

# Service Manual

Turntable System

## SL-1200MK2

[M], [MC],

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

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

## SL-1210MK2

[E], [EG], [EH]

Supplement



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

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

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

English

## Specifications

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

### ■ General

|                                   |                                                                                              |
|-----------------------------------|----------------------------------------------------------------------------------------------|
| <b>Power supply:</b>              | 120V, AC 60 Hz (For [M], [MC] areas)<br>~ 110-120/220-240V, 50 or 60 Hz<br>(For other areas) |
| <b>Power consumption:</b>         | 14 W (For [M], [MC] areas)<br>13.5 W (For other areas)                                       |
| <b>Dimensions:</b><br>(W x H x D) | 45.3 x 16.2 x 36 cm<br>(17-27/32" x 6-19/64" x 14-11/64")                                    |
| <b>Weight:</b>                    | 12.5 kg (27.6 lb)                                                                            |

### Turntable section

|                      |                                         |
|----------------------|-----------------------------------------|
| <b>Type:</b>         | Quartz direct drive<br>Manual turntable |
| <b>Drive method:</b> | Direct drive                            |
| <b>Motor:</b>        | Brushless DC motor                      |

|                                  |                                                                            |
|----------------------------------|----------------------------------------------------------------------------|
| <b>Turntable platter:</b>        | Aluminum diecast<br>Diameter 33.2 cm (13-5/64")<br>Weight 2 kg (4.4 lb)    |
| <b>Turntable speeds:</b>         | 33-1/3 rpm and 45 rpm                                                      |
| <b>Starting torque:</b>          | 1.5 kg · cm (1.3 lb · in)                                                  |
| <b>Build-up characteristics:</b> | 0.7 s. from standstill to 33-1/3 rpm                                       |
| <b>Braking system:</b>           | Electronic brake                                                           |
| <b>Wow and flutter:</b>          | 0.01% WRMS*<br>0.025% WRMS (JIS C5521)<br>± 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.

|                |                                                          |
|----------------|----------------------------------------------------------|
| <b>Rumble:</b> | -56 dB (IEC 98A Unweighted)<br>-78 dB (IEC 98A Weighted) |
|----------------|----------------------------------------------------------|

Matsushita Engineering and Service Company  
50 Meadowland Parkway,  
Secaucus, New Jersey 07094

Panasonic Hawaii Inc.  
91-238 Kauhū St. Ewa Beach  
P.O. Box 774  
Honolulu, Hawaii 96808-0774

Panasonic Sales Company,  
Division of Matsushita Electric of Puerto Rico, Inc.  
Ave. 65 De Infanteria, KM 9.7  
Victoria Industrial Park  
Carolina, Puerto Rico 00630

Matsushita Electric of Canada Limited  
5770 Ambler Drive, Mississauga,  
Ontario, L4W 2T3

# Technics

Panasonic Tokyo  
Matsushita Electric Industrial Co., Ltd.  
1-2, 1-chome, Shibakoen, Minato-ku, Tokyo 105 Japan

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

# SL-1200MK2/1210MK2

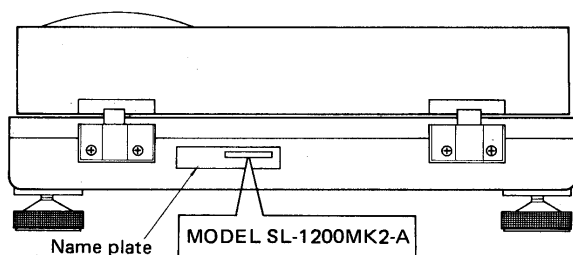
## ■ Tonearm section

|                              |                                                                                                                    |
|------------------------------|--------------------------------------------------------------------------------------------------------------------|
| 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<br>Within 0°32' (at the inner groove of 30 cm (12") record |

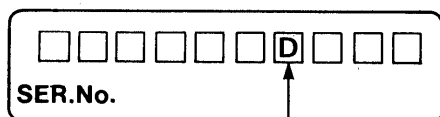
|                                    |                                                 |
|------------------------------------|-------------------------------------------------|
| Stylus pressure adjustment range:  | 0 — 2.5 g                                       |
| Applicable cartridge weight range: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

## Notes

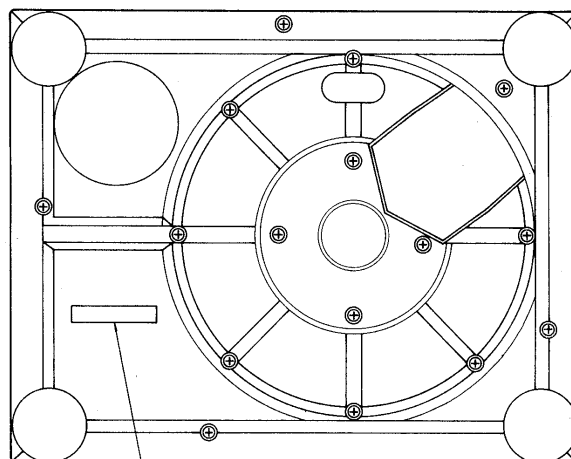
- ★ To improve the performance of SL-1200MK2/1210MK2, the bottom structure and circuit are changed in the course of production.
- ★ After the change, SL1200MK2—A/1210MK2—A is indicated in the name plate as the model of the set. It is discriminated from before-change set by —A. Also, check that the present change is of the sets after the change mark **D** 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 **E**, 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<br>Durchmesser 33,2 cm<br>Gewicht 2 kg |

|                           |                                                                              |
|---------------------------|------------------------------------------------------------------------------|
| Plattenteller-Drehzahlen: | 33-1/3 und 45 U/min                                                          |
| Anlaufdrehschwindigkeit:  | 1,5 kg · cm                                                                  |
| Drehzahl-Hochlaufzeit:    | 0,7 s. vom Stillstand auf 33-1/3 U/min                                       |
| Bremssystem:              | Elektronische Bremse                                                         |
| Gleichlaufschwankungen:   | 0,01% WRMS*<br>0,025% WRMS (JIS C5521)<br>± 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)<br>—78 dB (IEC 98A bewertet) |
|----------------------------------|----------------------------------------------------------|

**■ Tonarm**

|                         |                                                                                                      |
|-------------------------|------------------------------------------------------------------------------------------------------|
| <b>Typ:</b>             | Universal-Tonarm                                                                                     |
| <b>Effektive Länge:</b> | 230 mm                                                                                               |
| <b>Tonarmhöhe-</b>      |                                                                                                      |
| <b>Einstellbereich:</b> | 0 – 6 mm                                                                                             |
| <b>Überhang:</b>        | 15 mm                                                                                                |
| <b>Effektive Masse:</b> | 12 g (ohne Tonabnehmer)                                                                              |
| <b>Spurfehlwinkel:</b>  | 2°32' bei der Einlaufrille einer<br>30 cm-Platte<br>0°32' bei der Auslaufrille einer<br>30 cm-Platte |
| <b>Kröpfungswinkel:</b> | 22°                                                                                                  |
| <b>Lagerreibung:</b>    | Weniger als 7 mg (horizontal, vertikal)                                                              |

|                                |                                                       |
|--------------------------------|-------------------------------------------------------|
| <b>Auflagekraft-</b>           |                                                       |
| <b>Einstellbereich:</b>        | 0 – 2,5 g                                             |
| <b>Zulässiger Tonabnehmer-</b> |                                                       |
| <b>Gewichtsbereich:</b>        | 6 – 10 g<br>13,5 – 17 g (einschließlich Tonarmkopf)   |
| <b>(mit Zusatz-</b>            |                                                       |
| <b>Gegengewicht):</b>          | 9,5 – 13 g<br>17 – 20,5 g (einschließlich Tonarmkopf) |
| <b>Gewichtsbereich:</b>        | 3,5 – 6,5 g                                           |
| <b>(mit Zusatzgewicht)</b>     | 11 – 14 g (einschließlich Tonarmkopf)                 |
| <b>Tonarmkopf-Gewicht:</b>     | 7,5 g                                                 |

Français

**CARACTERISTIQUES**

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

**■ Généralités**

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

**■ Platine de lecture**

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

|                    |                                                          |
|--------------------|----------------------------------------------------------|
| <b>Ronflement:</b> | –56 dB (IEC 98A Non pondéré)<br>–78 dB (IEC 98A Pondéré) |
|--------------------|----------------------------------------------------------|

