ORDER NO. SD7905-1563

Service Manual

SL-Q2/K

Turntable System

SL-Q2

(XA), (XAL), (XGE), (E),
(XG), (XGF), (XGB)

SL-Q2K

(KE), (KXG)

* The model SL-Q2 (XA) is available in Asia, Latin America, Middle East and Africa only.
* The model SL-Q2 (XAL) is available in Australia only.
* The model SL-Q2 (XGE) is available in United Kingdom only.
* The models SL-Q2 (E) and SL-Q2K (KE) are available in Scandinavia only.
* The models SL-Q2 (XG) and SL-Q2 (KXG) are available in European only.
* The model SL-Q2 (XGF) is available in France only.
* The model SL-Q2 (XGB) is available in Belgium only.

SPECIFICATIONS (Specifications are subject to change without notice.)

General

Power supply:	~110-120/220-240V, 50 or 60 Hz
Power consumption:	7.5 W
Dimensions: (W x H x D)	43.0 x 13.0 x 37.5 cm (16-59/64"x5-7/64"x14-49/64")
Weight:	6.9 kg (15.2 lb.)

Turntable section

Type:	Automatic turntable Auto return Auto stop
Drive method:	Direct drive
Motor:	Brushless DC motor
Turntable platter:	Aluminum die-cast Diameter 31.2 cm (12-9/32 inches)
Turntable speeds:	33-1/3 rpm and 45 rpm
Starting torque:	1 kg·cm (0.87 lb·in)
Build-up characteristics:	0.9 s. from standstill to 33-1/3 rpm
Speed change due to load torque:	0% within 0.7 kg·cm (0.61 lb·in)
Speed drift:	Within ±0.002%
Wow and flutter:	0.012% WRMS* 0.025% WRMS (JIS C5521) ±0.035% peak (IEC 98A Weighted)

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

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

Tonearm section

Type:	Universal tonearm
Effective length:	230 mm (9-1/16")
Overhang:	15 mm (19/32")
Friction:	Less than 7mg (lateral, vertical)
Effective mass:	12 g (without cartridge)
Tracking error angle:	Within 2°32′ at the outer groove of 30 cm (12") record Within 0°32′ at the inner groove of 30 cm (12") record
Offset angle:	22°
Stylus pressure adjustment range:	0–2.5 g
Applicable cartridge weight range:	6–9.5 g 13.5–17 g (including headshell)
(with shellweight)	3–6.5 g 10.5–14 g (including headshell)
Headshell weight:	7.5 g

Cartridge section

Model No.:	EPC-207C
Type:	Moving magnet
Frequency response:	20 Hz to 25 kHz
Output voltage:	3.2 mV at 1 kHz 5 cm/s., zero to peak lateral velocity [9 mV at 1 kHz 10 cm/s. zero to peak 45° velocity (DIN 45500)]
Channel separation:	25 dB at 1 kHz
Channel balance:	Within 2 dB at 1 kHz
Compliance (dynamic):	10×10^{-6} cm/dyne at 100 Hz
Stylus pressure:	1.75 ±0.25 g (17.5 ±2.5 mN)
Load impedance:	47 kΩ to 100 kΩ
Weight:	6.0 g (cartridge only)
Replacement stylus:	EPS-207ED

Technics

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

Allgemeine Daten (Änderungen der technischen Daten vorbehalten.)

Stromversorgung: ~110-120/220-240V, 50/60 Hz
Leistungsaufnahme: 7,5 W
Abmessungen (B x H x T): 43,0 x 13,0 x 37,5 cm
Gewicht: 6,9 kg

Plattenspieler

Typ: Automatischer Plattenspieler
Rückführautomatik
Stopautomatik
Antrieb: Direktantrieb
Motor: Kollektorloser Gleichstrommotor
Plattenteller: Aluminium-Spritzguß
Durchmesser 31,2 cm
Plattenteller-Drehzahlen: 33-1/3 und 45 U/min
Anlaufdrehmoment: 1 kg·cm
Drehzahl-Hochlaufzeit: 0,9 s. vom Stillstand auf 33-1/3 U/min
Drehzahl-Abweichung aufgrund von Lastschwankungen: 0% innerhalb 0,7 kg·cm
Drehzahl-Abweichung: Innerhalb ±0,002%
Gleichlaufschwankungen: 0,012% WRMS*
0,025% WRMS (JIS C5521)
±0,035% Spitze (IEC 98A bewertet)

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

Rumpel-Geräusch-spannungsabstand: –56 dB (IEC 98A unbewertet)
Rumpel-Fremd-spannungsabstand: –78 dB (IEC 98A bewertet)

Tonarm

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

Tonabnehmer

Modell-Nummer: EPC-207C
Typ: Magnetischer Tonabnehmer
Frequenzgang: 20 Hz bis 25 kHz
Ausgangsspannung: 3,2 mV bei 1 kHz
5 cm/s. Null-zu-Spitze, lateral
[9 mV bei 1 kHz 10 cm/s. Null-zu-Spitze, 45° (DIN 45500)]
Kanaltrennung: 25 dB bei 1 kHz
Kanalabweichung: Innerhalb 2 dB bei 1 kHz
Nachgiebigkeit (dynamisch): 10×10^{-6} cm/dyn bei 100 Hz
Auflagekraft: 1,75 ±0,25 (17,5 ±2,5 mN)
Impedanz: 47 kΩ bis 100 kΩ
Gewicht: 6.0 g (ohne Tonarmkopf)
Ersatznadel: EPS-207ED

Généralités (Les spécifications sont susceptibles d'être modifiées sans préavis.)

Alimentation: ~110-120/220-240V, 50 ou 60 Hz
Consommation: 7,5 W
Dimensions: (L x H x P) 43,0 x 13,0 x 37,5 cm
Poids: 6,9 kg

Platine de lecture

Type: Platine automatique
Retour automatique
Arrêt automatique
Système d'entrainement: Entraînement direct
Moteur: Moteur C.C. sans balai
Plateau de lecture: Aluminium moulé sous pression
Diamètre 31,2 cm
Vitesses de rotation: 33-1/3 et 45 t/p.m
Couple de démarrage: 1 kg·cm
Caractéristiques d'augmentation: 0,9 s. de l'arrêt à 33-1/3 t/p.m.
Variation de vitesse due au couple de charge: 0% en deçà de 0,7 kg·cm
Déviation du nombre de tours: En deçà de ±0,002%
Pleurage et scintillement: 0,012% WRMS*
0,025% de valeur efficace (JIS C5521)
±0,035% de créte (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 du bras de lecture, mais comprenant le plateau. Mesuré par l'obtention d'un signal provenant du générateur de fréquences incorporé de l'ensemble du moteur.

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

Bras de lecture

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

Cellule pick-up

No. du modèle: EPC-207C
Type: Aimant mobile
Réponse en fréquence: 20 Hz à 25 kHz
Tension de sortie: 3,2 mV à 1 kHz; 5 cm/s., zéro à vitesse latérale de crête
(9 mV à 1 kHz; 10 cm/s., zéro à vitesse 45° de crête [DIN 45500])
Séparation de canal: 25 dB à 1 kHz
Equilibrage des canaux: En deçà de 2 dB à 1 kHz
Elasticité (dynamique): 10×10^{-6} cm/dyne à 100 Hz
Pression de la pointe de lecture: 1,75 ±0,25 gramme (17,5 ±2,5 mN)
Impédance de charge: 47 kΩ to 100 kΩ
Poids: 6,0 grammes (cellule seule)
Pointe de lecture de remplacement: EPS-207ED

■ CONTENTS

■ PARTS IDENTIFICATION

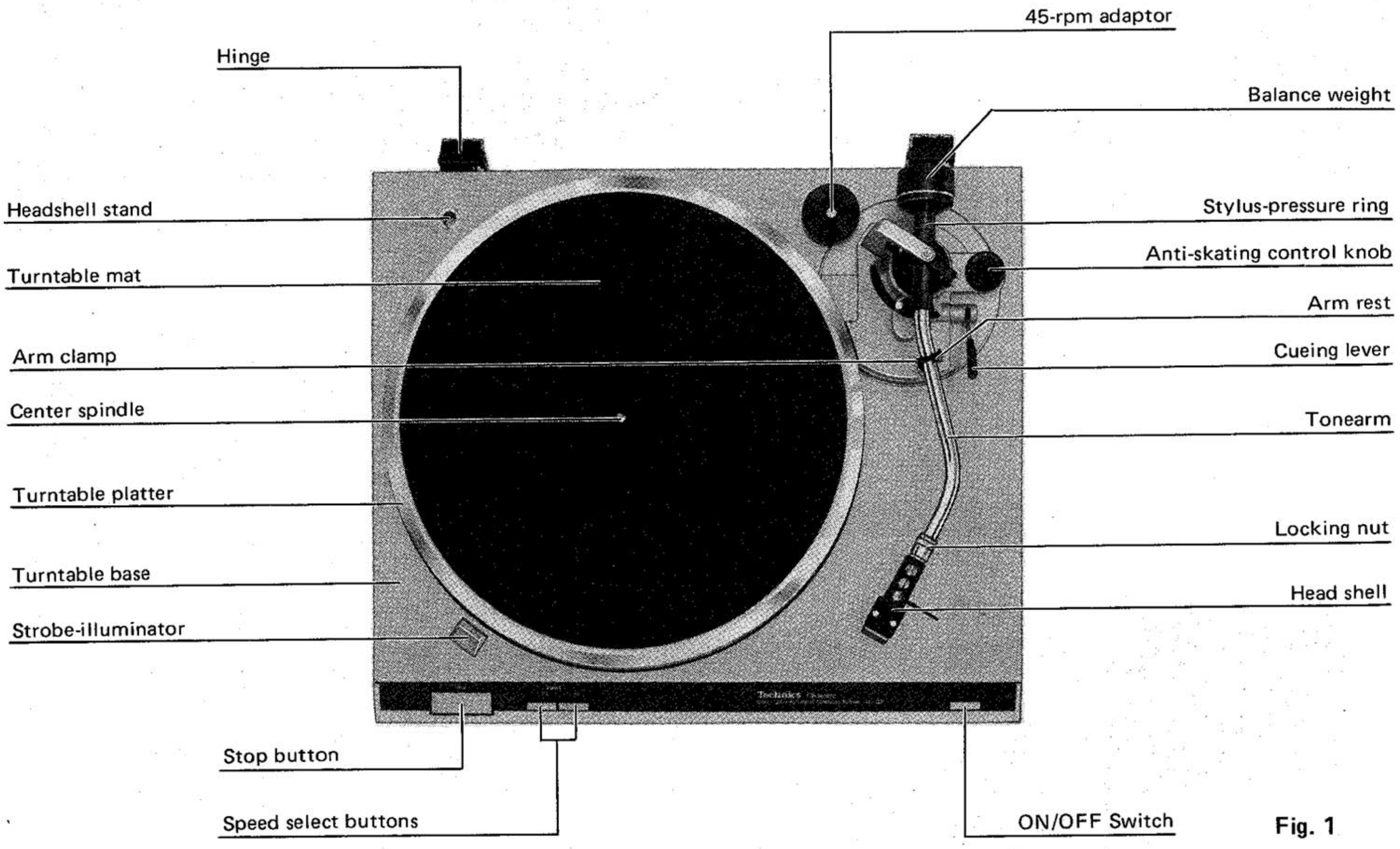


Fig. 1

■ FEATURES

- **Front panel controls provide exceptional convenience**
- **Quartz-phase-locked direct drive plus full cycle Frequency Generator and integral rotor-platter motor**
- **Precision aluminum diecase turntable base unique to Technics is used**
- **"TNRC"* base material provides an acoustic shield**
  *"TNRC" . . . . . Technics Non-Resonance Compound
- **Low-mass, low-friction gimbal suspension tonearm**
- **Pitch control with illuminated stroboscope**
- **Smooth braking is achieved with the fully electronic system, which also makes possible almost instantaneous speed change**
- **Viscous-damped cueing**
- **Anti-skating control**
- **Hinged, detachable dust cover**
- **Automatic tonearm return**

