ORDER NO. SD7907-1593

Service Manual

SL-1800MK2

Turntable System

SL-1800MK2

(M), (MC)



- The model SL-1800MK2 (M) is available in U.S.A. only.
- The model SL-1800MK2 (MC) is available in Canada only.

SPECIFICATIONS

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

General

Power supply:	120 V, AC. 50 or 60 Hz
Power consumption:	15 W
Dimensions: (WxHxD)	45.3 x 14.9 x 39.9 cm (17-27/32" x 5-7/8" x 15-45/64")
Weight:	9.8 kg (21.6 lb.)

Turntable section

Type:	Quartz direct drive Manual turntable
Drive method:	Direct drive
Motor:	Brushless DC motor
Turntable platter:	Aluminum diecast Diameter 33.2 cm (13-5/64") Weight 2 kg (4.4 lb.)
Turntable speeds:	33-1/3 rpm and 45 rpm
Pitch control:	±6% range
Starting torque:	1.5 kg·cm (1.3 lb·in)
Build-up characteristics:	0.7 s. (90° rotation) to 33-1/3 rpm
Braking system:	Electronic brake
Speed change due to load torque:	0% within 1.0 kg·cm (0.87 lb·in)
Wow and flutter:	0.01% WRMS* 0.025% WRMS (JIS C5521) ±0.035% peak (IEC 98A Weighted)

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

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

Tonearm section

Type:	Universal
Effective length:	230 mm (9-1/16")
Arm height adjustment range:	0–6 mm
Overhang:	15 mm (19/32")
Effective mass:	12 g (without cartridge)
Tracking error angle:	Within 2°32′ at the outer groove of 30 cm (12") record Within 0°32′ at the inner groove of 30cm (12") record
Offset angle:	22°
Friction:	Less than 7 mg (lateral, vertical)
Stylus pressure Adjustment range:	0–2.5 g
Applicable cartridge weight range:	6–10 g 13.5–17.5 g (including headshell)
(with auxiliary weight):	9.5–13 g 17–20.5 g (including headshell)
(with shell weight):	3.5–6.5 g 11–14 g (including headshell)
Headshell weight:	7.5 g

Technics

Panasonic Company
Division of Matsushita Electric
Corporation of America
One Panasonic Way, Secaucus,
New Jersey 07094

Panasonic Hawaii, Inc.
320 Waiakamilo Road, Honolulu,
Hawaii 96817

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

SL-1800MK2

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■ DISASSEMBLY PROCEDURE

HOW TO REMOVE MAIN BASE ASS'Y AND BOTTOM BASE ASS'Y

1. Clamp tone arm to the arm rest.
2. Remove head shell and turntable platter.
3. Close dust cover.
4. Turn unit upside down taking special care not to damage or scrach the dust cover.
5. Remove 6 screws Ⓐ of the audio insulator and 2 screws Ⓑ of the phono cord clamper as shown in fig. 1.
6. Holding the player firmly with both hands, to prevent separation of upper section (bottom base ass'y) from lower section (main base ass'y), turn it carefully upwards.
7. Remove dust cover.
8. Remove 5 screws Ⓒ of the panel cover as shown in fig. 2.
9. Remove 2 connectors Ⓓ and 2 read wires Ⓔ from power transformer as shown in fig. 3.
10. To remove the main base ass'y from the bottom base ass'y, turn cueing lever upward and move tone arm towards center of spindle. The main base ass'y can be lifted up essily. **(See fig. 4, 5 and 6.)**

HOW TO REMOVE DRIVE CIRCUIT BOARD

(Refer to 1～10.)

11. Remove 3 screws Ⓕ of the drive circuit board and 3 screws Ⓖ of the stater frame cover as shown in fig. 5.

HOW TO REMOVE STATER FRAME COIL AND F·G DETECTOR COIL

(Refer to 1～11.)

12. Disconnect 18 soldered parts Ⓗ of the stater coil and 4 soldered parts Ⓘ of the F·G detector coil as shown in fig. 7.
13. Remove 3 screws Ⓙ of the stater frame ass'y as shown in fig. 7.

HOW TO REMOVE CONTROL CIRCUIT BOARD ASS'Y

(Refer to 1～10.)

14. Remove 7 screws Ⓚ of the control circuit board ass'y as shown in fig. 6.

HOW TO REMOVE STYLUS-ILLUMINATOR LAMP

(Refer to 1～10 and 14.)

15. Remove 2 screws Ⓛ of the stylus-illuminator lamp ass'y as shown in fig. 6.
16. Remove 1 screw Ⓜ as shown in fig. 8.

HOW TO REMOVE TONE ARM AND ARM BASE ASS'Y

(Refer to 1～10.)