**■ Bras de lecture**

|                                 |                                                                                                                                     |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>Type:</b>                    | Bras de lecture universel                                                                                                           |
| <b>Longueur effective:</b>      | 230 mm                                                                                                                              |
| <b>Portée du réglage de la</b>  |                                                                                                                                     |
| <b>hauteur de bras:</b>         | 0 – 6 mm                                                                                                                            |
| <b>Porte-à-faux:</b>            | 15 mm                                                                                                                               |
| <b>Masse réelle:</b>            | 12 g (sans la cellule pick-up)                                                                                                      |
| <b>Angle d'erreur de piste:</b> | En deçà de 2°32' au sillon extérieur<br>d'un disque de 30 cm<br>En deçà de 0°32' au sillon intérieur<br>d'un disque de 30 cm<br>22° |
| <b>Angle de décalage:</b>       | 22°                                                                                                                                 |
| <b>Frottement:</b>              | Moins de 7 mg (latéral et vertical)                                                                                                 |
| <b>Plage de réglage de la</b>   |                                                                                                                                     |
| <b>pression d'appui:</b>        | 0 – 2,5 g                                                                                                                           |
| <b>Gamme du poids de la</b>     |                                                                                                                                     |
| <b>cellule pick-up</b>          |                                                                                                                                     |
| <b>utilisable:</b>              | 6 – 10 g<br>13,5 – 17,5 g<br>(y compris la coque porte-cellule)                                                                     |
| <b>(avec contrepoids</b>        |                                                                                                                                     |
| <b>auxiliaire):</b>             | 9,5 – 13 g<br>17 – 20,5 g<br>(y compris la coque porte-cellule)                                                                     |
| <b>(avec contrepoids de</b>     |                                                                                                                                     |
| <b>la cellule):</b>             | 3,5 – 6,5 g<br>11 – 14 g<br>(y compris la coque porte-cellule)                                                                      |
| <b>Poids de la cellule:</b>     | 7,5 g                                                                                                                               |

## ESPECIFICACIONES

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

### ■ En general

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

### ■ Sección del plato giratorio

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

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

### ■ Sección del brazo sonoro

|                                                   |                                                                                                                          |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Tipo:</b>                                      | Brazo sonoro universal                                                                                                   |
| <b>Longitud efectiva:</b>                         | 230 mm                                                                                                                   |
| <b>Radio de ajuste de altura del brazo:</b>       | 0 — 6 mm                                                                                                                 |
| <b>Parte saliente:</b>                            | 15 mm                                                                                                                    |
| <b>Masa efectiva:</b>                             | 12 g. (sin cartucho)                                                                                                     |
| <b>Angulo de descentramiento:</b>                 | 22°                                                                                                                      |
| <b>Fricción:</b>                                  | Menos de 7 mg.<br>(en sentido lateral y vertical)                                                                        |
| <b>Angulo de error de seguimiento:</b>            | Inferior a 2°32' en el surco exterior de un disco de 30 cm<br>Inferior a 0°32' en el surco interior de un disco de 30 cm |
| <b>Radio de ajuste de la presión de la aguja:</b> | 0 a 2,5 g.                                                                                                               |
| <b>Radio de peso de cartucho utilizable:</b>      | 6 a 10 g.<br>13,5 a 17,5 g.<br>(incluyendo la cápsula de la cabeza)                                                      |
| <b>(con contrapeso de balance de reserva):</b>    | 9,5 a 13 g.<br>17 a 20,5 g.<br>(incluyendo la cápsula de la cabeza)                                                      |
| <b>(con contrapeso de la cápsula):</b>            | 3,5 a 6,5 g.<br>11 a 14 g.<br>(incluyendo la cápsula de la cabeza)                                                       |
| <b>Peso de la cápsula de la cabeza:</b>           | 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.

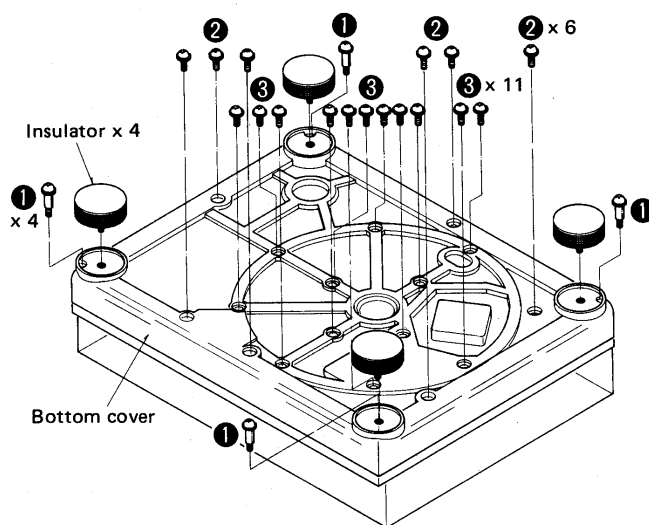
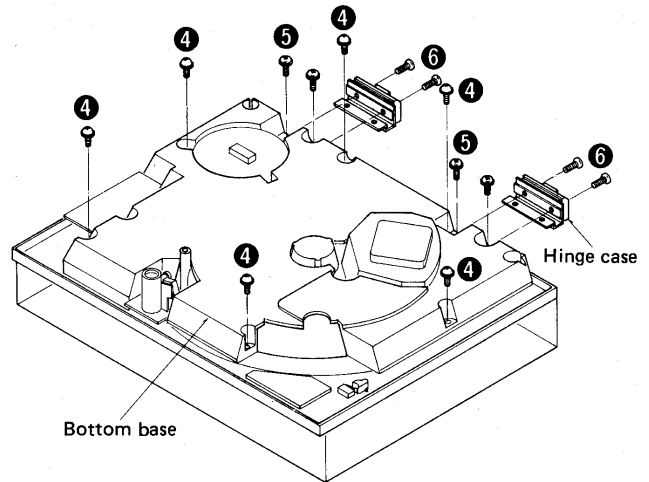


Fig. 1

● **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. ①-marked parts are used only for SL-1210MK2 (black type). And ○-marked parts are used for SL1200MK2 (silver type).
3. Parts other than ①- and ○-marked are used for both SL-1210MK2 and SL-1200MK2.
4. The "⑤" 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<br>(Pcs.) | Remarks |
|--------------------|-------------------------------|--------------------------------------|-----------------------------------|-------------------|---------|
|                    | SL-1200MK2<br>(Before Change) | SL-1200MK2/1210MK2<br>(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                    | SVDPR3902S—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                 | △       |

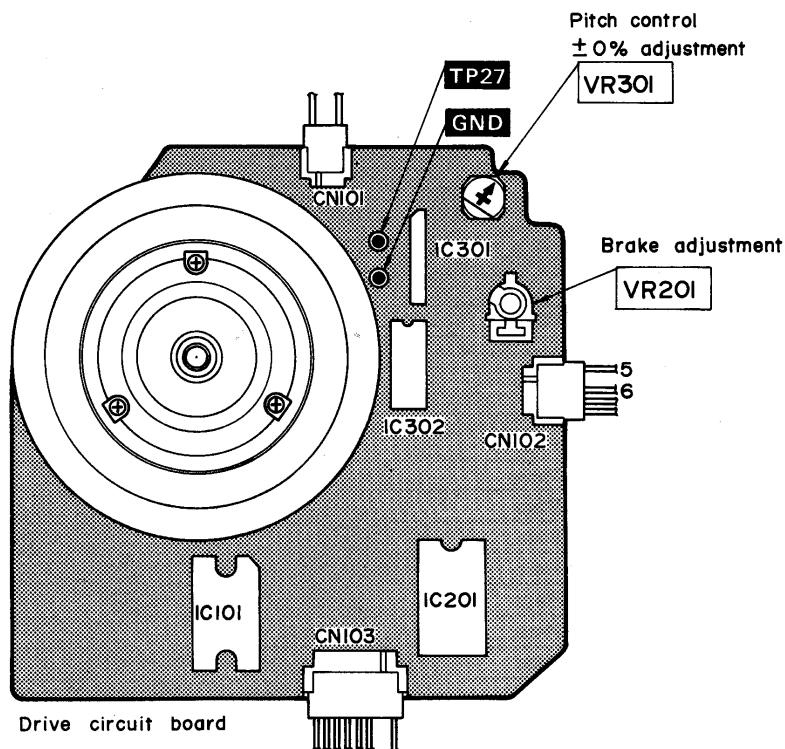
# SL-1200MK2/1210MK2

| Ref. No.                  | Change of Part No.            |                                      | Part Name & Description   | Per Set (Pcs.) | Remarks |
|---------------------------|-------------------------------|--------------------------------------|---------------------------|----------------|---------|
|                           | SL-1200MK2<br>(Before Change) | SL-1200MK2/1210MK2<br>(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              | ⚠ Ⓢ     |
| CAPACITORS                |                               |                                      |                           |                |         |
| C5, 6                     | Addition                      | ECQM1223KZ                           | Polyester, 125V, 0.022μF  | 1              | ⚠       |
| 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                        | SFQA001-02                    | SFQA122-03                           | 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              |         |