■ DISASSEMBLY PROCEDURE

How to remove bottom board

1. Remove head shell and turntable.
2. Secure arm with arm clamp.
3. Turn the set upside-down taking care not to damage dust cover.
4. Remove 4 setscrews ❸ . (See Fig. 2)

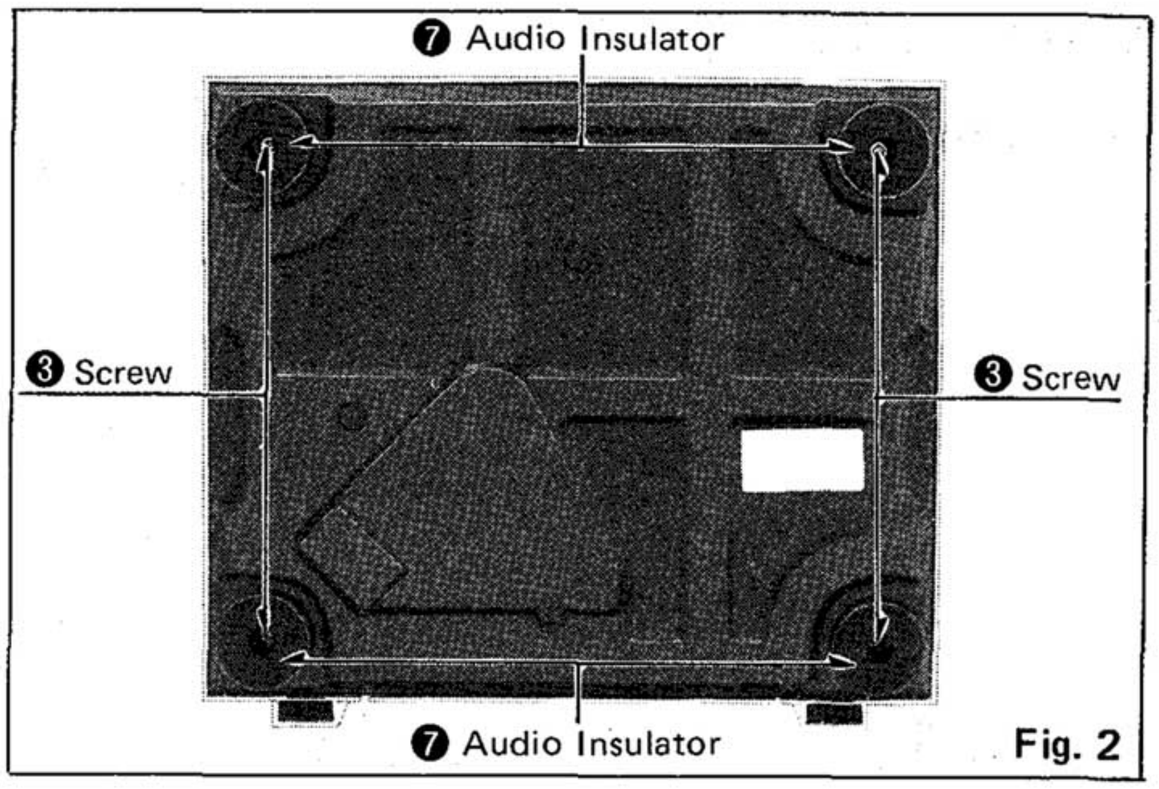


Fig. 2

How to remove stater frame ass'y and FG detector coil ass'y

1. Remove the bottom board.
2. Remove 7 setscrews ❷, ❾ of the drive P.C.B. and auto mechanism ass'y. (See Fig. 3)
3. Remove 3 setscrews ⓫ of the stater frame cover, (See Fig. 4)
4. Remove soldering at each coil of the stater frame. (See Fig. 5)

