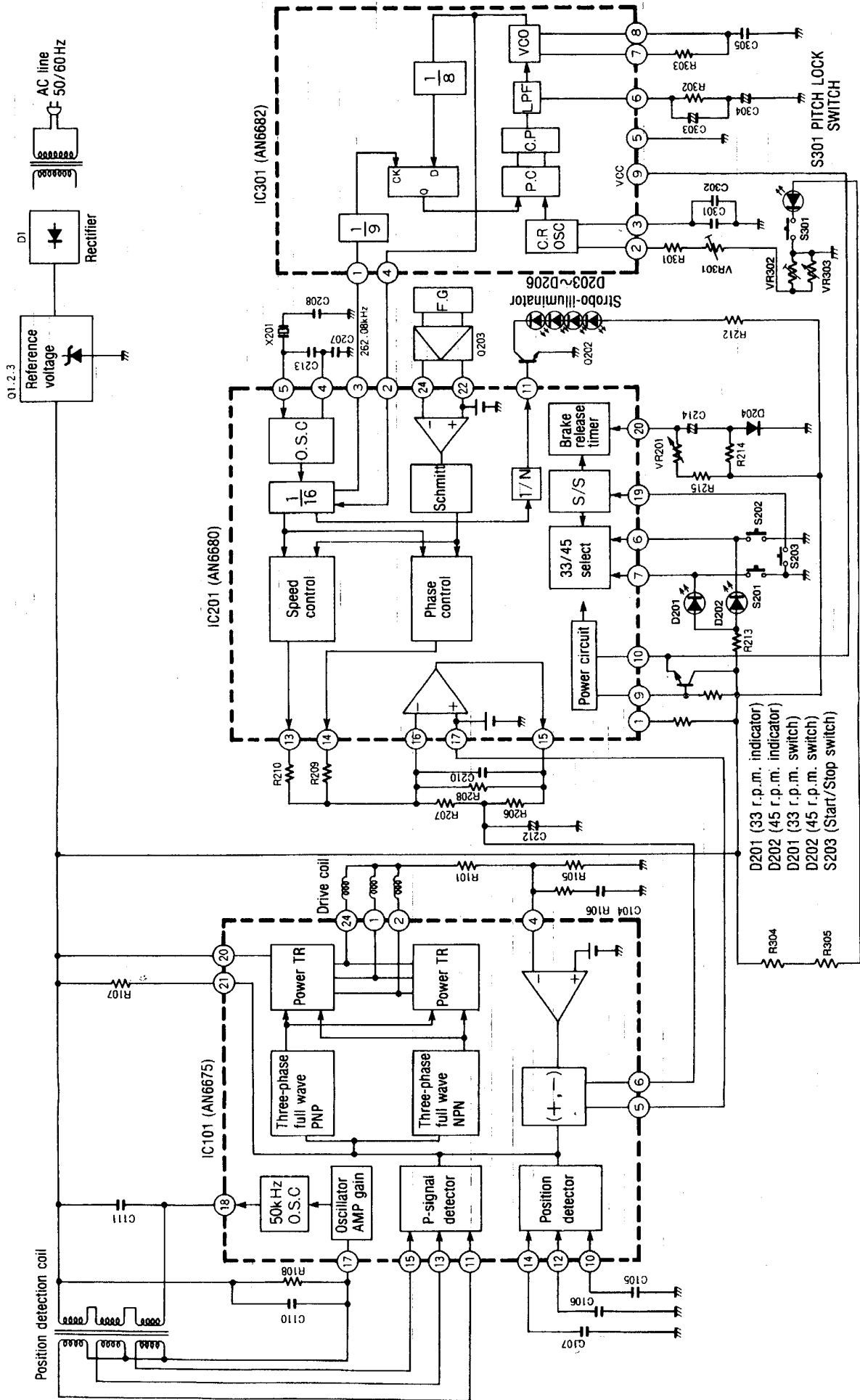
Printed Circuit Board

+ B'line
 Earth (Ground) lines



SL-1200MK2 SL-1200MK2

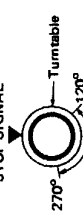
BLOCK DIAGRAM



SL-1200MK2 SL-1200MK2

ADJUSTMENT (Electrical)