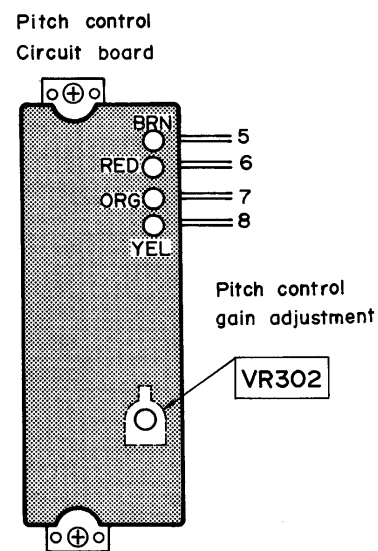
**SL-1200MK2/1210MK2**

| Ref. No.             | Change of Part No.            |                                      | Part Name & Description        | Per Set (Pcs.) | Remarks |
|----------------------|-------------------------------|--------------------------------------|--------------------------------|----------------|---------|
|                      | SL-1200MK2<br>(Before Change) | SL-1200MK2/1210MK2<br>(After Change) |                                |                |         |
| <b>TONARM PARTS</b>  |                               |                                      |                                |                |         |
| 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              | Ⓚ       |
| <b>ACCESSORIES</b>   |                               |                                      |                                |                |         |
| 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              |         |
| <b>PACKING PARTS</b> |                               |                                      |                                |                |         |
| 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<br>(+) – TP27<br>(–) – Earth point       | VR301<br>(Fig. 3) | <ol style="list-style-type: none"> <li>1. Connect the frequency counter and turn the power supply ON.</li> <li>2. Set the pitch control knob to "0". (Indicator lights up.)</li> <li>3. Adjust VR301 so that the frequency is <math>262.08 \text{ kHz} \pm 0.05 \text{ kHz}</math>.</li> </ol>                                                                                             |
| 2 | Pitch control gain adjustment      | Tester<br>(+) – CN102 terminal ⑤<br>(–) – CN102 terminal ⑥ | VR302<br>(Fig. 4) | <ol style="list-style-type: none"> <li>1. Set the pitch control knob to "0".</li> <li>2. Pull out the connector CN102 of drive P.C.B.</li> <li>3. Connect the tester to terminals ⑤ and ⑥ of connector CN102 on the pitch control P.C.B. side.</li> <li>4. Adjust VR302 so that the resistance value of the tester is <math>2.7 \text{ k}\Omega \pm 0.1 \text{ k}\Omega</math>.</li> </ol> |
| 3 | Brake adjustment                   | _____                                                      | VR201<br>(Fig. 3) | <ol style="list-style-type: none"> <li>1. Adjust VR201 so that the rotation at 33 r.p.m. stops within the angle of <math>90^\circ \sim 120^\circ</math> after depressing the stop button.</li> </ol>                                                                                                                                                                                       |

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

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

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

## 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  $\Delta$  mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
  - The "S" 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  $\Omega$  (ohm).  
K = 1000 $\Omega$ , M = 1000k $\Omega$
  - The unit capacitance is  $\mu$ F (microfarad).  
P = 10<sup>-6</sup>  $\mu$ 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 |

| 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   |               |

### Numbering System of Capacitor

Example

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

| 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 : $+80\%, -20\%$ |
| 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  |
|------------------|--------------|-------|------------------|-----------------------|-------|-------------------|---------------|--------|------------------------------------------------------------------------|---------------|--------|
| <b>RESISTORS</b> |              |       | <b>RESISTORS</b> |                       |       | <b>CAPACITORS</b> |               |        | <b>CAPACITORS</b>                                                      |               |        |
| R1               | ⑤ ERD25FJ562 | 5.6K  | R210             | ⑤ ERD25TJ183          | 18K   | C1                | ECEB1HU471    | 470    | C210                                                                   | ⑤ ECQM1H224JZ | 0.22   |
| R2               | ⑤ ERD25FJ682 | 6.8K  | R211             | ⑤ ERD25FJ472          | 4.7K  | C2                | ECEA1EU330    | 33     | C211                                                                   | ⑤ ECQM1H473JZ | 0.047  |
| R3               | ⑤ ERD25FJ272 | 2.7K  | R212             | ⑤ ERD25FJ151          | 150   | C3                | ECEA1EU220    | 22     | C212                                                                   | ⑤ ECEA1HU3R3  | 3.3    |
| R4,5             | ⑤ ERD25FJ471 | 470   | R213             | ⑤ ERD25FJ122          | 1.2K  | C5,6              | ECQM1223KZ    | 0.022  | C213                                                                   | ⑤ ECCD1H471K  | 470P   |
| R101             | ⑤ ERD25FJ103 | 10K   | R214             | ⑤ ERD25TJ223          | 22K   | C101,102          | ECEA1EU330    | 33     | C214                                                                   | ECEA1CU101    | 100    |
| R102             | ⑤ ERX1ANJ4R7 | 4.7   | R215             | ⑤ ERD25FJ472          | 4.7K  | C103              | ECEA1EU330    | 33     | C215                                                                   | ECEA1HU010    | 1      |
| R103             | ⑤ ERD25FJ472 | 4.7K  | R216             | ⑤ ERD25TJ154          | 150K  | C104,105          | ⑤ ECQM1H104JZ | 0.1    | C216                                                                   | ECEA1CU470    | 47     |
| R104             | ⑤ ERD25TJ473 | 47K   | R217             | ⑤ ERD25TJ223          | 22K   | C106,107          | ⑤ ECQM1H104JZ | 0.1    | C217,218                                                               | ECKD1H104ZF   | 0.1    |
| R105             | ⑤ ERD25FJ103 | 10K   | R218             | ⑤ ERD25FJ102          | 1K    | C108              | ECEA1EU101    | 100    | C219                                                                   | ECKD1H104ZF   | 0.1    |
| R106             | ⑤ ERD25FJ150 | 15    | R219             | ⑤ ERD25FJ332          | 3.3K  | C109,110          | ⑤ ECQM1H104JZ | 0.1    | C301                                                                   | ECQK1333GZ    | 0.033  |
| R107             | ⑤ ERX1ANJ1R5 | 1.5   | R220             | ⑤ ERD25FJ221          | 220   | C111              | ⑤ ECQM1H562JZ | 0.0056 | C302                                                                   | ECQK1682GZ    | 0.0068 |
| R108             | ⑤ ERD25FJ103 | 10K   | R221             | ⑤ ERD25FJ471          | 470   | C112              | ECEA1HU4R7    | 4.7    | C303                                                                   | ECEA1HU010    | 1      |
| R109,110         | ⑤ ERX1ANJ4R7 | 4.7   | R222             | ⑤ ERD25FJ391          | 390   | C201              | ECEA1CU330    | 33     | C304                                                                   | ECEA1CU100    | 10     |
| R201             | ⑤ ERG1ANJ561 | 560   | R301             | ⑤ ER025CKF2701        | 2.7K  | C202,203          | ECEA1HU010    | 1      | C305                                                                   | ⑤ ECQM1H122JZ | 0.0012 |
| R202             | ⑤ ERD25FJ103 | 10K   | R302             | ⑤ ERD25FJ471          | 470   | C204              | ⑤ ECQM1H473JZ | 0.047  | C306                                                                   | ECEA1HU010    | 1      |
| R203             | ⑤ ERD25FJ470 | 47    | R303             | ⑤ ERD25FJ822          | 8.2K  | C205              | ECEA0JU221    | 220    | C601 [M] $\Delta$<br>C601 [MC] $\Delta$<br>C601 [Other areas] $\Delta$ | ECQF1A473MD   | 0.047  |
| R204             | ⑤ ERD25FJ272 | 2.7K  | R304             | ⑤ ERD25FJ561          | 560   | C206              | ECEA1HU010    | 1      |                                                                        | ECQU1A47ME    | 0.047  |
| R205             | ⑤ ERD25TJ124 | 120K  | R305             | ⑤ ERD25FJ181          | 180   | C207              | ⑤ ECCD1H101K  | 100P   |                                                                        | ECNC4A473M    | 0.047  |
| R206             | ⑤ ERD25TJ183 | 18K   | R306             | ⑤ ERD25TJ223          | 22K   | C208              | ⑤ ECCD1H220K  | 22P    |                                                                        |               |        |
| R207             | ⑤ ERD25TJ563 | 56K   | R307             | ⑤ ERD25FJ272          | 2.7K  | C209              | ECEA1CU101    | 100    |                                                                        |               |        |
| R208             | ⑤ ERD25TJ224 | 220K  | R401             | $\Delta$ ⑤ ERD50FJ152 | 1.5K  |                   |               |        |                                                                        |               |        |
| R209             | ⑤ ERD25TJ334 | 330K  | R601             | $\Delta$ ⑤ ERD50FJ4R7 | 4.7   |                   |               |        |                                                                        |               |        |

## REPLACEMENT PARTS LIST

- Notes:**
1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
  2. Important safety notice:  
Components identified by  $\Delta$  mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
  3. Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.
  4. The "S" mark is service standard parts and may differ from production parts.
  5. The parenthesized numbers in the column of description stand for the quantity per set.
  6. (K)-marked parts are used only for SL-1210MK2 (black type). And O-marked parts are used for SL-1200MK2 (silver type).
  7. Parts other than (K)- and O-marked are used for both SL-1210MK2 and SL-1200MK2.