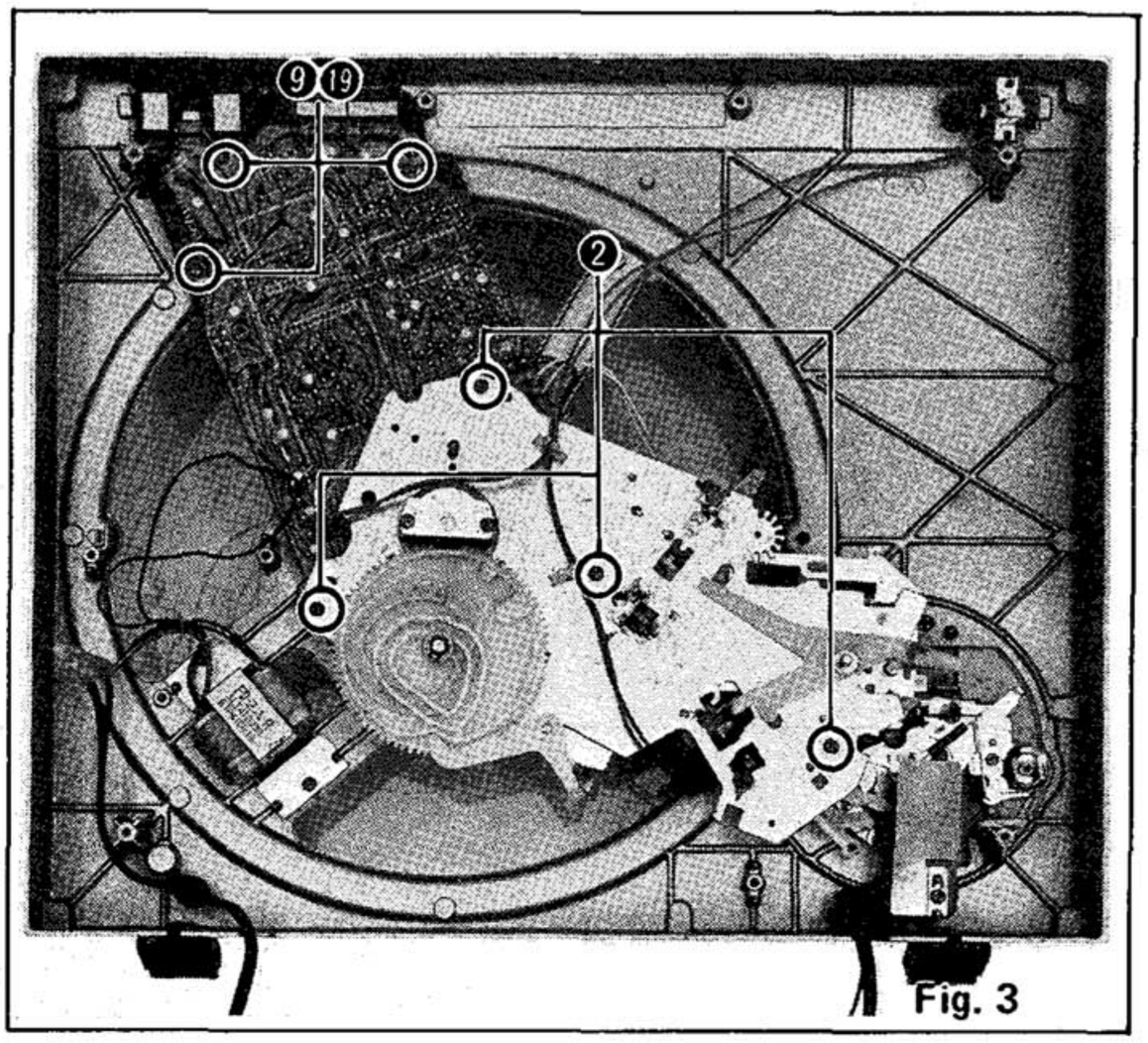


Fig. 3

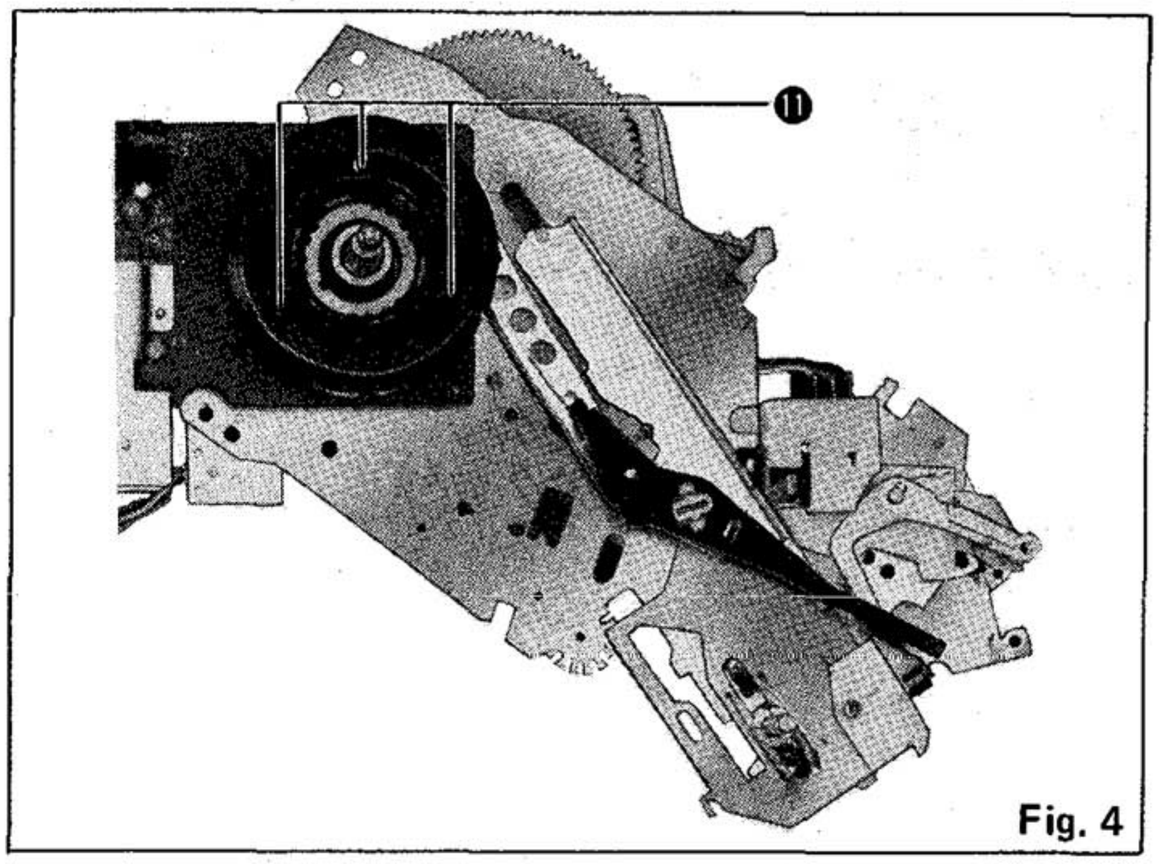


Fig. 4

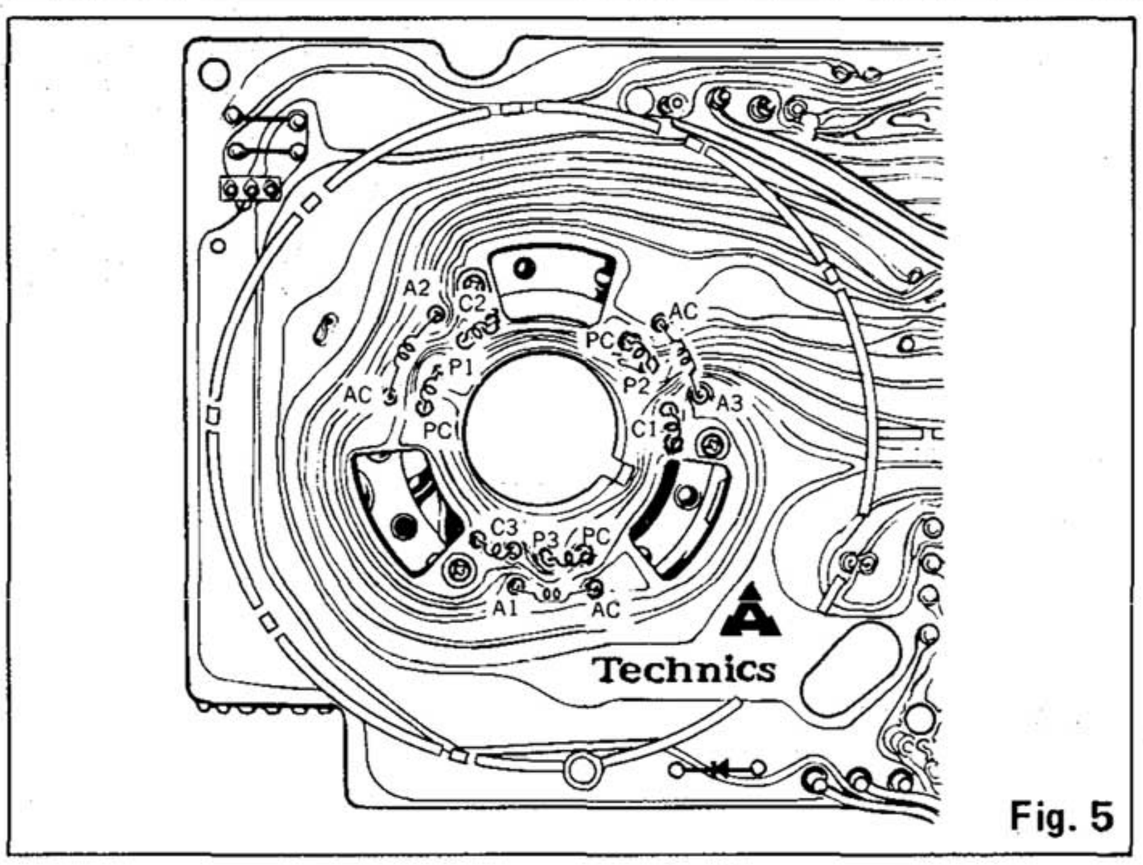
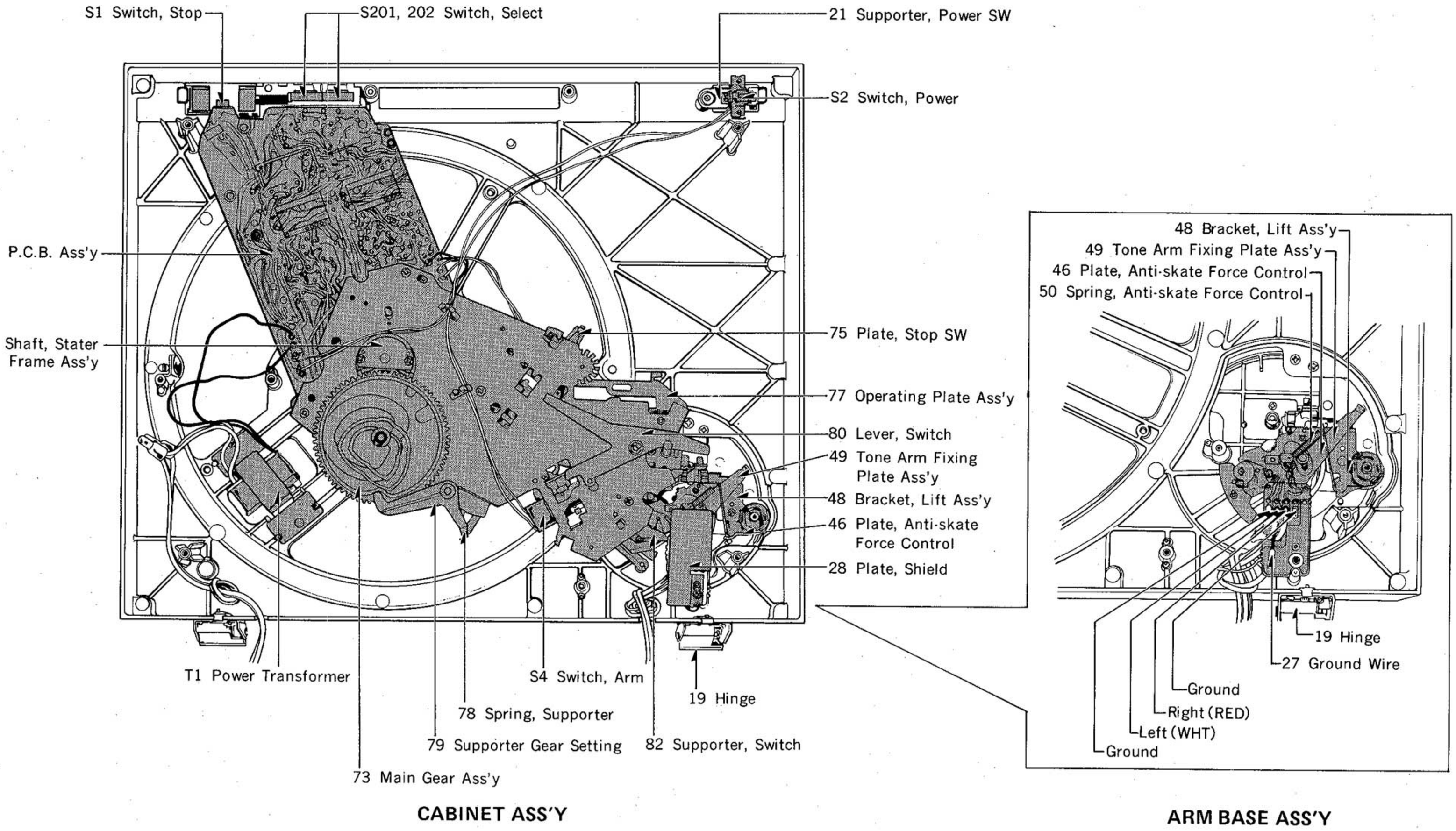


Fig. 5

Remarks:
For the disassembly of parts ather then the above, refer to the parts arrangement and development diagrams provided in this manual.

■ PARTS ARRANGEMENT DIAGRAM



CABINET ASS'Y

ARM BASE ASS'Y

Fig. 6

■ HOW TO OPERATE

1. Place a record on the turntable mat.
2. Set the on/off switch to the "**on**" position (▂). **(See Fig. 7.)**
3. Push the speed select button to the desired record speed. **(See Fig. 8.)**
4. Remove the stylus protector, if your cartridge has a detachable one.
5. Release the arm clamp.
6. Set the cueing lever to the up position. **(See Fig. 9.)**
7. Move the tonearm over the desired groove.
8. Set the cueing lever to the down position. **(See Fig. 10)**
   The tonearm will descend slowly onto the record and play will begin.
9. When play is finished, move the tonearm to the arm rest; secure the tonearm with the arm clamp.
   If the unit is not to be used for some time, set the on/off switch to the "**off**" position (▃).
   Attach the stylus protector, if you have one, to guard the stylus tip from damage.

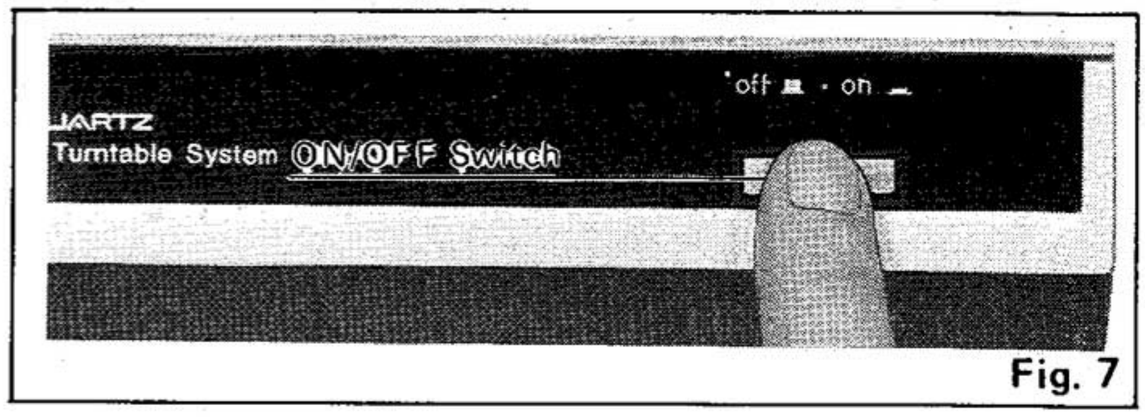


Fig. 7

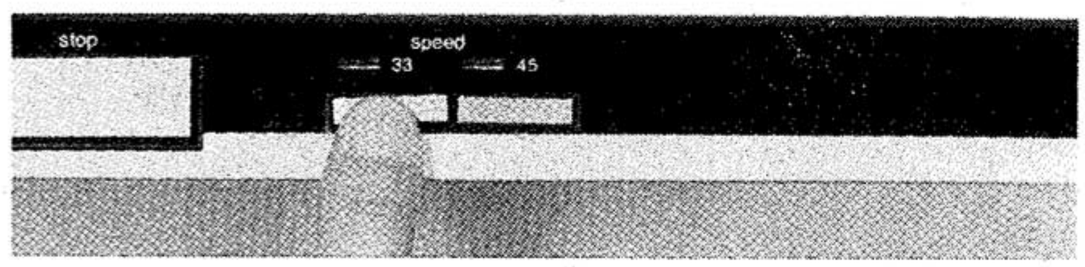


Fig. 8

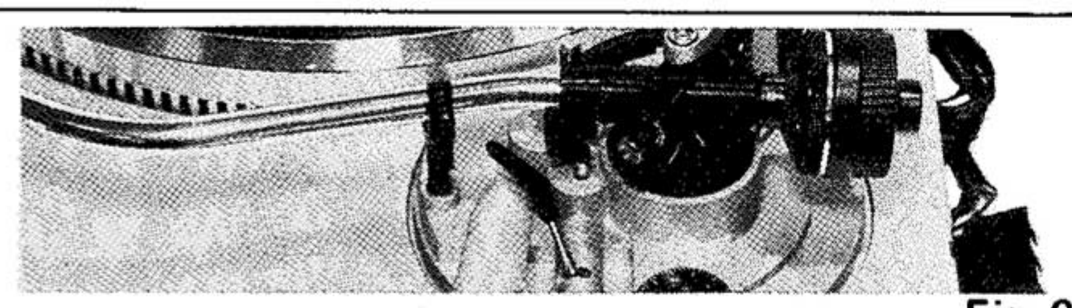


Fig. 9

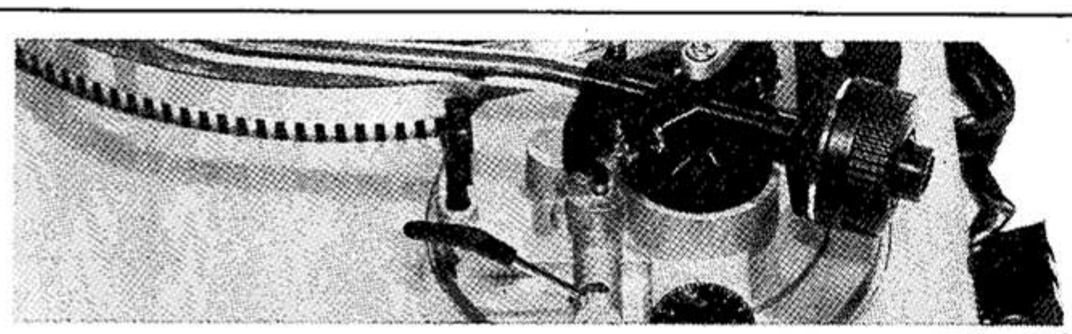


Fig. 10

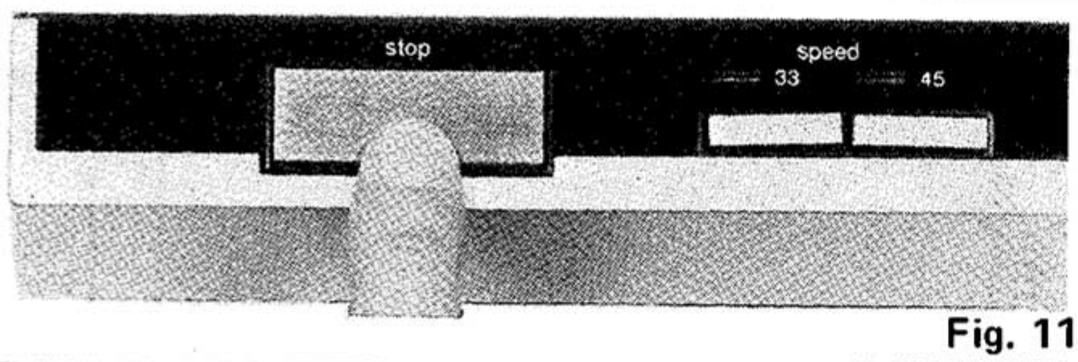


Fig. 11

How to stop play

Push the stop button. **(See Fig. 11.)**
The tonearm automatically returns to the arm rest, and the turntable stops rotating.
Of course, the unit will automatically shut off even when the tonearm is manually returned to its arm rest directly.