- Notes: ● Make the following adjustments after replacing parts such as IC's, transistors, diodes, etc.
- Condition of the set.
 - 1. Power switch ON
 - 2. Pitch control Center position
 - 3. Speed selector switch 33-1/3 r.p.m.
 - Instruments to be used
 - 1. Tester
 - 2. Frequency counter

| Adjustment | Connection Points | Adjustment Point | Adjustment Method |
|--|---|------------------|--|
| A Adjustment of pitch control $\pm 0\%$ (PITCH) | Frequency counter ⊕ TP27 ⊖ GROUND | VR301 | 1. Pitch control switch to center position. 2. Adjust VR301 for 262.08 kHz ± 0.05 kHz of frequency. |
| B Adjustment of pitch control gain | Tester TP31 and TP32 | VR302 | Adjust VR302 for 2.7 k Ω ± 0.1 of resistance value |
| C Braking adjustment (BRAKE) | — | VR201 | Adjust VR201 for complete stop within 120° ~ 270° after stop signal initiated. (Turntable becomes free a few seconds after stop) STOP SIGNAL  |

REFERENCE VOLTAGE AND WAVEFORM AT EACH IC

IC101 (AM6675T)

| | Start | Stop | Start | Stop |
|---|-------|------|-------|------------------|
| ① | 2V | 2V | ⑩ | 15V |
| ② | 2V | 2V | ⑪ | Same as at right |
| ③ | 0V | 0V | ⑫ | 20V |
| ④ | 5V | 5V | ⑬ | 20V |
| ⑤ | 5V | 6.6V | ⑭ | 15V |
| ⑥ | 0V | 0V | ⑮ | 0.2V |
| ⑦ | 5V | 5V | ⑯ | 20V |
| ⑧ | 0V | 0V | ⑰ | 1.7V |
| ⑨ | 15V | 15V | ⑱ | 0V |
| ⑩ | 15V | 15V | ⑲ | 15V |

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IC201 (AN6680)

| | Start | Stop | Start | Stop |
|---|------------------|------------------|-------|------|
| ① | 2.5V | 2.5V | ⑥ | 0V |
| ② | Same as at right | 9.8V | ⑦ | 9.8V |
| ③ | Same as at right | 10V | ⑧ | 10V |
| ④ | Same as at right | Same as at right | ⑩ | 7.5V |
| ⑤ | Same as at right | 0.2V | ⑪ | 0V |
| ⑥ | 3.4V | 3.4V | ⑫ | 0V |
| ⑦ | 0V | 0V | ⑬ | 0V |
| | | | ⑭ | 3V |
| | | | ⑮ | 2.8V |

IC301 (AN6682)

| | Start | Stop | Start | Stop |
|---|------------------|------------------|-------|------------------|
| ① | Same as at right | Same as at right | ④ | Same as at right |
| ② | Same as at right | 0V | ⑤ | 0V |
| ③ | Same as at right | 3.9V | ⑥ | 3.9V |
| | | | ⑦ | Same as at right |

IC302 (SVTC4011BP)