### Areas

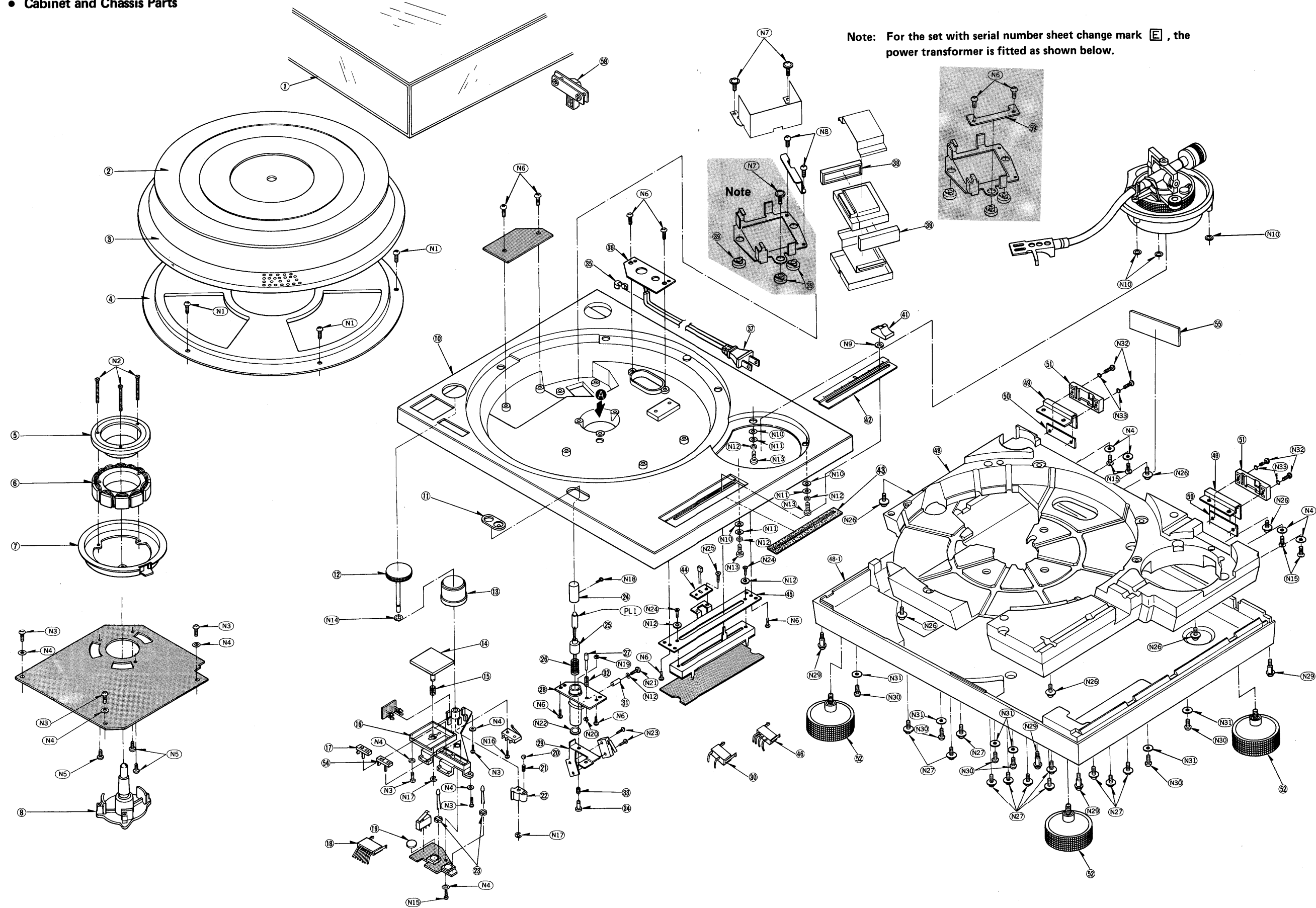
- \* [M] is available in the U.S.A.
- \* [MC] is available in Canada.
- \* [E] is available in Switzerland and Scandinavia.
- \* [EK] is available in United Kingdom.
- \* [XL] is available in Australia.
- \* [EG] is available in F.R. Germany.
- \* [EB] is available in Belgium.
- \* [EH] is available 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        |
|----------------------------|----------------------|-------------------|---------------------------|-----------------------|---------------------------------------------------|----------------------|----------------------|--------------------|
| <b>INTEGRATED CIRCUITS</b> |                      |                   | <b>CRYSTAL</b>            |                       |                                                   | <b>LAMP</b>          |                      |                    |
| IC101                      | AN6675               | Turntable Drive   | X201                      | SVQMS4193             | 4.193MHz Oscillator                               | PL1                  | $\Delta$ SFDN122-01  | Stylus Illuminator |
| IC201                      | AN6680               | Turntable Control | <b>VARIABLE RESISTORS</b> |                       |                                                   | <b>TRANSFORMER</b>   |                      |                    |
| IC301                      | AN6682               | Pitch Control     | VR201                     | (S) EVTS3MA00B54      | Brake Adjustment,50k $\Omega$ (B)                 | T1(M)                | $\Delta$ SLT66DTL3A  | Power Source       |
| IC302                      | MN4011B              | NAND Gate         | VR301                     | EVMH1GA00B23          | Pitch Control $\pm$ 0% Adjustment,2k $\Omega$ (B) | T1(MC)               | $\Delta$ SLT66DT14C  | Power Source       |
| <b>TRANSISTORS</b>         |                      |                   | VR302                     | (S) EVTS3MA00B54      | Pitch Control Gain Adjustment,50k $\Omega$ (B)    | T1(Other areas)      | $\Delta$ SLT66DTE13E | Power Source       |
| Q1                         | 2SD1265              | Regulator         | VR303                     | SFDZ122N11            | Pitch Control                                     | <b>FUSES</b>         |                      |                    |
| Q2,3                       | 2SD637               | Regulator         | <b>SWITCHES</b>           |                       |                                                   | F1(MC)               | $\Delta$ XBA1F12NU14 | 125V,1.2A          |
| Q201                       | (S) 2SC1846-R        | Regulator         | S201,202                  | EVQP5R04K             | Speed Selector                                    | F1 Except for (M,MC) | $\Delta$ XBA2C025T1A | 250V,T250mA        |
| Q202                       | 2SD637               | LED Driver        | S203                      | SFDSSS01GL13          | Start/Stop                                        | F2 Except for (M,MC) | $\Delta$ XBA2C10TR0  | 250V,T1A           |
| Q203                       | (S) 2SC1328-T        | FG Amp.           | S401                      | SFDSD2MSL-C           | Stylus-Illuminator                                |                      |                      |                    |
| <b>DIODES</b>              |                      |                   | S601                      | $\Delta$ SFDSSS5GL13P | Power                                             |                      |                      |                    |
| D1                         | $\Delta$ SVDS1RBA20Z | Rectifier         | S602 Except for (M,MC)    | $\Delta$ 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   |                           |                       |                                                   |                      |                      |                    |