How to suspend play

Set the cueing lever to the up position.
The stylus tip of the cartridge will be lifted from the record.

When you play a 45-rpm record with a large center hole

Place the 45-rpm adaptor on the center spindle. Push the speed select button to the "**45**" position.

Adjustment of overhang (See Fig. 12.)

1. Insert the headshell into the gauge.
2. Loosen the mounting screws and move the cartridge forward or backward until the stylus tip lines up with the edge of the gauge.
3. Tighten the mounting screws without moving the cartridge.
   Note:
   Your cartridge is now adjusted for lowest tracking error and minimum distortion.
   This gauge is exclusively designed for this tonearm.

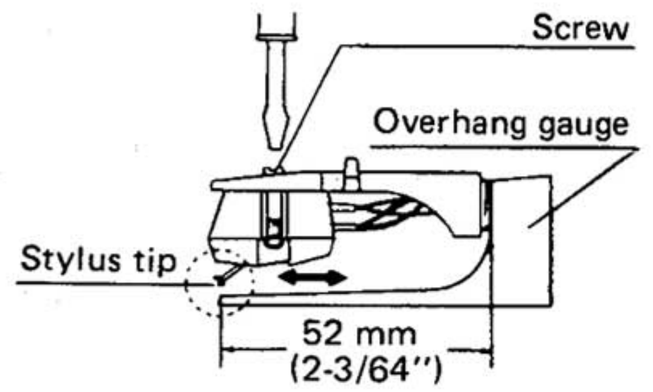


Fig. 12

Lubrication (See Fig. 13.)

Apply 2 or 3 drops of oil once after every 2000 hours of operation.
The time interval is much longer than that for conventional type motors (200~500 hours).
Please purchase original oil. **(Part number is SFWO 010.)**

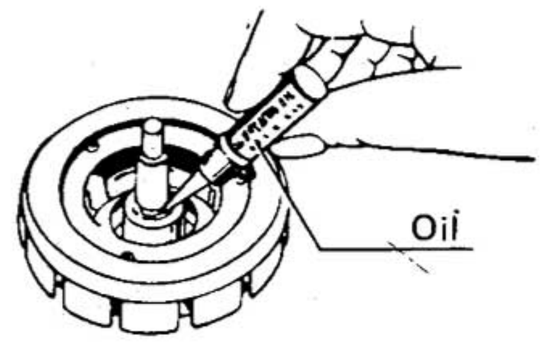
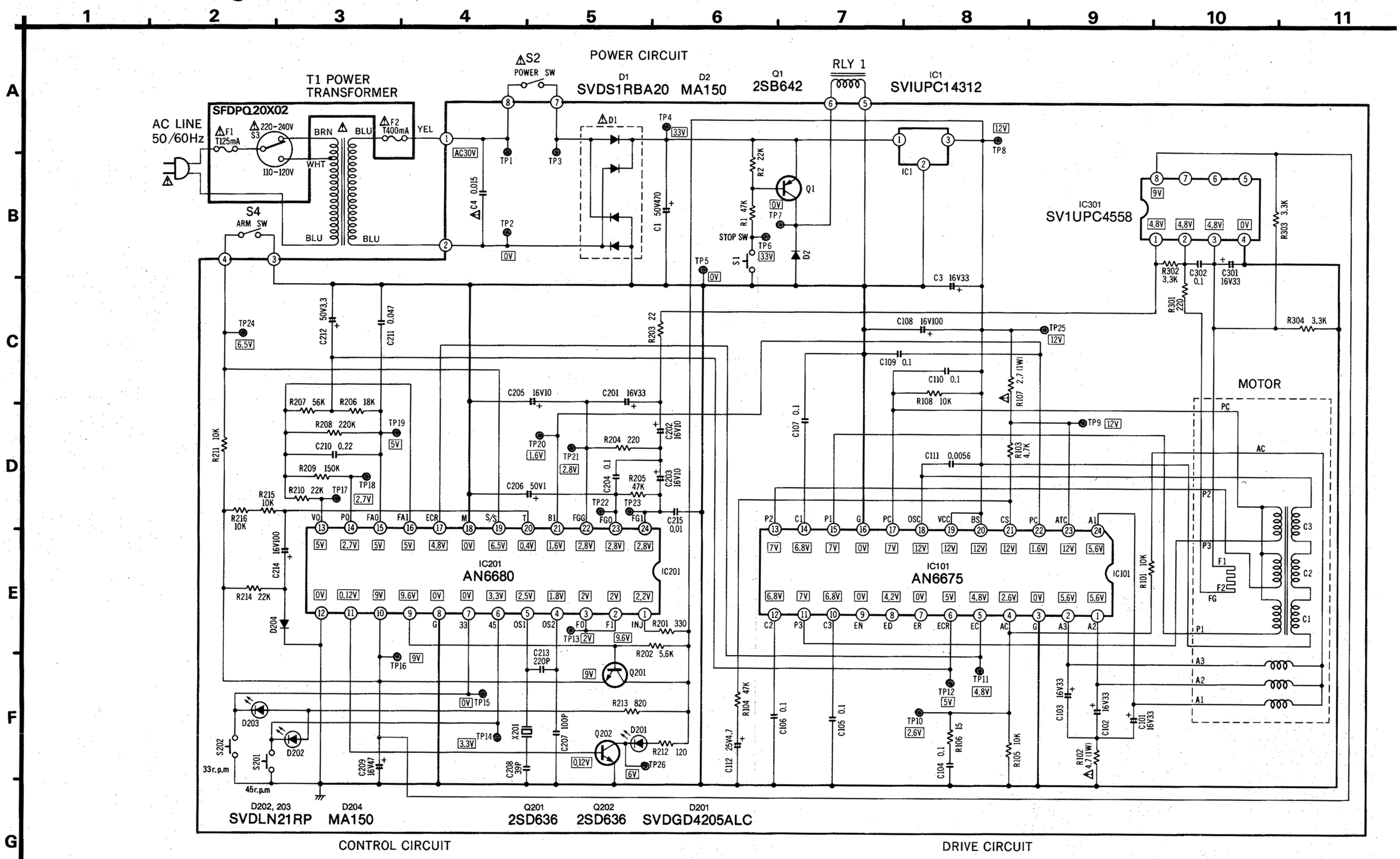


Fig. 13

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



Notes:

1. **S1 :** Stop switch in **"OFF"** position.
2. **S2 :** Power switch in **"OFF"** position.
3. **S3 :** Power selector switch in **"220~240V"** position.
4. **S4 :** Arm switch in **"OFF"** position.
5. **S201 :** Speed select switch (45 r.p.m.) in **"OFF"** position.
   S202 : Speed select switch (33 r.p.m.) in **"OFF"** position.
6. The voltage values are those measured on DC Voltmeter at 33-1/3 r.p.m.
   For the voltage and waveform at each IC pin, refer to page.
7. To represent transistors, Q is used instead of TR. (Ex. TR1→Q1)

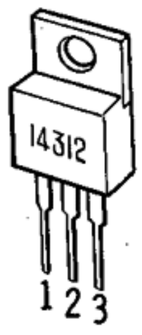
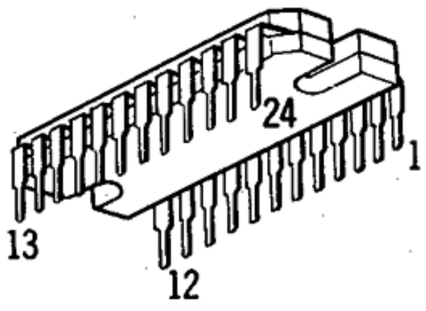
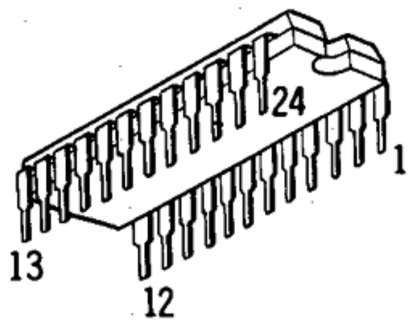
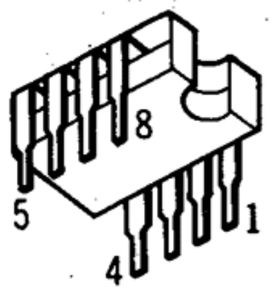
■ REPLACEMENT PARTS LIST

Notes: 1. Part numbers are indicated on most mechanical parts.
Please use this part number for parts orders.
2. ⚠ indicates that only parts specified by the manufacture be used for safety.
3. SL-Q2 (XA)⟶ [XA] , SL-Q2 (XAL)⟶ [XAL]
SL-Q2 (XGE)⟶ [XGE] , SL-Q2 (E)⟶ [E]
SL-Q2 (XG)⟶ [XG] , SL-Q2 (XGF)⟶ [XGF]
SL-Q2 (XGB)⟶ [XGB] , SL-Q2K (E)⟶ [KE]
SL-Q2K (XG)⟶ [KXG]