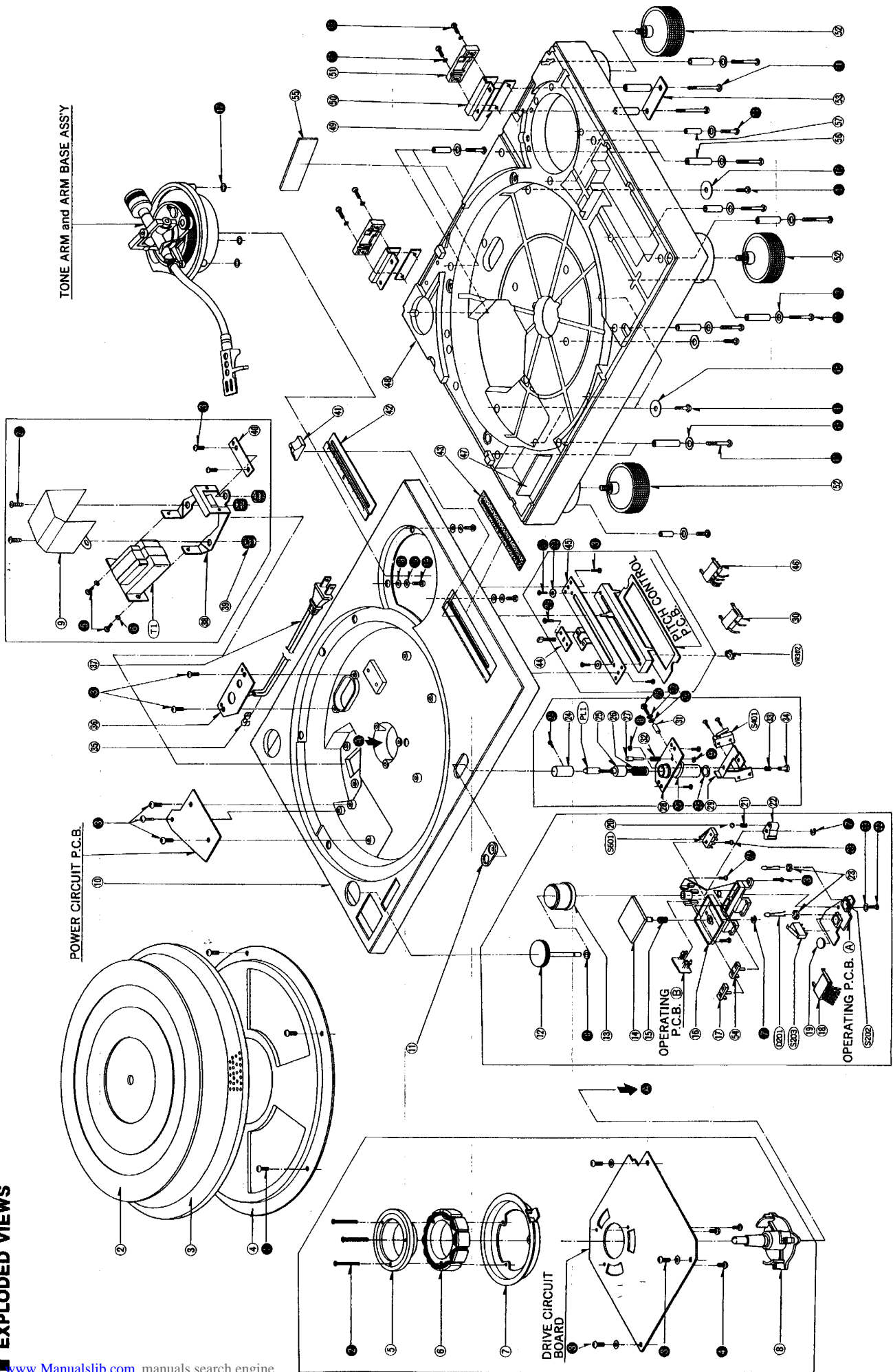
| | Start | Stop | Start | Stop |
|---|------------------|------------------|-------|------|
| ① | Same as at right | Same as at right | ⑤ | 5V |
| ② | 5V | 5V | ⑥ | 5V |
| ③ | Same as at right | 0V | ⑦ | 0.6V |
| ④ | 5V | 5V | ⑧ | 0.6V |
| | | | ⑨ | 5V |

IC202 (2SD637)

| | Start | Stop |
|---|------------------|------|
| E | 0V | 0V |
| C | Same as at right | 0V |
| B | Same as at right | 0V |