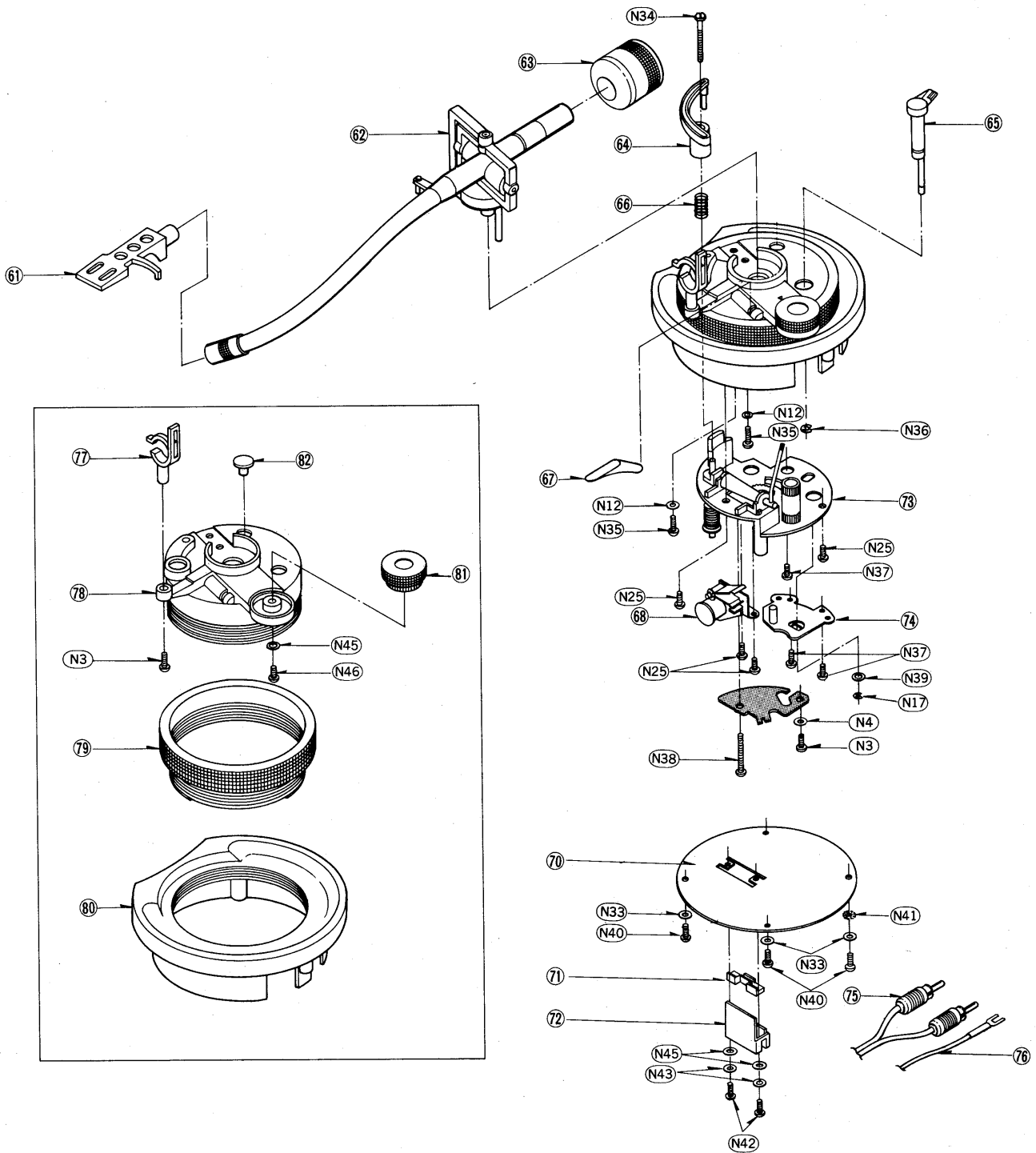
# SL-1200MK2/1210MK2

| Ref. No.                          | Part No.     | Description                          | Ref. No.                      | Part No.      | Description                  | Ref. No.             | Part No.     | Description                            |
|-----------------------------------|--------------|--------------------------------------|-------------------------------|---------------|------------------------------|----------------------|--------------|----------------------------------------|
| <b>CHABINET AND CHASSIS PARTS</b> |              |                                      | <b>TONEARM PARTS</b>          |               |                              | <b>ACCESSORIES</b>   |              |                                        |
| 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) (1)                  | 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)                    |               |                              | N43                  | Ⓢ XWG3FZ     | Washer (2)                             |
| 14                                | SFKT015-06   | Button, Start/Stop (1)               | 58                            | SFATM02N01A   | Hinge (2)                    | N44                  | Ⓢ SFXW701-02 | Washer (1)                             |
| 15                                | SFQA122-01   | Spring, Start/Stop Button (1)        | 59                            | SFUP122-25    | Plate, Power transformer (1) | N45                  | Ⓢ SFPEW00705 | Washer (4)                             |
| 16                                | SFUM122-01   | Base, Operation (1)                  | <b>SCREW, NUT AND WASHERS</b> |               |                              | N46                  | Ⓢ XTW26+5E   | Screw (1)                              |
| 17                                | SFKT015-01E  | Button, Speed (3) (1)                | 61                            | SFPCC31001K   | Headshell (1)                | A1(M)                | SFNU122M06   | Instruction Book (1)                   |
| 18                                | SFDJ122-02E  | Connector, 7pin (1)                  | 62                            | ○ SFPAM18201K | Tonearm Ass'y (Silver) (1)   | A1(MC)               | SFNU122C06   | Instruction Book (1)                   |
| 19                                | SFGZ122-01   | Spacer, Rubber (1)                   | 62                            | Ⓢ SEPAM18202K | Tonearm Ass'y (Black) (1)    | A1(E,EB,EC)          | SFNU122S01   | Instruction Book (1)                   |
| 20                                | SFYB-5-32    | Ball, Switch Cam (1)                 | 63                            | SFPWG17201K   | Balance Weight (1)           | A1(EK)               | SFNU122G01   | Instruction Book (1)                   |
| 21                                | SFQA520-01   | Spring, Switch Cam (1)               | 64                            | SFPRT18201K   | Lift Ass'y (1)               | A1(PA, PE,PC)        | SFNU122P01   | Instruction Book (1)                   |
| 22                                | SFUM122-03   | Cam, Power Switch (1)                | 65                            | SFPZB17202    | Knob, Arm Base Lock (1)      | A1(Other areas)      | SFNU122X01   | Instruction Book (1)                   |
| 23                                | SFUM015-11   | Spacer, Speed Indicator (2)          | 66                            | SFQA829-03    | Spring, Lift Ass'y (1)       | A2                   | SFWE010      | 45 Adaptor (1)                         |
| 24                                | SFKK172-01   | Cover, Stylus Illuminator (1)        | 67                            | SFPAB13202    | Knob, Arm Lift (1)           | A3                   | SFPEN3302    | Nut, Cartridge (2)                     |
| 25                                | SFXB122-06   | Boss, Drive (1)                      | 68                            | SFPJL18202K   | Oil Damper (1)               | A4                   | SFPEW9601    | Washer, Cartridge (2)                  |
| 26                                | SFQA172-01   | Spring, Drive Boss (1)               | 70                            | SFPZB12203    | Plate, Arm Base Cover (1)    | A5                   | SFCZV8801    | Screw, Cartridge (2)                   |
| 27                                | SFXJ172-01   | Pin, Lock Canceler (1)               | 71                            | SFUM170-06    | Spacer, Phono Cord (1)       | A6                   | SFPEV9801    | Screw, Cartridge (2)                   |
| 28                                | SFUP122-02E  | Bracket, Stylus Illuminator (1)      | 72                            | SFPZB12204    | Clamper, Phono Cord (1)      | A7                   | SFK0135-01   | Overhang Gauge (1)                     |
| 29                                | SFUP122-03   | Plate, Lock Operation (1)            | 73                            | SFPAB18201K   | Tonearm Fixing Plate (1)     | A8                   | SFPZB3501    | Shell Weight (1)                       |
| 30                                | SFDJ122-03E  | Connector, 3pin (1)                  | 74                            | SFPZB12201K   | Plate (1)                    | A9                   | SFDK119118   | 2pin Plug (1)                          |
| 31                                | SFX0172-01   | Pin, Guide (1)                       | 75                            | SFDH122-05    | Phono Cord (1)               | A9                   | △            |                                        |
| 32                                | SFQA520-01   | Spring, Lock Canceler (1)            | 76                            | SFEL028-01E   | Ground Wire (1)              | A10                  | △            |                                        |
| 33                                | SFQA122-02   | Spring, Lock Operation Plate (1)     | 77                            | SFPRT17201K   | Arm Rest (1)                 | A11                  | △            |                                        |
| 34                                | SFXJ172-05   | Pin, Lock Operation Plate (1)        | 78                            | ○ SFPKD17203  | Arm Base (Silver) (1)        | [XA] Only            | SFPWG17202   | Sub-weight (1)                         |
| 35(M,MC,PA PE,PC)                 | SFHK040L     | Clamper, AC Cord (1)                 | 78                            | Ⓢ SFPKD17205  | Arm Base (Black) (1)         | [PA,PE, PC] Only     | QJP0603S     | Adaptor, Gimens                        |
| 35(EK)                            | SFSR-5N-4    | Clamper, AC Cord (1)                 | 79                            | SFPKB17204E   | Ring, Arm Base Operation (1) | <b>PACKING PARTS</b> |              |                                        |
| 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                                | △ Ⓢ RJA9Y    | AC Cord (1)                          | 82                            | Ⓢ SFGK133S01  | Cap (Black) (1)              | P2                   | SFHH122-01   | Pad, Front (1)                         |
| 37(EK) △ Ⓢ                        | QFC1205M     | AC Cord (1)                          | <b>SCREW, NUT AND WASHERS</b> |               |                              | P3                   | SFHH122-02   | Pad, Rear (1)                          |
| 37(XL) △ Ⓢ                        | SJAG23       | AC Cord (1)                          | N1                            | Ⓢ XTN3+8BFZ   | Screw (5)                    | P4                   | SFHD122N05   | Pad, Top (1)                           |
| 37                                | △ Ⓢ SJA83    | AC Cord (1)                          | N2                            | Ⓢ SFXGQ20-02  | Screw (8)                    | P5                   | SFHD122-02   | Pad (A), Turntable (1)                 |
| [PA,PE,PC]                        | △ Ⓢ SJA88    | AC Cord (1)                          | N3                            | Ⓢ XTN3+8B     | Screw (8)                    | P6                   | SFHD122N06   | Pad (B), Turntable (1)                 |
| [Other areas]                     |              |                                      | N4                            | Ⓢ XWG3        | Washer (12)                  | P7                   | SFYH60X60    | Polyethylene Bag, Unit& Dust Cover (2) |
| 38                                | SFGC122-03   | Rubber, Power Transformer (2)        | N5                            | Ⓢ XTN26+6B    | Screw (3)                    | P8                   | SFYH40X45    | Polyethylene Bag, Turntable (1)        |
| 39                                | SFGC122-01   | Cushion, Power Transformer (3)       | N6                            | Ⓢ XTV3+8BFN   | Screw (8)                    | P9                   | SPB1083      | Polyethylene Bag, Accessories (3)      |
| 41                                | SFKT122-02   | Knob, Pitch Control (1)              | N7                            | Ⓢ SFXG172-01  | Screw (3)                    | P10                  | SPJ15        | Polyethylene Bag, Shell Weight (1)     |
| 42                                | ○ SFKK122-03 | Ornament (Silver), Pitch Control (1) | N8                            | Ⓢ XTN3+5J     | Screw (2)                    | P11                  | SFHZD03M01   | Cover Sheet, Dust Cover (1)            |
| 42                                | Ⓢ SFKK124S01 | Ornament (Black), Pitch Control (1)  | N9                            | Ⓢ SFXW172-03  | Washer (1)                   | P12                  | SFHZ122-01   | Cover Sheet, 45Adaptor (1)             |
| 43                                | SFUZ122-01   | Felt (1)                             | N10                           | Ⓢ SFPEW11003  | Washer (6)                   | P13                  | SPP189       | Cover Sheet, Cords (2)                 |
| 44                                | SFUP122-09   | Holder, LED (1)                      | N11                           | Ⓢ XWE3E10     | Washer (3)                   |                      |              |                                        |
| 45                                | SFUP122-01   | Bracket, Pitch Control (1)           | N12                           | Ⓢ XWA3B       | Washer (8)                   |                      |              |                                        |
| 46                                | SFDJ122-01E  | Connector, 4pin (1)                  | N13                           | Ⓢ XSN3+10S    | Screw (3)                    |                      |              |                                        |
| 48                                | SFAU122-03   | Bottom Base (1)                      | N14                           | Ⓢ SFXW910J02  | Washer (1)                   |                      |              |                                        |
| 48-1                              | SFAU122-02   | Bottom Cover (1)                     | N15                           | Ⓢ XTN3+10B    | Screw (5)                    |                      |              |                                        |
| 49                                | SFUP122-23   | Supporter (A), Hinge (2)             | N16                           | Ⓢ XTN2+10B    | Screw (1)                    |                      |              |                                        |
| 50                                | SFUP122-24   | Supporter (B), Hinge (2)             | N17                           | Ⓢ XUC3FT      | Circlip (2)                  |                      |              |                                        |
| 51                                | SFUMM02N04   | Case, Hinge (2)                      | N18                           | Ⓢ XSN17+3FY   | Screw (1)                    |                      |              |                                        |
|                                   |              |                                      | 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 (11)                   |                      |              |                                        |
|                                   |              |                                      | N29                           | Ⓢ SFXG122-01  | Screw (4)                    |                      |              |                                        |
|                                   |              |                                      | N30                           | Ⓢ XTN3+14QFZ  | Screw (6)                    |                      |              |                                        |