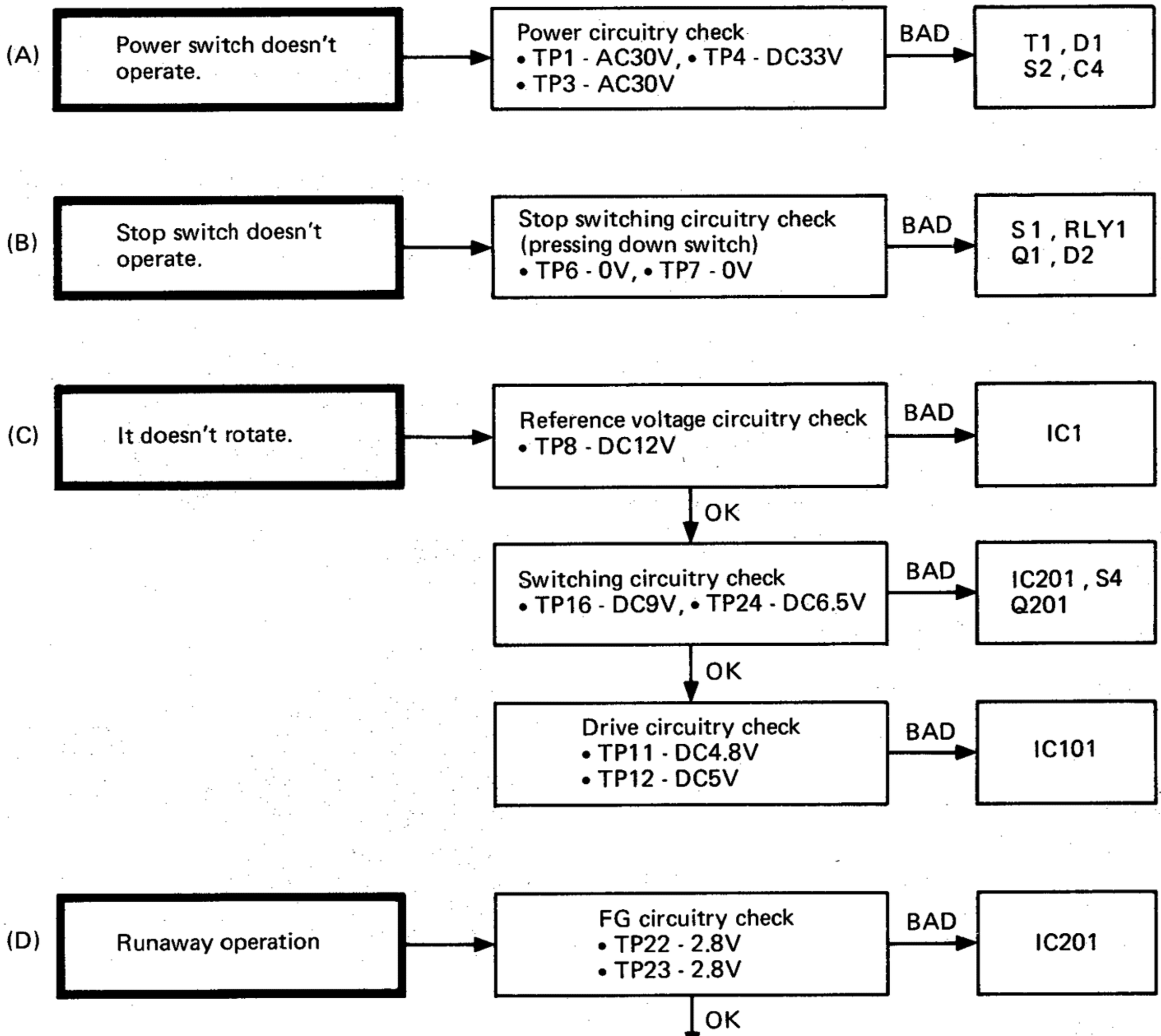
Ref. No.		Part No.	Part Name & Description
INTEGRATED CIRCUITS			
IC1		SVIUPC14312	Integrated Circuit (Reference Voltage)
IC101		AN6675	Integrated Circuit (Drive)
IC201		AN6680	Integrated Circuit (Control)
IC301		SVIUPC4558C	Integrated Circuit (Control)
TRANSISTORS			
Q1		2SB642	Transistor
Q201, 202		2SD636	Transistor
DIODES			
D1	⚠	SVDS1RBA20	Rectifier
D2, 204		MA150	Diode
D201		SVDGD4205ALC	Light Emitting Diode
D202, 203		SVDLN21RP	Light Emitting Diode
TRANSFORMER			
T1	⚠	SLT41D27E	Power Transformer
CRYSTAL			
X201		SVQU306115	Crystal, 4. 19328MHz Oscillator
SWITCHES			
S1		EVQP5R04K	Switch, Stop
S2	⚠	ESB6237	Switch, Power
S3	⚠	SFDSHXW13312	Switch, Power Selector
S4		SFDSAH74403	Switch, Arm
S201, 202		EVQP5R04K	Switch, Select
RELAY			
RLY1		SFDZQ20-03A	Relay
FUSE			
F1		XBA2C012TRO	Fuse, T125 mA
F2		XBA2C04TRO	Fuse, T400 mA
RESISTORS			
R1		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R2		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R101		**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R102	⚠	ERX1ANJ4R7	Metallic, 4.7Ω, 1W, ± 5%
R103		**ERD25TJ472**	Carbon, 4.7kΩ, 1/4W, ± 5%
R104		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%

Ref. No.		Part No.	Part Name & Description
R105		**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R106		**ERD25TJ150**	Carbon, 15Ω, 1/4W, ± 5%
R107	⚠	ERX1ANJ2R7	Metallic, 2.7Ω, 1W, ± 5%
R108		**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R201		**ERD25TJ331**	Carbon, 330Ω, 1/4W, ± 5%
R202		**ERD25TJ562**	Carbon, 5.6kΩ, 1/4W, ± 5%
R203		**ERD25TJ220**	Carbon, 22Ω, 1/4W, ± 5%
R204		**ERD25TJ221**	Carbon, 220Ω, 1/4W, ± 5%
R205		**ERD25TJ822**	Carbon, 8.2kΩ, 1/4W, ± 5%
R206		**ERD25TJ183**	Carbon, 18kΩ, 1/4W, ± 5%
R207		**ERD25TJ563**	Carbon, 56kΩ, 1/4W, ± 5%
R208		**ERD25TJ224**	Carbon, 220kΩ, 1/4W, ± 5%
R209		**ERD25TJ154**	Carbon, 150kΩ, 1/4W, ± 5%
R210		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R211		**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R212		**ERD25TJ121**	Carbon, 120Ω, 1/4W, ± 5%
R213		**ERD25TJ821**	Carbon, 820Ω, 1/4W, ± 5%
R214		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R215, 216		**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R301		**ERD25TJ221**	Carbon, 220Ω, 1/4W, ± 5%
R302, 303, 304		**ERD25TJ332**	Carbon, 3.3kΩ, 1/4W, ± 5%
CAPACITORS			
C1		**ECEB1HS471**	Electrolytic, 470μF, 50V
C3		**ECEA1CS330**	Electrolytic, 33μF, 16V
C4	⚠	ECQM1H153KZ	Polyester, 0.015μF, 50V. ±10%
C101, 102, 103		**ECEA1CS330**	Electrolytic, 33μF, 16V
C104, 105 106, 107		ECQM1H104KZ	Polyester, 0.1μF, 50V, ±10%
C108		**ECEA1ES101**	Electrolytic, 100μF, 25V
C109, 110		ECQM1H104KZ	Polyester, 0.1μF, 50V, ±10%
C111		ECQM1H562KZ	Polyester, 0.0056μF, 50V, ±10%
C112		**ECEA25Z4R7**	Electrolytic, 4.7μF, 25V
C201		**ECEA1CS330**	Electrolytic, 33μF, 16V
C202, 203		**ECEA1HS100**	Electrolytic, 10μF, 25V
C204		ECQM1H104KZ	Polyester, 0.1μF, 50V, ±10%
C205		**ECEA1AS221**	Electrolytic, 220μF, 25V
C206		**ECEA50Z1**	Electrolytic, 1μF, 50V
C207		ECCD1H101K	Ceramic, 100pF, 50V, ±10%
C208		ECCD1H390K	Ceramic, 39pF, 50V, ±10%
C209		**ECEA1ES470**	Electrolytic, 47μF, 25V
C210		ECQM1H224KZ	Polyester, 0.22μF, 50V, ±10%
C211		ECQM1H473KZ	Polyester, 0.047μF, 50V, ±10%
C212		**ECEA50Z3R3**	Electrolytic, 3.3μF, 50V,
C213		ECCD1H221K	Ceramic, 220pF, 50V, ±10%
C214		**ECEA1ES101**	Electrolytic, 100μF, 25V
C215		ECQM1H103KZ	Polyester, 0.01μF, 50V, ±10%
C301		**ECEA1CS330**	Electrolytic, 33μF, 16V
C302		ECQM1H104KZ	Polyester, 0.1μF, 50V, +10%

■ TERMINAL GUIDE OF TRANSISTOR AND IC

SVIUPC14312	AN6675	AN6680	SVIAUPC4558C
			

■ TROUBLE SHOOTING



■ ADJUSTMENTS

Adjustment of arm-lift height (See Figs. 14 and 15.)

The arm-lift height (distance between the stylus tip and record surface when cueing lever is at the up position) has been adjusted at the factory before shipment to approximately 5 to 10 mm.

For using different cartridges available on the market or when further adjustments are particularly necessary, make adjustment as follows:

1. Move the tonearm toward the center spindle.
   Attach the stylus protector, if available, to guard the stylus tip from damage.
2. Turn the adjustment screw clockwise or counterclockwise, while pushing the arm lift down.
   Clockwise rotation
   —distance between the record and stylus tip is reduced.
   Counterclockwise rotation
   —distance between the record and stylus tip is increased.
   Note:
   As the adjusting screw has a hexagonal head, be sure to make the adjustment while depressing the arm lift, or the screw will not move freely.
   Also be sure that the hexagonal head retracts correctly into the arm lift when the latter is released.

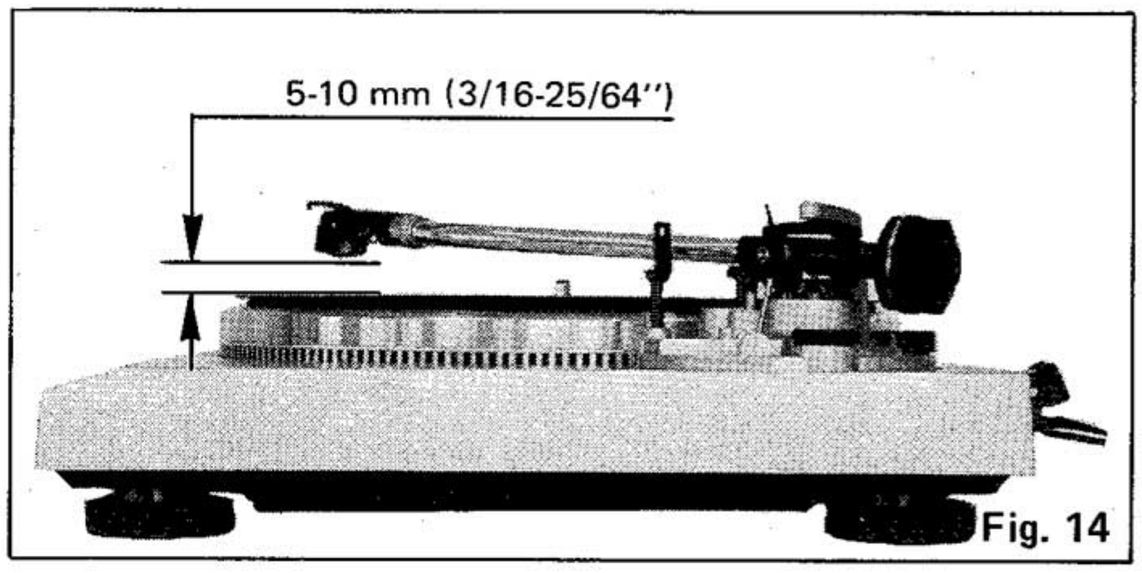


Fig. 14

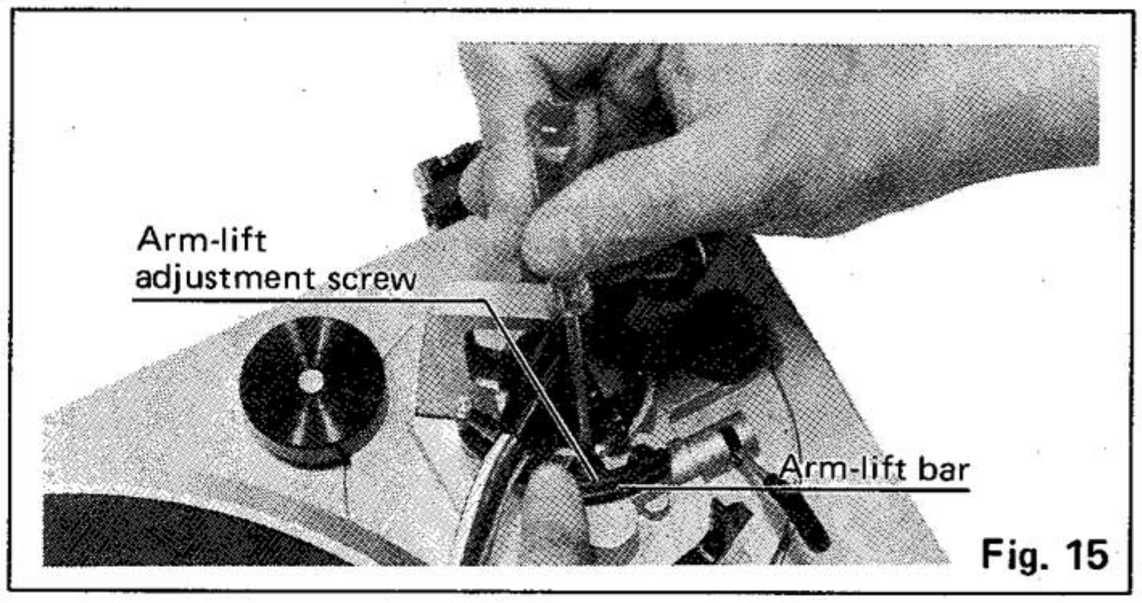


Fig. 15

Adjustment for automatic return position (See Fig. 16.)

(Remove the turntable mat.)

In cases where the tonearm tends to return before the playing has finished.

—rotate clockwise.

In cases where the tonearm fails to return after the last groove of the record has been played.

—rotate counterclockwise.