18

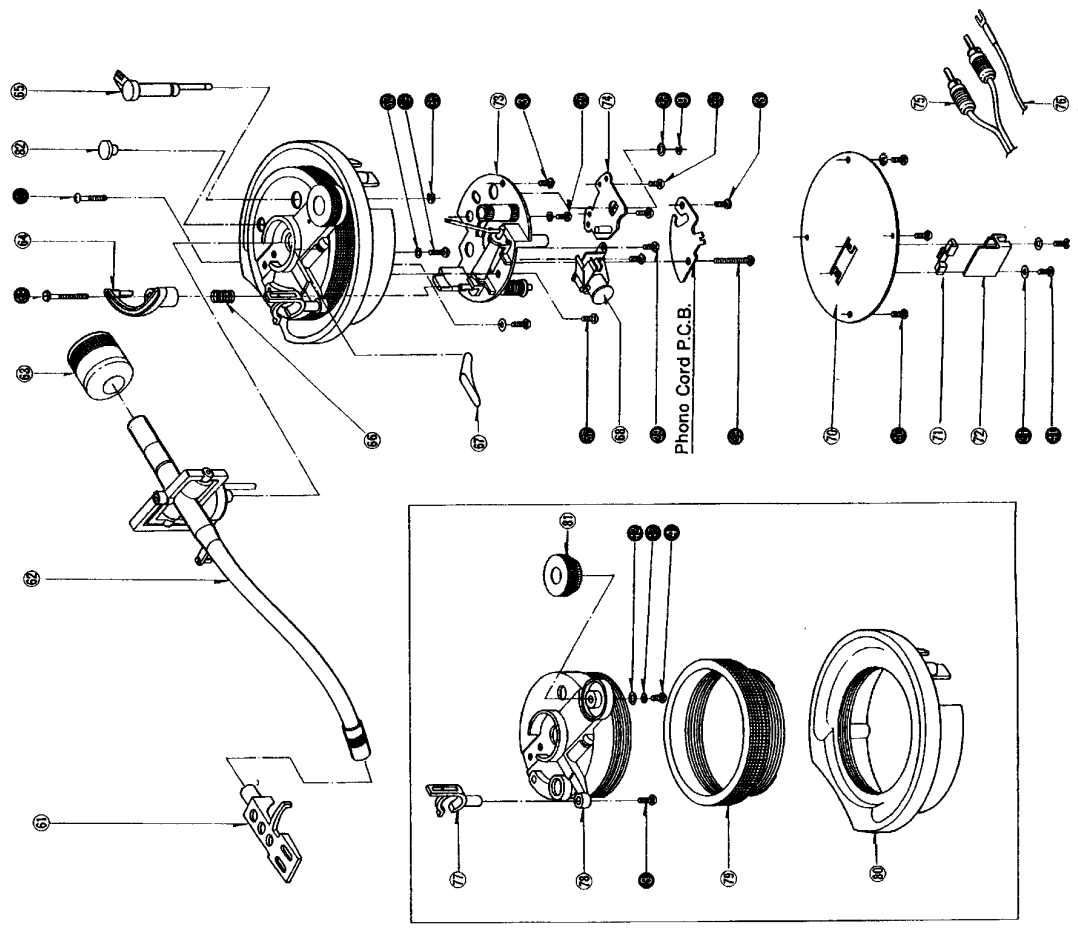
EXPLODED VIEWS



REPLACEMENT PARTS LIST (Mechanical)

Notes: 1. Part numbers are indicated on most mechanical parts.
 2. Δ indicates that only parts specified by manufacturer be used for safety.
 3. SL-1200MK2 (XG) \rightarrow [XG], SL-1200MK2 (XA) \rightarrow [XA], SL-1200MK2 (E) \rightarrow [E]