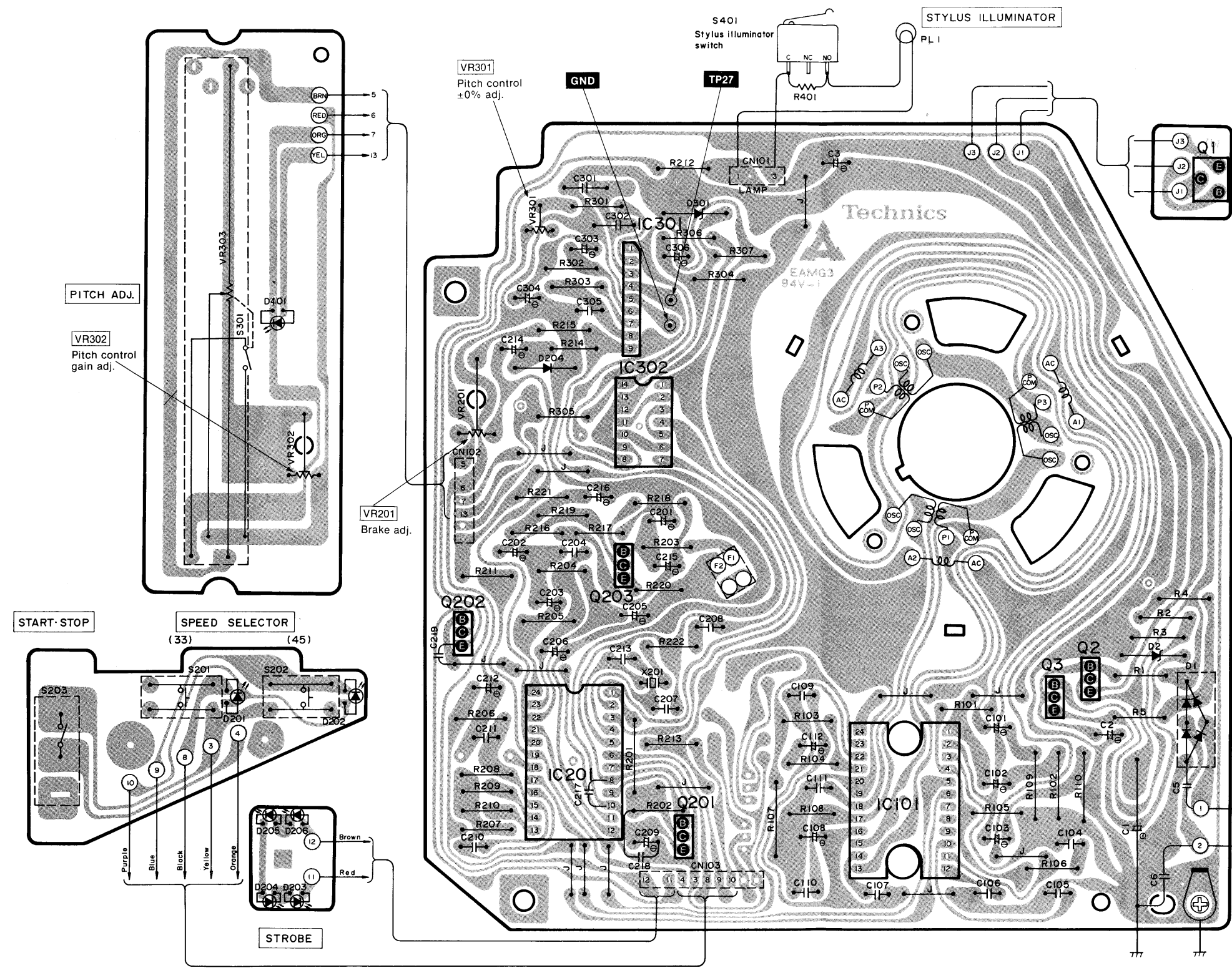
■ **EXPLODED VIEWS**  
● Cabinet and Chassis Parts



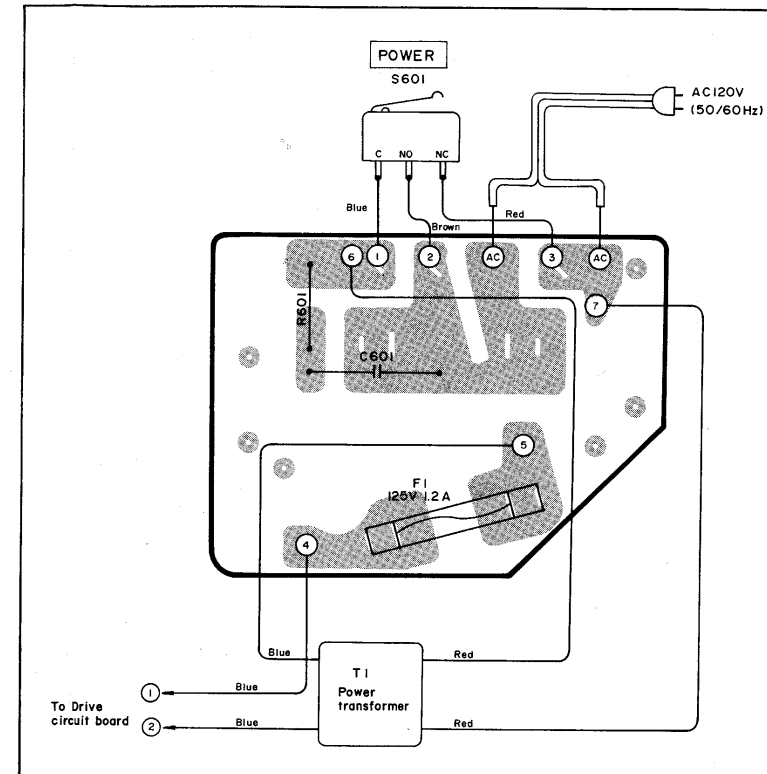
## • Tonearm Parts



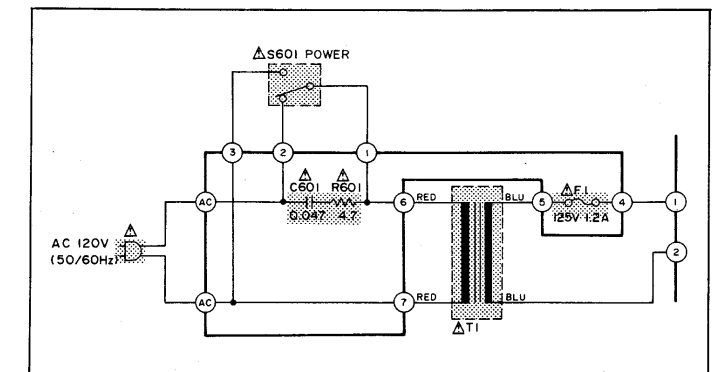
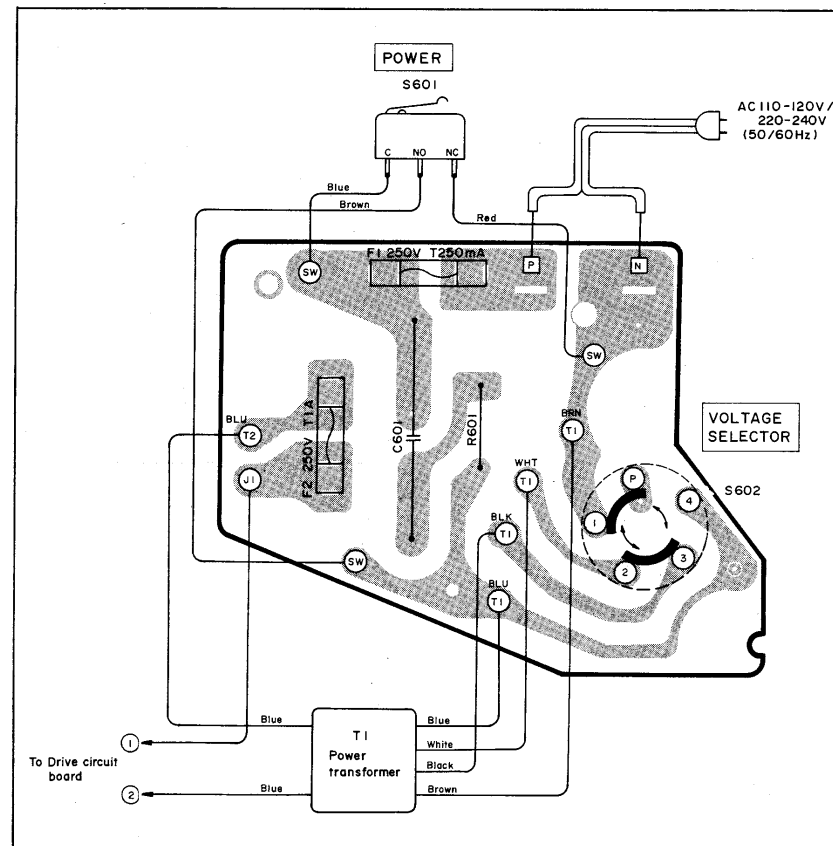
CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM



- Power source circuit
- \* Product for Canada



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



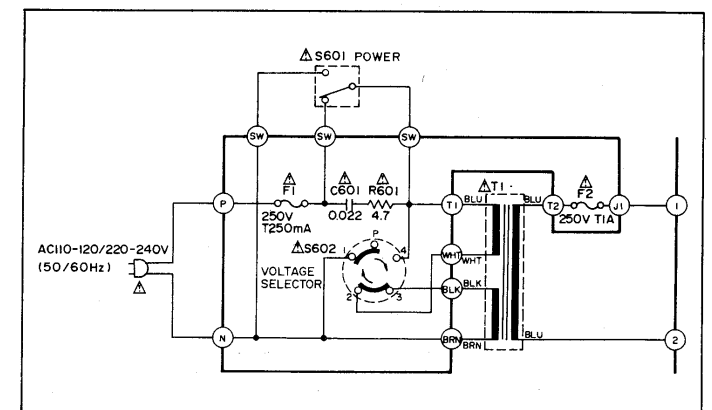
- Product for MC only

### 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, n'utiliser que des fusibles du même type. Se rapporter au symbole pour la valeur des fusibles.



# SCHEMATIC DIAGRAM

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

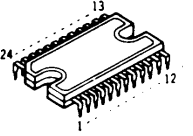
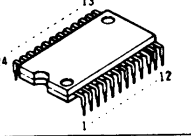
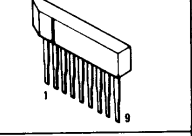
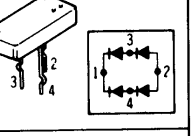
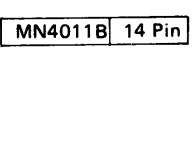
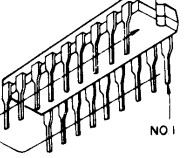
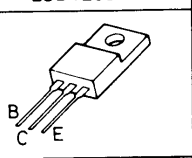
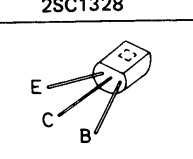
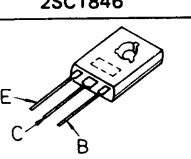
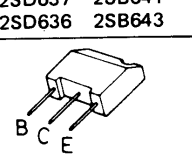
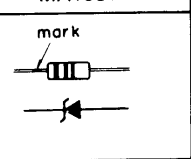
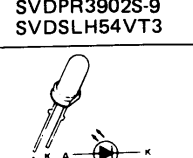
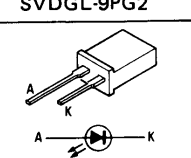
## Notes:

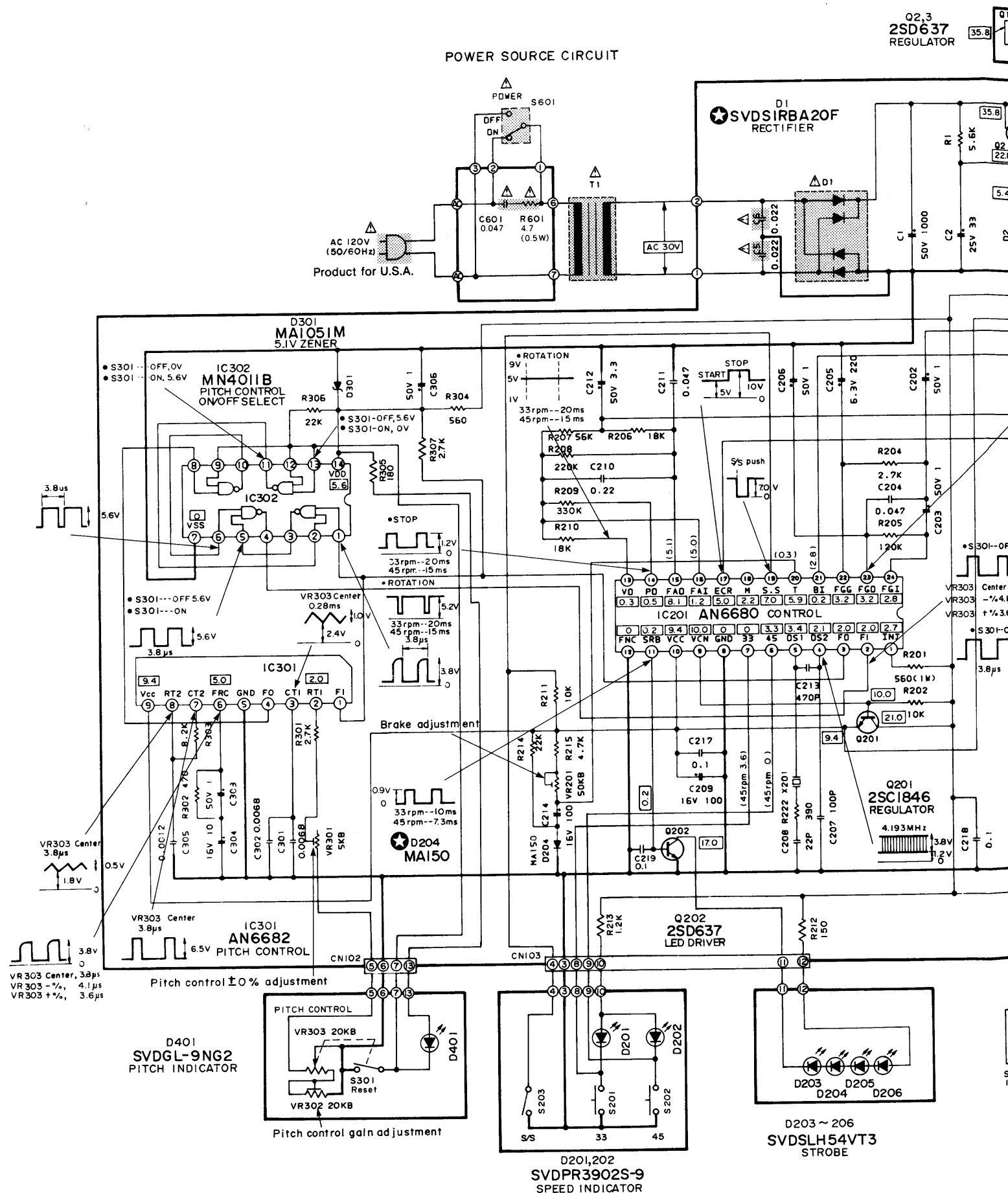
1. **S201, 202** : Speed selector switch.
2. **S203** : Start/stop switch.
3. **S301** : Pitch control reset switch in "off" position.
4. **S401** : Stylus illuminator switch in "off" position.
5. **S601** : Power switch in "on" position.
6. **S602** : Voltage selector in "220 - 240" position.
7. The 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.
  - \* ( ) is the voltage when turntable is in stop.
  - \* ( ) is the voltage when turntable is in rotation. (at 33 rpm)
8. ——— +B voltage lines.
9. Important safety notice.  
Components identified by  mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
10. The part No. of diodes mentioned in the schematic diagram stand for production part No. Regarding the part No. with  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 incorporates special features important for protection from fire and electrical shock hazards. When servicing it is essential that only manufacturer's specified parts be used for the critical components in the shaded areas of the schematic.