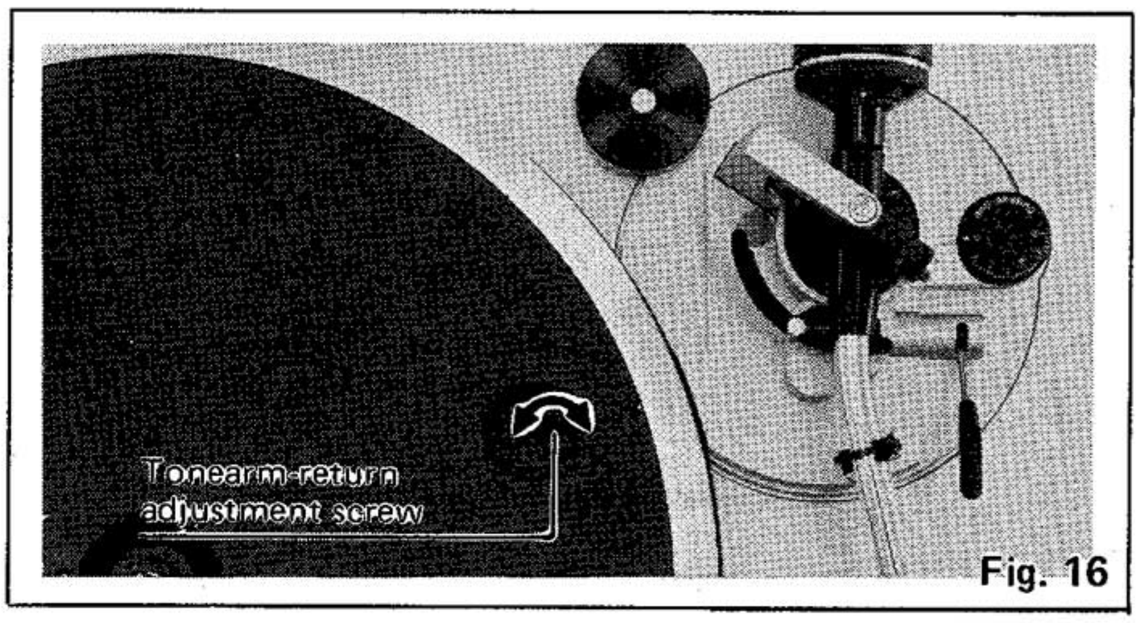


Fig. 16

■ JUSTIERUNGEN

Justierung der Tonarmlifthöhe (Vgl. Abb. 14 und 15.)

Die Tonarmlifthöhe, d.h. der Abstand zwischen Nadelspitze und Schallplattenoberfläche bei angehobenem Lift-Hebel, ist werkseitig auf 5—10 mm eingestellt worden.

Wenn Sie einen anderen Tonabnehmertyp verwenden, oder, wenn weitere Justierungen unbedingt nötig sind, nehmen Sie die Justierungen auf folgende Weise vor:

1. Schwenken Sie den Tonarm gegen die Plattentellerachse.
   Setzen Sie den Nadelschutz auf, damit die Nadelspitze vor Beschädigung geschützt wird.
2. Drehen Sie die Justierschraube im Uhrzeiger- oder Gegenuhrzeigersinn, während Sie die Tonarmliftführung nach unten drücken.
   Drehung im Uhrzeigersinn
   —Der Abstand wird kleiner.
   Drehung im Gegenuhrzeigersinn
   —Der Abstand wird größer.

Anmerkung:

Da die Justierschraube einen Sechskantkopf hat, muß die Tonarmliftführung während des Justierens unbedingt gedrückt gehalten werden, damit sich die Schraube leicht drehen läßt.

Vergewissern Sie sich, daß der Sechskantkopf in die Tonarmliftführung zurückkehrt, wenn diese losgelassen wird.

Justierung des Abschaltpunktes der Automatik (Vgl. Abb. 16.)

(Die Plattentellerauflage abnehmen.)

Falls der Tonarm zu früh zurückkehrt.

—Im Uhrzeigersinn drehen.

Falls der Tonarm nach Erreichen der Auslaufrille nicht zurückkehrt.

—Im Gegenuhrzeigersinn drehen.

■ REGLAGES

Mise au point de la hauteur de l'élévateur du bras (Voir Figs. 14 et 15.)

La hauteur de l'élévateur du bras (distance entre l'extrémité de la pointe de lecture et la surface du disque, lorsque le levier de pose et de relevage du bras est à la position vers le haut) a été réglée en usine avant son départ sur approximativement 5 à 10 mm.

Pour l'utilisation des diverses cellules pick-up disponibles sur le marché ou lorsque des mises au point ultérieures sont particuliérement nécessaires, faire les réglages d'après ce qui suit:

1. Déplacer le bras de lecture vers le pivot central.
   Fixer le capot protecteur de la pointe de lecture, s'il en existe un, pour protéger l'extrémité de la pointe d'une éventuelle détérioration.
2. Tourner la vis de réglage dans le sens des aiguilles d'une montre ou dans le sens inverse, tout en abaissant l'élévateur du bras.
   Rotation dans le sens des aiguilles d'une montre.
   —La distance entre la surface du disque et l'extrémité de la pointe de lecture diminue.
   Rotation dans le sens contraire des aiguilles d'une montre.
   —La distance entre la surface du disque et l'extrémité de la pointe de lecture augmente.

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

Mise au point pour une position de retour automatique (Voir Fig. 25.)

(Retirer le tapis du plateau de lecture.)

Dans le cas où le bras de lecture tend à revenir avant que l'audition ne soit terminée.

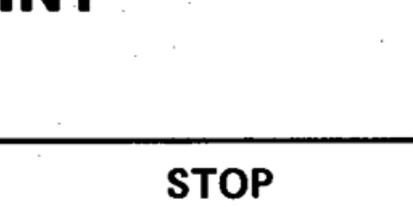
—Déplacer dans le sens des aiguilles d'une montre.

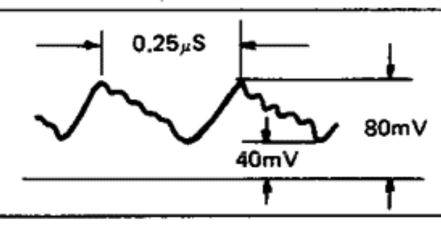
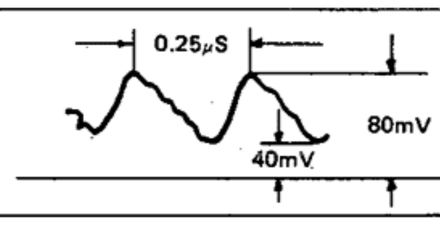
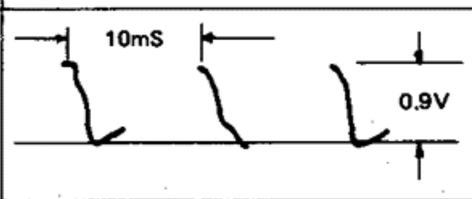
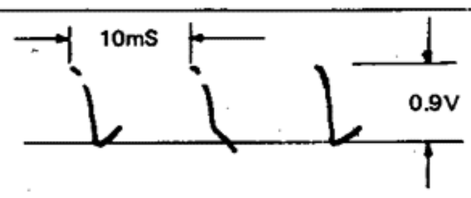
Dans le cas où le bras de lecture ne peut revenir en arriére après que le dernier sillon du disque ait été joué.

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

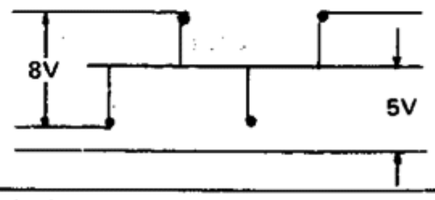
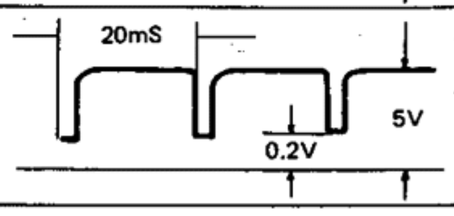
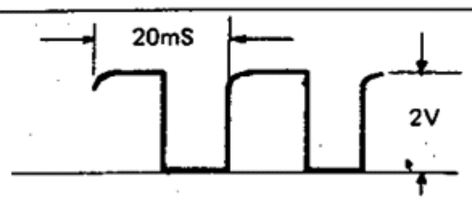
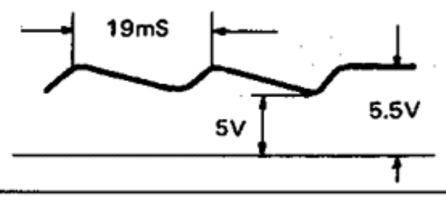
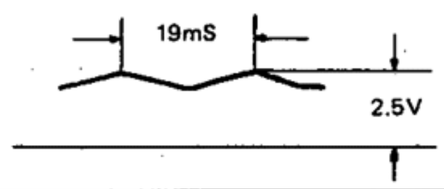
■ REFERENCE VOLTAGE AND WAVEFORM AT EACH IC PIN AND TEST POINT

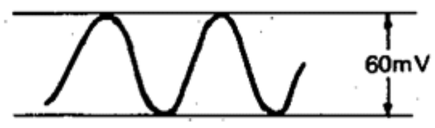
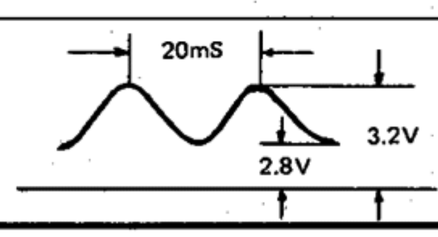
IC201 AN6680

	START	STOP
①	2.5V	2.5V
② ③		
④		
⑤		
⑥	3.5V	3.5V

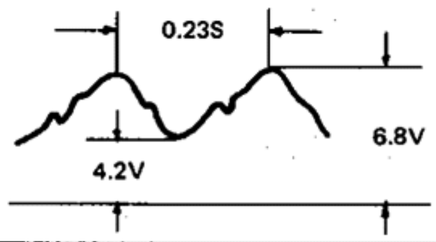
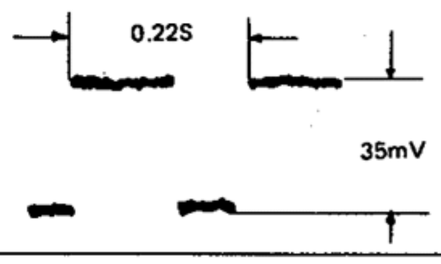
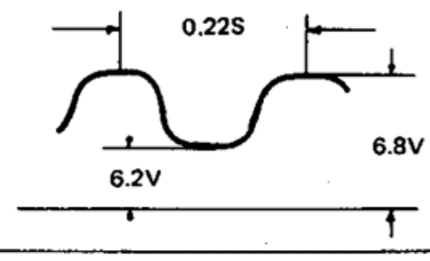
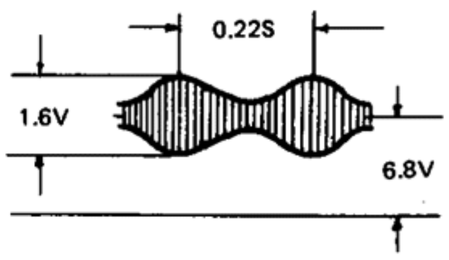
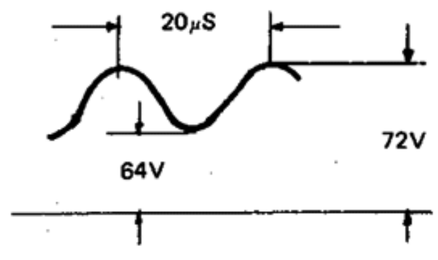
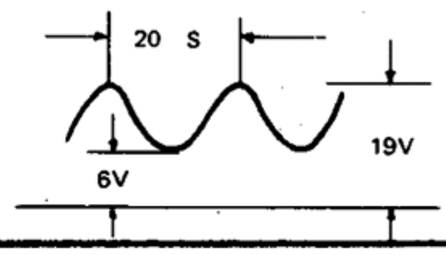
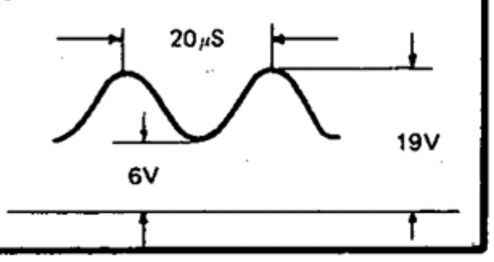
	START	STOP
⑦		
⑧ ⑫	0V	0V
⑨	10.2V	10.2V
⑩	9.0V	9.0V
⑪		