| Ref. No. | Part No. | Part Name & Description | Ref. No. | Part No. | Part Name & Description |
|------------------------------|---------------|--------------------------------------|-------------------------------------|-------------|---------------------------------|
| 1 | SFAD122-01A | Dust Cover | 74 | SFPZB12201K | Plate, Position Fix |
| 2 | SFTE172-01Z | Turntable Axis | 75 | SFDH028-01 | Phono Cord |
| 3 | SFTE172-01Z | Turntable | 76 | SFEL008-01E | Ground Wire |
| 4 | SFUMG020-01 | Cover, Turntable | 77 | SFPR17201K | Arm Rest |
| 5 | SFUMG020-01 | Cover, Stator Frame Assy | 78 | SFPRD17203 | Arm Base |
| 6 | SFUMG20-01A | Stator Frame | 79 | SFPRB17201S | Ring, Arm Base Operation |
| 7 | SFWM272-01E | FG Detector Coil Assy | 80 | SFPRD12201 | Bracket, Arm Base |
| 8 | SFUM2020-01A | Shaft, Stator Frame Assy | 81 | SFPRD12201 | Bracket, Inductor Force Control |
| 9 | SFUP122-12 | Plate, Shield | 82 | SFEG132-01 | Cap, Rubber |
| 10 | SFAC122-01 | Cabinet | SCREWS, WASHERS and CIRCLIPS | | |
| 11 | SFUM172-04 | Ornament, Stylus/Illuminator | ● | XTN3-48BFZ | Screw |
| 12 | SF K K122-01 | Knob, Power Switch | ● | SF-XG020-02 | Screw |
| 13 | SF K K122-01E | Case, Strobe-Illuminator | ● | XTN3-48B | Screw |
| 14 | SF K T015-06 | Knob, Start/Stop Switch | ● | XTN3-48B | Screw |
| 15 | SFQA122-01 | Spring, Start/Stop Knob | ● | XTN3-48B | Screw |
| 16 | SFUM122-01 | Base, Operation | ● | XW4A8 | Washer |
| 17 | SF K T015-01E | Knob, Speed Selector (33-1/3 r.p.m.) | ● | XUC3FT | Circlip |
| 18 | SF K T015-01E | Knob, Speed Selector (45 r.p.m.) | ● | XUC2FT | Circlip |
| 19 | SFEG272-01 | Connector, Stylus (Speed Selector) | ● | SF-XW910-02 | Washer |
| 20 | SF YB5-32 | Ball, Switch Cam | ● | XTN3-48BFZ | Screw |
| 21 | SFQA520-01 | Spring, Switch Cam | ● | XW5E12-12 | Washer |
| 22 | SFUM122-03 | Cam, Switch | ● | XTN3-25BFZ | Screw |
| 23 | SFUM015-11 | Spacer, LED | ● | SF-XW122-01 | Washer |
| 24 | SF K K172-01 | Cover, Lamp | ● | XW3E10 | Washer |
| 25 | SF K B172-02 | Boss, Drive | ● | SFPEW1100 | Washer |
| 26 | SF K B172-02 | Spring, Drive Base | ● | SFPEW1100 | Washer |
| 27 | SF K J172-01 | Pin, Lock, Case | ● | XSN3-48S | Screw |
| 28 | SFUP122-02E | Bracket, Stylus/Illuminator | ● | XTV3-48BFN | Screw |
| 29 | SFUP122-03 | Plate, Lock Operation | ● | XTN3-108 | Screw |
| 30 | SFDJ122-03E | Connector, 3-PIN | ● | XTN3-108 | Screw |
| 31 | SF XG172-01 | Pin, Guide | ● | XSN17-3FY | Screw |
| 32 | SFQA520-01 | Spring, Lock, Canceler Pin | ● | SF-XB928-1 | Washer |