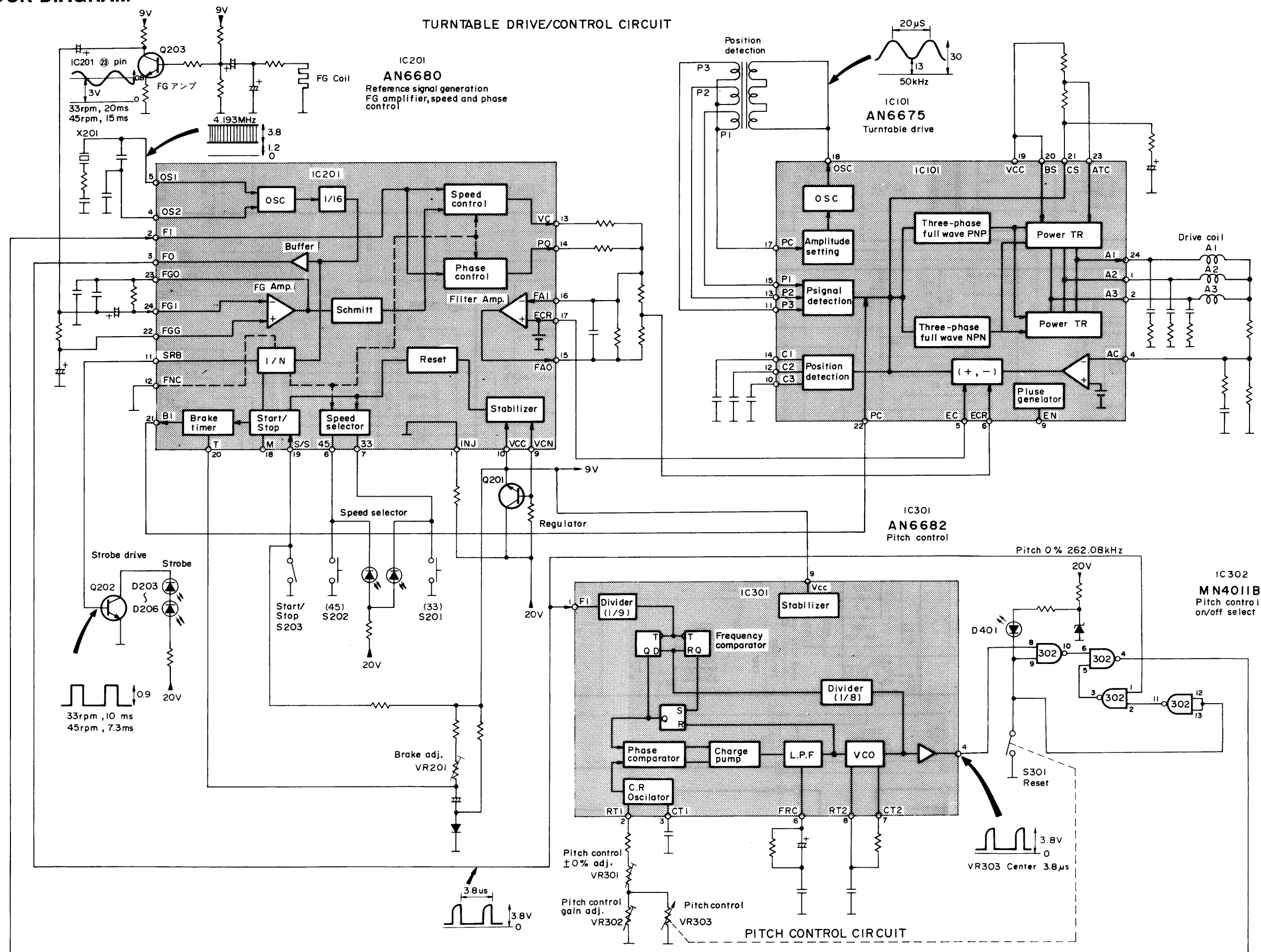
## Terminal guide of transistors, diodes and IC's

|                                                                                                                                  |                                                                                                          |                                                                                                                                     |                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>AN6675</b><br>                             | <b>AN6680</b><br>     | <b>AN6682</b><br>                                | <b>SVDS1RBA20F</b><br> |
| <b>MN4011B</b> 14 Pin<br>                     | <b>2SD1265</b><br>    | <b>MA150</b><br>                                 |                                                                                                            |
| <b>2SC1328</b><br>                            | <b>2SC1846</b><br>    | <b>2SD637 2SB641</b><br><b>2SD636 2SB643</b><br> | <b>MA1051</b><br>      |
| <b>SVDPR3902S-9</b><br><b>SVDSLH54VT3</b><br> | <b>SVDGL-9PG2</b><br> |                                                                                                                                     |                                                                                                            |

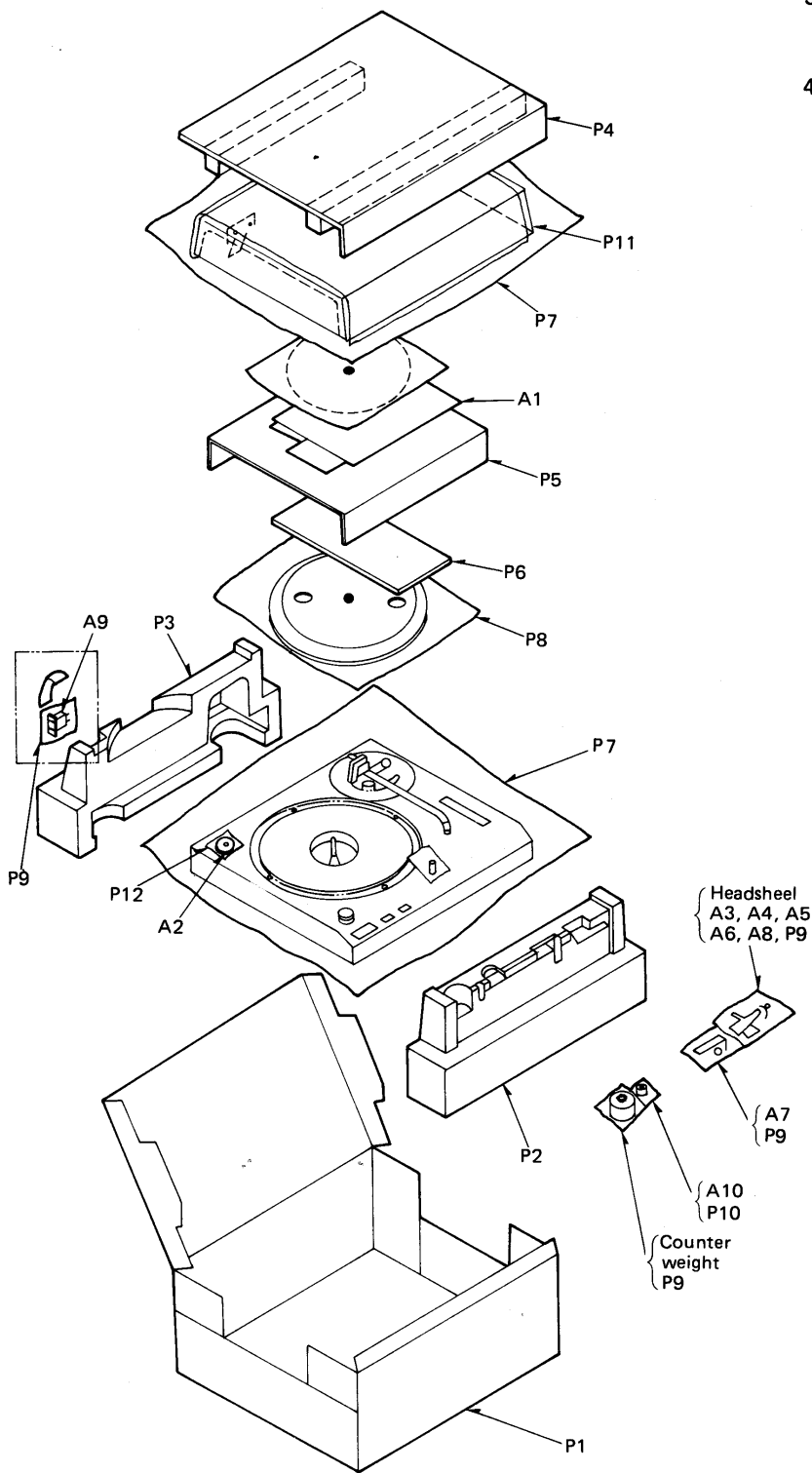




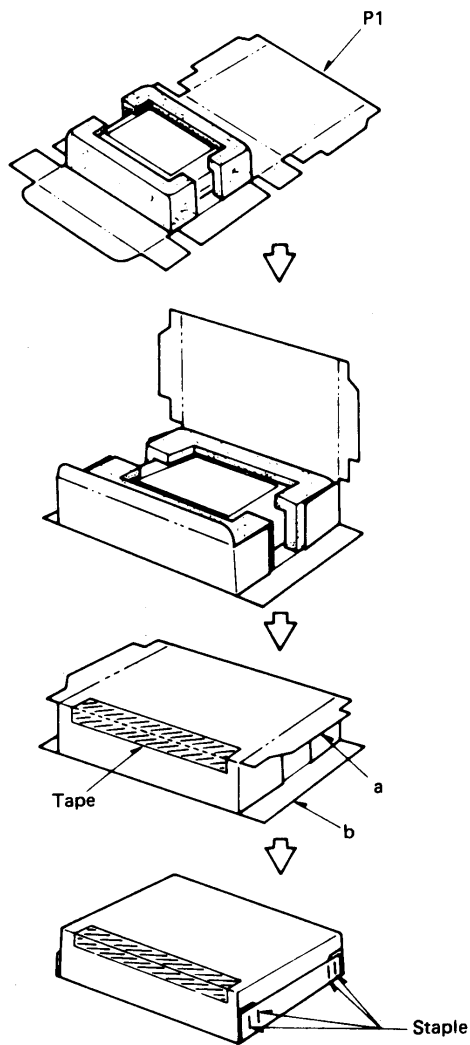
## ■ BLOCK DIAGRAM



## ■ 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.