17. Remove 4 screws Ⓝ as shown in fig. 5.
18. Remove 2 screws Ⓞ of the phono cord p.c.b. as shown in fig. 9.
19. Remove 2 screws Ⓟ as shown in fig. 9.
20. Remove 2 screws Ⓠ of the silicon oil dumper as shown in fig. 9.
21. Remove 3 screws Ⓡ as shown in fig. 9.
22. Remove 2 screws Ⓢ of the tone arm as shown in fig. 10.

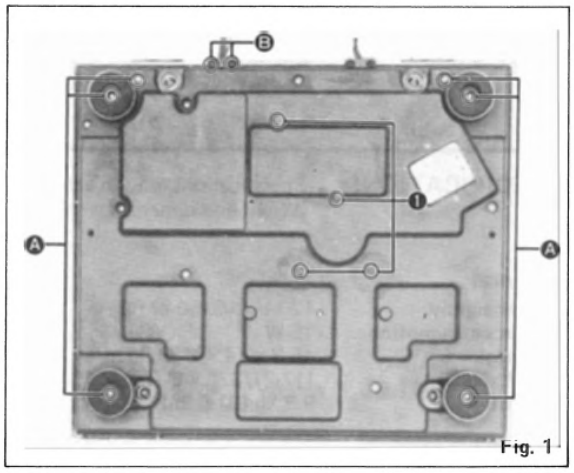


Fig. 1

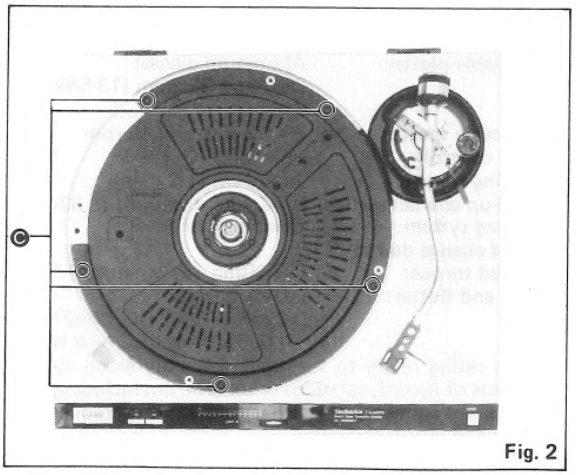


Fig. 2

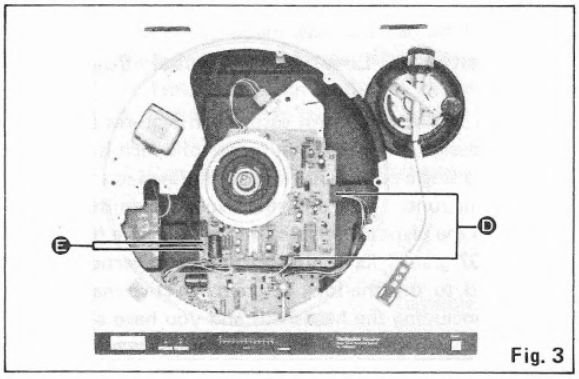
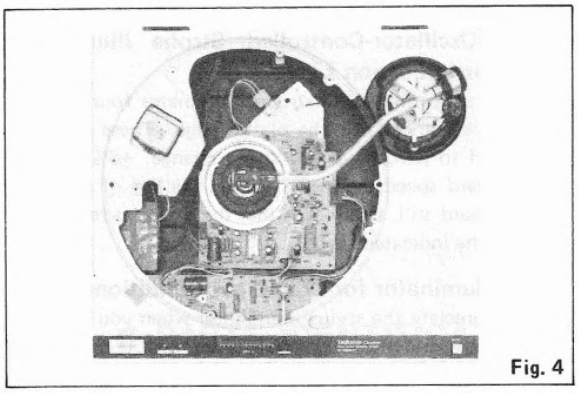