IC201 AN6680

	START	STOP
⑬		0.2V
⑭		
⑮		8V
⑯	5.2V	
⑰	5.2V	5.2V

	START	STOP
⑱		2.4V
⑲	7V	0V
⑳	0.4V	6.2V
㉑	1.8V	0.2V
㉒ ㉔	3V	3.2V
㉓		3.2V

IC101 AN6675

	START	STOP
① ② ㉔		0.2V
⑨		0V
⑩ ⑫ ④		2.5V
⑪ ⑬ ⑮		
⑱		

	START	STOP
③ ⑦ ⑯	0V	0V
④	2.8V	0.2V
⑤ ⑧	5.2V	5V
⑥	5.2V	6.8V
⑰	6.8V	6.8V
⑲ ⑳ ㉑ ㉓	12V	12V
㉒	2V	0.2V

Printed Circuit Board

+ B Lines
Earth (Ground) Lines

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

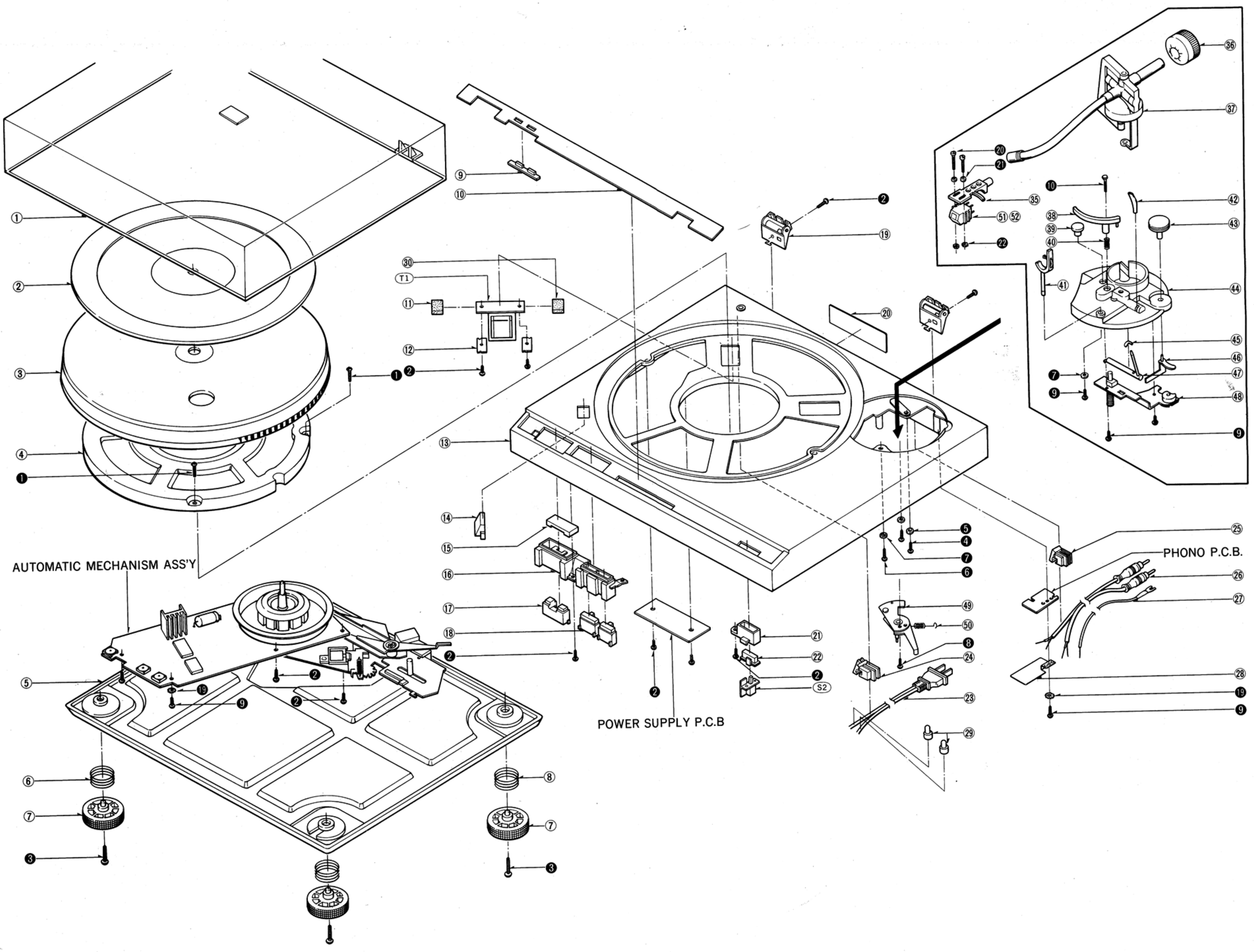
A B C D E F G H

YEL
WHT
BRN
BLU
110–120V
220–240V
S3
F1 T125mA
F2 T400mA
SFDPQ20-02
POWER SWITCH
S2
SKYBLU
BLU
T1
POWER TRANSFORMER
D1
SVDS1RBA20
IC1
SVIUPC14312
AC LINE
50/60Hz
D201
SVDGD4205ALC
STOP SWITCH
EYPC 94HB
SFDPQ20-01
Q1
2SB642
E 33 V
C 0 V
B 0.7 V
R1 47K
R2 22K
C1 50V470
C4 0.015
TP4
TP8
R107 2.7 (1W)
C112 25V4.7
TP9
R103 4.7K
R104 47K
C111 0.0056
TP5
C109 0.1
R108 10K
C108 16V100
C110 0.1
C107 0.1
R101 10K
R102 4.7 (1W)
C3 16V33
R212 120
C101 16V33
C102 16V33
C103 16V33
IC101
C104 0.1
R105 10K
R106 15
TP10
TP11
TP12
C105 0.1
C106 0.1
R201 330
C207 100P
C213 220P
R202 5.6K
C208 39P
Q201
X201
C209 16V47
C210 0.22
IC201
TP13
R209 150K
R210 22K
C211 0.047
C206 50V1
R214 22K
R216 10K
R211 10K
C203 16V10
R204 220
C202 16V10
R203 22
C201 16V33
C205 16V10
C212 50V3.3
R208 220K
R205 47K
C204 0.1
C215 0.01
D204
R206 18K
R207 56K
TP16
FG
F2
F1
D2
A2
C2
AC
P1
PC
A3
C1
C3
P3
A1
D202
S202
S201
R213 820
Q202
2SD636
E 0 V
C 6 V
B 0.12 V
D202, 203
SVDLN21RP
33 r.p.m
45 r.p.m
SPEED SELECT SWITCH
IC301
SV1UPC4558
Q201
2SD636
E 9 V
C 12 V
B 9.6 V
IC301
1 4.8V
2 4.8V
3 4.8V
4 0 V
8 9 V
R302 3.3
C302 0.1
R301 220
C301 16V33
R304 3.3
R303 3.3
SFDPQ20-03
D2
MA150
D204
MA150
DRIVE & CONTROL CIRCUIT BOARD
IC201
AN6680
IC101
AN6675
RLY 1
ARM SW S4
GRY
GRY
ORG
YEL
BLK
RED
14
15

1	2.2V	7	0 V	13	5 V	19	6.5V
2	2 V	8	0 V	14	2.7V	20	0.4V
3	2 V	9	9.6V	15	5 V	21	1.6V
4	1.8V	10	9 V	16	5 V	22	2.8V
5	2.5V	11	0.12V	17	4.8V	23	2.8V
6	3.3V	12	0 V	18	0 V	24	2.8V

1	5.6V	7	0 V	13	7 V	19	12V
2	5.6V	8	4.2V	14	6.8V	20	12V
3	0 V	9	0 V	15	7 V	21	12V
4	2.6V	10	6.8V	16	0 V	22	1.6V
5	4.8V	11	7 V	17	7 V	23	12V
6	5 V	12	6.8V	18	12V	24	5.6V

■ EXPLODED VIEWS (CABINET and CHASSIS)



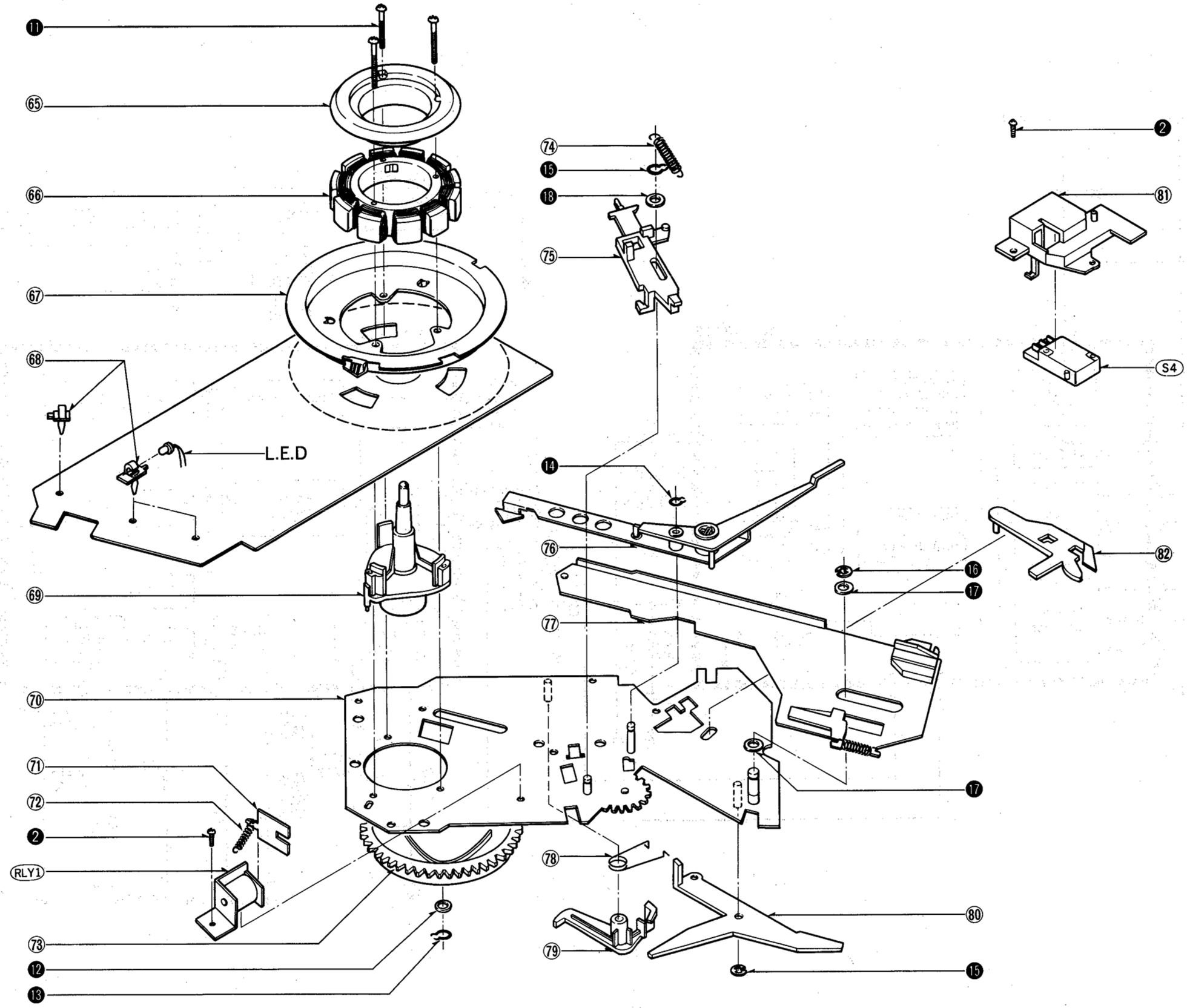
■ REPLACEMENT PARTS LIST

Notes: 1. Part numbers are indicated on most mechanical parts.
Please use this part number for parts orders.
2. ⚠ indicates that only parts specified by the manufacture be used for safety.
3. SL-Q2 (XA) → [XA] , SL-Q2 (XAL) → [XAL]