| 33 | SFQA001-02 | Spring, Lock, Operating Plate Mt'g | ● | XTM3-48B | Screw |
| 34 | SFQA001-02 | Pin, Lock, Operating Plate Mt'g | ● | XUB914FT | Circlip |
| 35 | SFQA001-02 | Pin, Lock, Operating Plate Mt'g | ● | SFUZ172-05 | O Ring |
| 36 | SFHK005 | Chamber, AC Cord | ● | XTN3-48B | Screw |
| 37 | SFUP025-01 | Bracket, AC Cord | ● | XW4A3FZ | Washer |
| 38 | RJA232C | Bracket, AC Cord | ● | XW3 | Washer |
| 39 | SFUC1208M | Bracket, Power Transformer | ● | XW3 | Washer |
| 40 | SFUC122-01 | Cushion, Power Transformer | ● | XUC3FT | Circlip |
| 41 | SF K K122-02 | Spacer, Power Transformer | ● | XTM3-48B | Screw |
| 42 | SF K K122-03 | Bracket, Pitch Control Volume | ● | XTV3-48BFN | Screw |
| 43 | SFUZ122-01 | Shading Cloth, Pitch Control Volume | ● | XW3 | Washer |
| 44 | SFUP122-09 | Holder, LED | ● | XW3 | Washer |
| 45 | SFUP122-01 | Bracket, Pitch Control Volume | ● | XW3 | Washer |
| 46 | SFDJ122-01E | Connector, 4-PIN | ● | XW3 | Washer |
| 47 | SFUP122-13 | Supporter, Bottom Base | ● | XW3 | Washer |
| 48 | SFUP122-01 | Base, Bottom | ● | XW3 | Washer |
| 49 | SFUP122-01 | Supporter (L), Hinge | ● | XW3 | Washer |
| 50 | SFUP122-04 | Supporter (R), Hinge | ● | XW3 | Washer |
| 51 | SFUM170-07 | Case, Hinge | ● | XW3 | Washer |
| 52 | SFUC122-02E | Audio Insulator | ● | XW3 | Washer |
| 53 | SFUP122-06 | Supporter (C), Hinge | ● | XW3 | Washer |
| 54 | SF K T015-02E | Knob, Speed Selector (45 r.p.m.) | ● | XW3 | Washer |
| 55 | SFNN122-01 | Name Plate | ● | XW3 | Washer |
| 56 | SFNN122-01 | Name Plate | ● | XW3 | Washer |
| 57 | SF XG122-02 | Pin, Hinge Assy | ● | XW3 | Washer |
| 58 | SFAT122-01A | Hinge Assy | ● | XW3 | Washer |
| TONE ARM and ARM BASE | | | | | |
| 61 | SFPC31001K | Head Shell | 70 | SFNU122Y01 | Instruction Book |
| 62 | SFPC31001K | Arm Assy | 71 | SFNU122Y01 | Instruction Book |
| 63 | SFPC31001K | Base | 72 | SFNU122Y01 | Adapter, 45 r.p.m. |
| 64 | SFPR18201K | Lift Assy | 73 | SFWE010 | Nut, Cartridge |
| 65 | SFPC281702K | Knob, Arm Base Lock | 74 | SFREN3302 | Washer, Cartridge |
| 66 | SFQA829-03 | Spring, Arm Lift | 75 | SFREN8001 | Screw, Cartridge |
| 67 | SFPA813202 | Knob, Arm Lift | 76 | SFPEV9801 | Screw, Cartridge |
| 68 | SFPL18202K | Oil Damper | 77 | SF KOT35-01 | Oversizing Gauge |
| 70 | SFUM170-06 | Plate, Arm Base Cover | 78 | SFPC28-801 | Shell Weight |
| 71 | SFUM170-06 | Spacer, Photo Cord | 79 | SFPC28-801 | Shell Weight |
| 72 | SFQA829-04 | Cleaner, Photo Cord | 80 | SFPC28-801 | Shell Weight |
| 73 | SFPA318201K | Top Arm, Frang. Plate Assy | 81 | SFPC28-801 | Shell Weight |