Fig. 3


Fig. 4

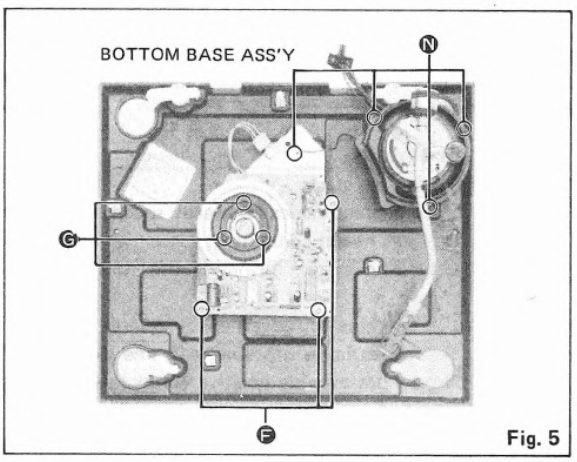


Fig. 5

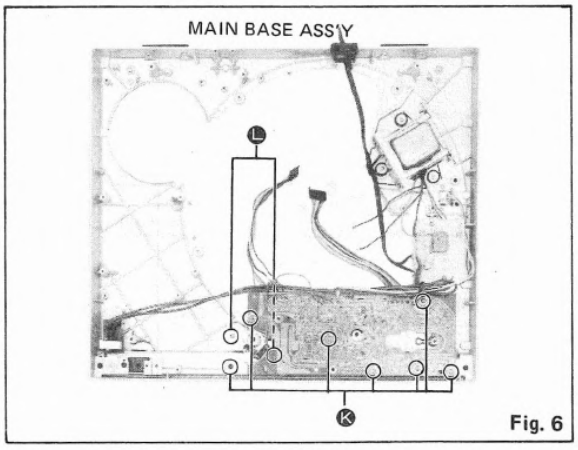


Fig. 6

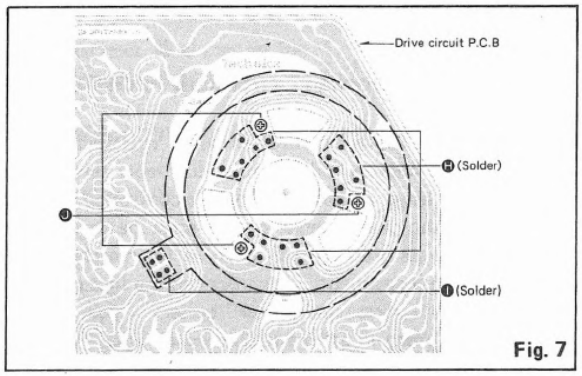


Fig. 7

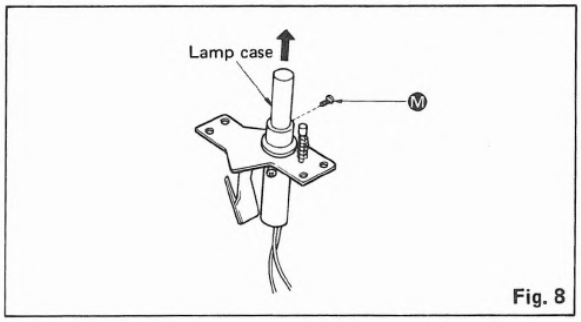


Fig. 8

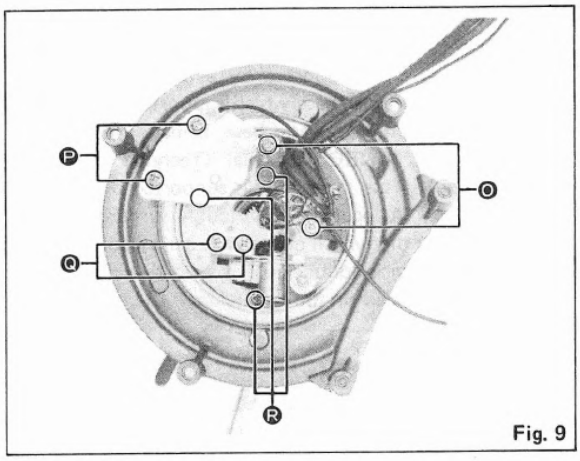


Fig. 9

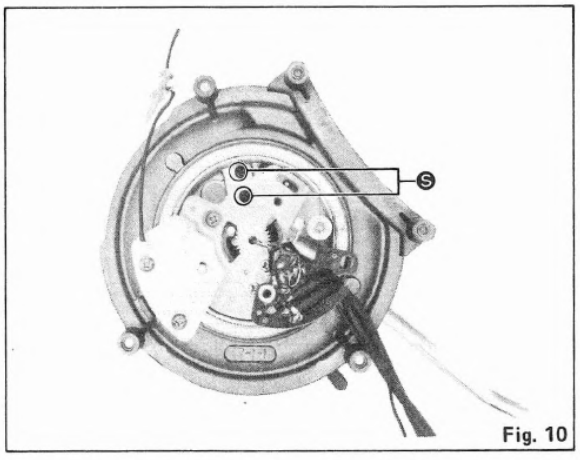


Fig. 10

■ ARM BASE ASSEMBLING PROCEDURE

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

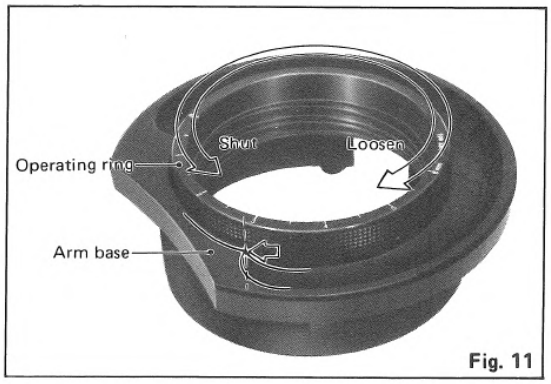
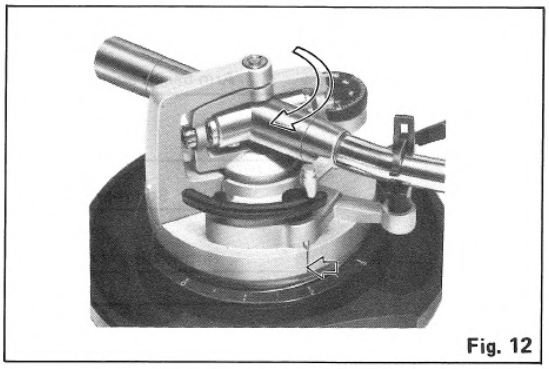
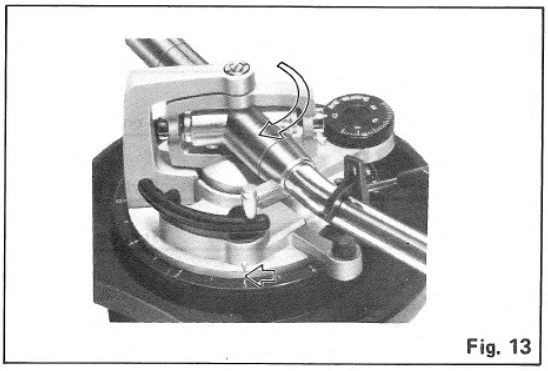


Fig. 11

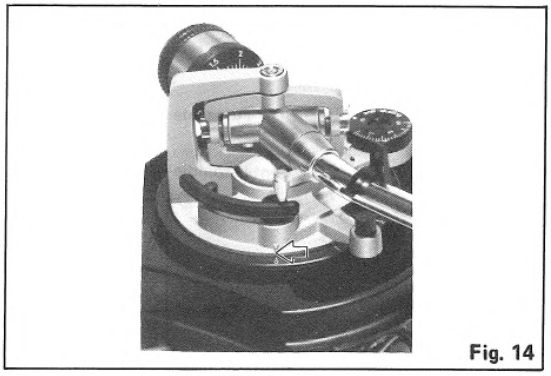
3. Hold the arm base and set the red line mark on the arm base to the scale near "2", then turn the arm base clockwise. (See Fig. 12)
   Note:
   Take care not to allow deflection of the predetermined positions of the control ring and arm base seat.

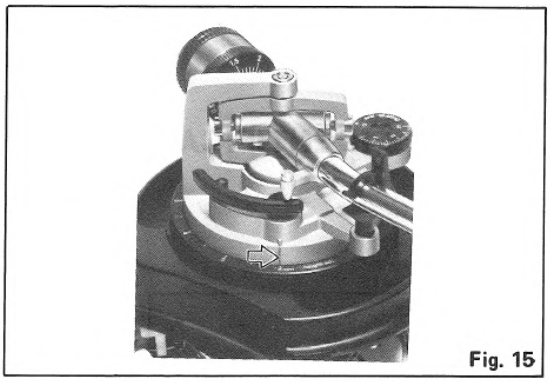

Fig. 12

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


Fig. 13

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


Fig. 14


Fig. 15

■ ADJUSTMENT OF CANCELLER SPRING POSITION

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

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

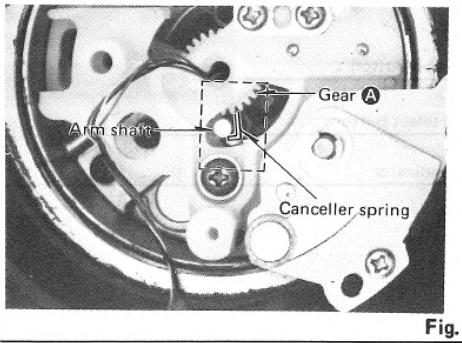


Fig. 16

How to install the drive circuit board assembly

The circuit board assembly can be detached by removing the 4 setscrews ❶ shown in Fig. 1. When installing it onto the bottom base assembly after adjustment and repair, follow the procedure mentioned below.