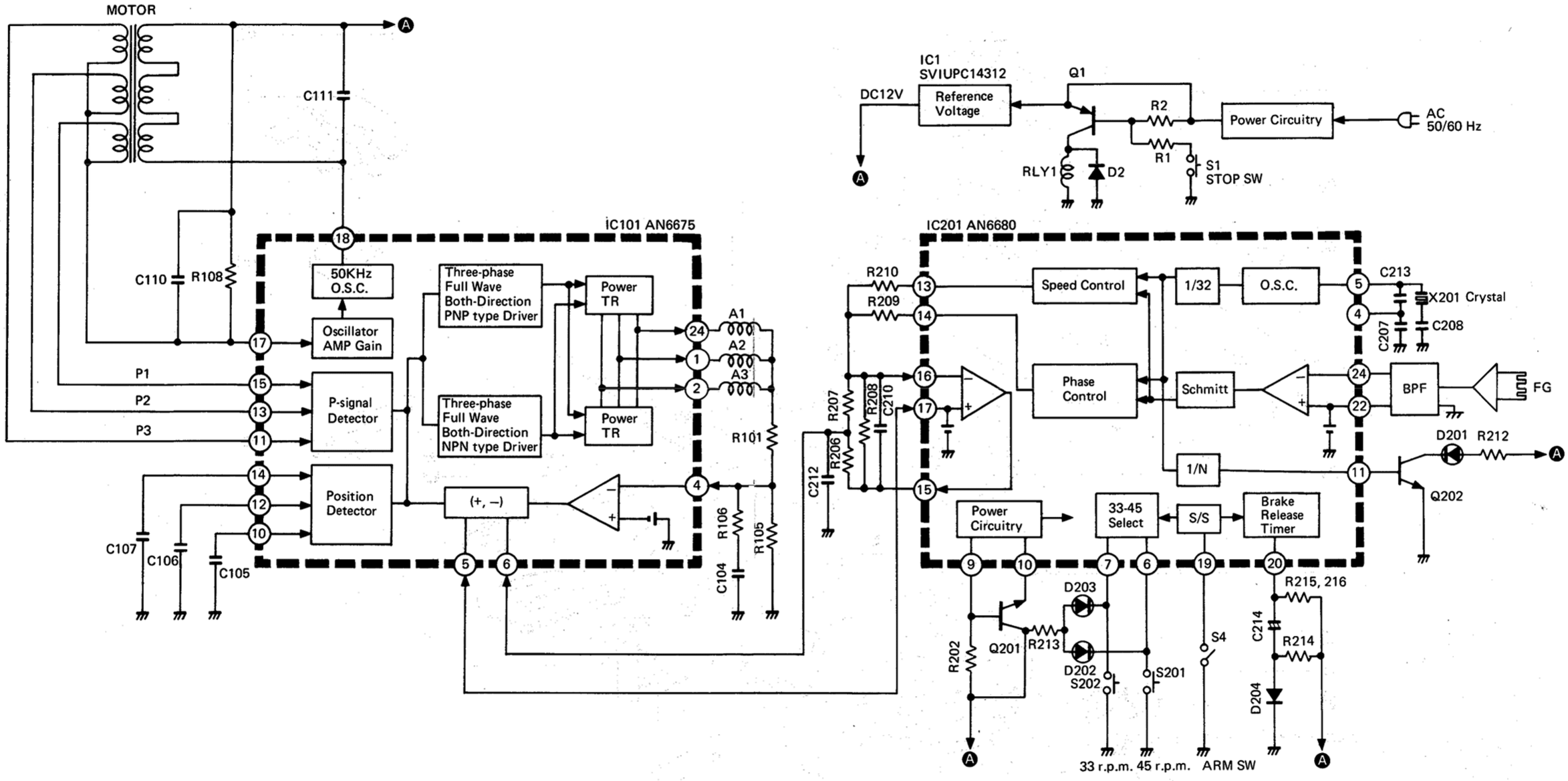
SL-Q2 (XGE) → [XGE] , SL-Q2 (E) → [E]
SL-Q2 (XG) → [XG] , SL-Q2 (XGF) → [XGF]
SL-Q2 (XGB) → [XGB], SL-Q2K (E) → [KE]
SL-Q2K (XG) → [KXG]

Ref. No.		Part No.	Part Name & Description
CABINET and CHASSIS PARTS			
1		SFADQ20-01E	Dust Cover
2		SFTG320-01	Turntable Mat
3 [XA, XAL, XGE, E, XG, XGF, XGB]		SFTEQ20-01A	Turntable
3 [KE, KXG]		SFTEQ20-P	Turntable
4		SFUMQ20-06	Cover, Turntable
5		SFAUQ20-01	Bottom Board
6		SFQC200-02	Spring, Audio Insulator (Front)
7		SFGAQ20-01E	Audio Insulator
8		SFQC320-01	Spring, Audio Insulator (Rear)
9		SFKKQ20-01	Panel
10		SFKKQ20-02	Supporter, Pitch Control
11		SFGCQ20-01	Cushion, Power Transformer
12		SFUPQ20-01	Supporter, Power Transformer
13 [XA, XAL XGE, E, XG, XGF, XGB]		SFACQ20-01	Cabinet
13 [KE, KXG]		SFACQ20P01	Cabinet
14		SFUMQ20-05	Cover, Neon
15		SFKTQ20-01	Knob, Stop SW
16		SFUMQ20-01	Supporter, Stop SW & Pitch Control
17		SFKTQ20-04	Supporter, Stop SW
18		SFKTQ20-02	Knob, Pitch Control
19		SFATQ20-01A	Hinge
20 [XA, XG, XGF, XGB]		SFNNQ20X01	Name Plate
20 [XAL, XGE]		SFNNQ20G01	Name Plate
20 [E]		SFNNQ20S01	Name Plate
20 [KE]		SFNNQ2KS01	Name Plate
20 [KXG]		SFNNQ2KP01	Name Plate
21		SFUMQ20-02	Supporter, Power SW
22		SFKTQ20-03	Knob, Power SW
23 [XA, E, XG, XGF, XGB, KE, KXG]		RJA23ZC-K	AC Cord
23 [XAL]		QFC1208M	AC Cord
23 [XGE]		RJA45ZC-K	AC Cord
24 [XA, XGE, E, KE, XG, KXG, XGF, XGB]		SFUMQ20-04	Clamper, AC Cord
24 [XAL]		SFUMQ20-03	Clamper, AC Cord
25		SFUMQ20-04	Clamper, Phono Cord
26		SFDH212-01	Phono Cord
27		SFEL028-01E	Ground Wire
28		SFUPQ20-07	Plate, Shield
29		SJE41	Supporter, Power Transformer Read
30		SFGCQ20X01	Power Transformer
TONE ARM and ARM BASE			
35		SFPCC31001K	Head Shell
36		SFPWG51101K	Balance Weight
37 [XA, XAL, XGE, E, XG, XGF, XGB]		SFPAM51101K	Tone Arm
37 [KE, KXG]		SFPAM5110ZK	Tone Arm
38		SFPRT51001K	Lift Ass'y
39 [XA, XAL, XGE, E, XG, XGF, XGB]		SFGK132-01	Cap, Rubber
39 [KE, KXG]		SFGK133S01	Cap, Rubber
40		SFQA829-03	Spring, Lift Ass'y
41		SFKU212-01E	Arm Rest
42		SFPAB13202	Knob, Arm Lift
43		SFPJK13101	Knob, Anti-skate Force Control
44 [XA, XAL XGE, E, XG XGF, XGB]		SFKPQ20-01	Arm Base
44 [KE, KXG]		SFKPQ20P01	Arm Base
45		SFPGM13204	Supporter, Arm Lift
46		SFXJQ20-03E	Plate, Anti-skate Force Control
47		SFPJL00101K	Lever, Cueing
48		SFUPQ20-02A	Bracket, Lift Ass'y
49		SFUPQ20-03A	Tone Arm Fixing Plate Ass'y
50		SFPSP00101	Spring, Anti-skate Force Control
51		EPC207C	Cartridge
52		EPS207ED	Stylus
AUTOMATIC MECHANISM ASS'Y			
65		SFMGQ20-01	Cover, Stater Frame Ass'y
66		SFMG520-31A	Stater Frame
67		SFMZQ20-06E	FG Detector Coil Ass'y
68		SFUMQ20-09	Spacer, LED
69		SFMZQ20-01A	Shaft, State Frame Ass'y
70		SFUKQ20-11E	Plate, Automatic Mechanism
71		SFUPQ20-11E	Support, Relay
72		SFQHQ20-11	Spring, Support
73		SFUG190-22E	Main Gear Ass'y
74		SFQHQ20-12	Spring, Stop SW Plate
75		SFUMQ20-15	Plate, Stop SW
76		SFUCQ20-11E	Actuating Plate Ass'y
77		SFUBQ20-11A	Operating Plate Ass'y
78		SFQS222-11	Spring, Support
79		SFUM222-11	Support, Gear Setting
80		SFUMQ20-17	Lever, Switch
81		SFUMQ20-18	Cover, Switch
82		SFUMQ20-16	Support, Switch
SCREWS, WASHERS and CIRCLIPS			
❶		XTV3+8BFZ	Screw
❷		XTV3+8BFN	Screw
❸		SFXGQ20-01	Screw
❹		XSN3+12S	Screw
❺		XWA3B	Washer
❻		XTS3+10BFZ	Screw
❼		XWG3FZ	Washer
❽		SFPEV13204	Screw
❾		XTV3+10BFN	Screw
❿		SFXG829-1	Screw
⓫		SFXGQ20-02	Screw
⓬		SFXW890B01	Washer
⓭		XUB6FY	Circlip
⓮		XUB4FY	Circlip
⓯		XUC3FT	Circlip
⓰		XUC5FT	Circlip
⓱		SFXW130-13	Washer
⓲		XWE4A10BW	Washer
⓳		XYE3+EJ10	Screw
⓴		SFCZV8801	Screw
㉑		SFPEW9601	Washer
㉒		SFPEN3302	Nut
ACCESSORIES			
A1 [XA, XAL, XG, KXG, XGF, XGB]		SFNUQ20X01	Instruction Book
A1 [XGE]		SFNUQ20G01	Instruction Book
A1 [E, KE]		SFNUQ20S01	Instruction Book
A2		SFWE212-01	Adaptor, 45 r.p.m
A3 [XGE, XGF] only		SFPEN3302	Nut, Cartridge
A4 [XGE, XGF] only		SFPEW9601	Washer, Head Shell
A5 [XGE, XGF] only		SFCZV8801	Screw, Cartridge
A6 [XGE, XGF] only		SFPEV9801	Screw, Cartridge
A7 [XGE, XGF] only		SFYF05A06	Polyethylene Bag
A8 [XGE, XGF] only		SFKO135-01	Overhang Gauge
A9		SFPZB3501	Shell Weight
A10		SFYF05A06	Polyethylene Bag
A11		SFDK119118	2-PIN Adaptor
PACKINGS			
P1 [XA, XAL, XGE, E, XG, XGB]		SFHPQ20M01	Carton
P1 [KE, KXG]		SFHPQ20K01	Carton
P1 [XGF]		SFHPQ20C01	Carton
P2		SFHHD20-01	Pad, Front
P3		SFHHD20-02	Pad, Rear
P4		SFHD230-01	Pad, Top
P5		SFHDD20-02	Pad, Turntable
P6		SFYH60X60	Polyethylene Cover, Turntable Unit
P7		SFHZD20-01	Polyethylene Cover, Dust Cover
P8		SFYH40X45	Polyethylene Cover, Turntable
P9		SFHSD20-01	Spacer, Tone Arm

■ EXPLODED VIEWS (AUTOMATIC MECHANISM ASS'Y)



■ BLOCK DIAGRAM



Printed in Japan
7905-7800Ⓐ S.H.