EXPLODED VIEWS

— NOTE —

You can then clearly see the spaces between the selections on the record, and cue the arm exactly where you want it. The illuminator can then be pushed back down into the base.

High sensitivity, low mass, gimbal suspension tonearm

The highly sensitive tonearm features a genuine gimbal suspension, the rotational center of which is precisely defined at one point. Bearings are finished to a tolerance of ± 0.5 microns. This and the extra-closeness of pivot center to the bearings, result in the minimal friction of 7 mg (0.007 g) for both horizontal and vertical movement. Add to this the low 12-gram effective tonearm mass (including headshell, without cartridge) and you have a tonearm compatible with the wide range of compliances found in today's cartridges. If you choose a popular high compliance MM cartridge, the low range resonance frequency will appear in the correct area to avoid warp frequencies of records, but without entering the low end of the audio spectrum. This tonearm is provided with a computer designed, light-weight, high-rigidity headshell made of single-piece diecast aluminum to resist partial vibration. The universal design allows headshell interchangeability. Contacts are gold-plated.

Helicoid tonearm height adjustment

Arm height is adjustable within a range of 6 mm to accommodate varying cartridge dimensions. Adjustments are done with a precision-made helicoid.

Other fine features

- Quick stops are achieved with a fully electronic braking system.
- A strobe illuminator is provided. The stroboscope is controlled by the extremely stable quartz oscillator, rather than potentially unstable AC line frequency.
- Power on/off control built-into strobe illuminator for ease-of-operation.
- Soft-touch start-stop switch allowing precision control capability without the annoyance of accidental operation.
- Technics integral rotor/platter motor construction with full cycle detection F.G.

FEATURES

Total quartz locked continuous pitch adjustment $\pm 8\%$

Quartz-phase-locked control means almost perfect accuracy of turntable rotation. But with most quartz turntables, this accurate control circuit must be cut out when the pitch control is employed. With the SL-1200MK2, however, pitch is variable continuously (analogically) by up to $\pm 8\%$ under total quartz locked control. The pitch is controlled with a large sliding lever, located to the right of the turntable platter.

Four lines of platter markings are also provided indicating $+6\%$, $+3.3\%$, 0% (exact rated speed) and -3.3% change from rated speed.

Aluminum diecast cabinet and special heavy rubber base material provide acoustic isolation

The effects of external vibrations are dramatically reduced in the turntable by this new turntable construction. The turntable base is precision-made aluminum diecast. And the underside of the main base is made of a heavy rubber material (special one-piece molding) which has excellent vibration resistance and absorbing characteristics. The turntable platter is also vibration-damped with specially fabricated rubber matting in the underside along with the thick turntable sheet (rubber mat). Four large-size insulating feet also help to absorb unwanted vibrations.

These features make SL-1200MK2 ideal for use with extra-high sound pressure levels.

High torque for fast starts

The integral rotor/platter motor delivers 1.5kg-cm (1.3lb-in) starting torque. This high torque gives very quick starts enabling the platter to reach 33-1/3 rpm within 0.7 s. (a quarter of a turn). This is a big advantage in many professional applications where fast cueing is a necessity.

Stylus illuminator for low-light conditions

You'll appreciate the stylus illuminator when you are using the turntable under low-light conditions. The illuminator can be hidden in the turntable base, should you need it, simply push a button and it will pop up gently and cast a beam of light across the disc in the area traversed by the tonearm.

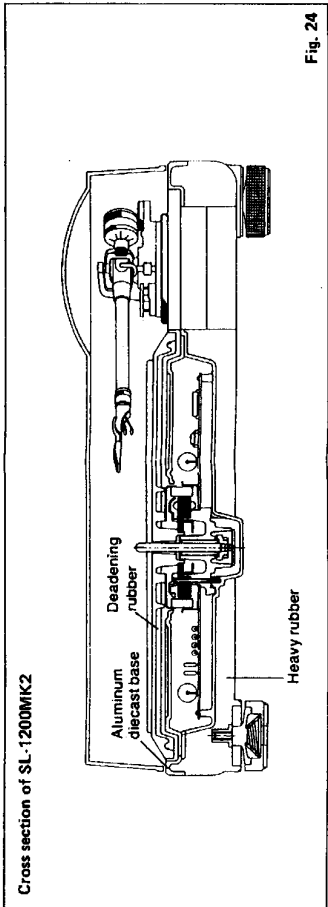


Fig. 24

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