1. Temporarily tighten the 4 setscrews ❶. (Refer to Fig. 1.)
2. Adjust so that the center spindle is aligned to the center of the turntable provided with equal clearances ② as in Fig. 17.
3. Completely tighten the 4 setscrews ❶, taking care not to allow deflection of the center spindle.

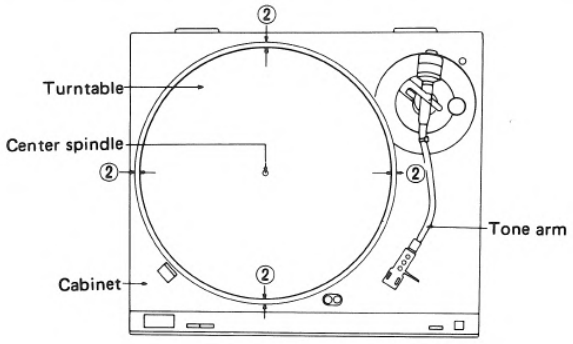


Fig. 17

■ PARTS IDENTIFICATIONS

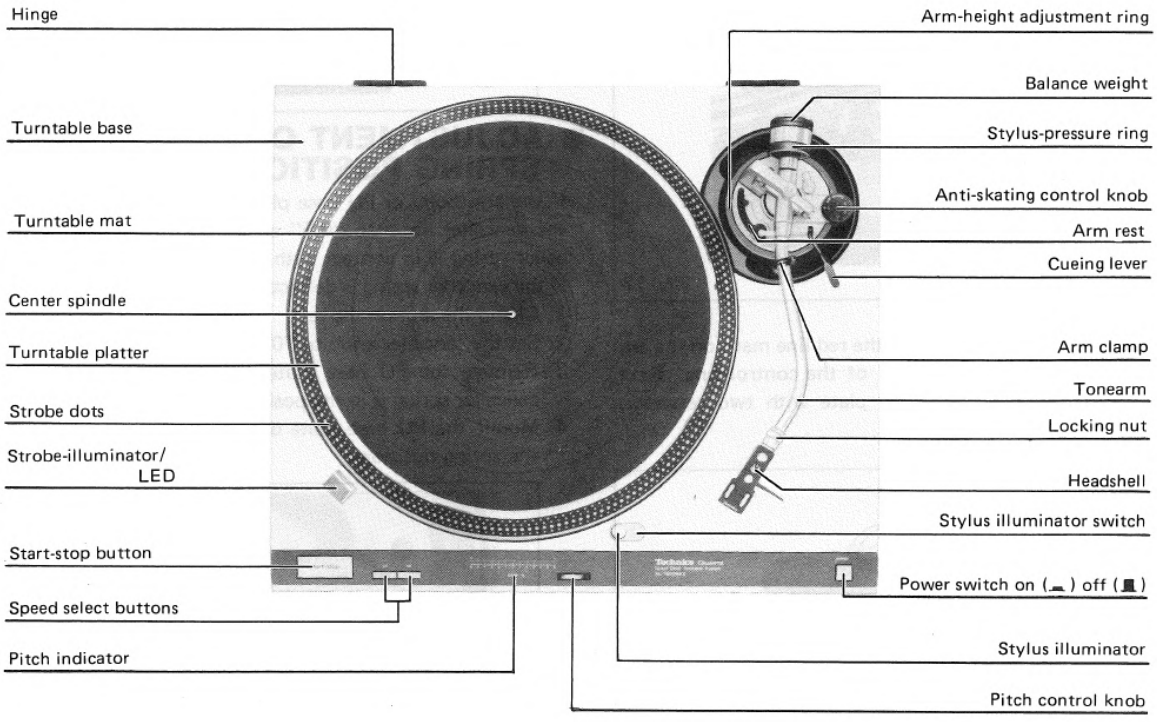


Fig. 18

■ FEATURES

Total Quartz Locked Continuous Pitch Adjustment ±6%

Quartz-phase-locked control provides rotational accuracy that is not approached by other turntable servo systems. With the large majority of quartz-controlled turntables, however, the quartz servo system must be defeated when speed changes are required (such as for matching musical pitch to an instrument). Technics was the first company to develop a "quartz synthesizer" system which maintained quartz accuracy in pitch-altered modes. This system permitted quartz-controlled speed changes in increments of 0.1%. Now, with the SL-1800MK2, pitch is variable continuously (analogically) by up to ±6%, under quartz control. Pitch changes are made by turning a knob on the front panel. As this is done, a series of thirteen LED's light to indicate percentage of pitch change—plus and minus 1, 2, 3, 4, 5, and 6%, and exactly on speed. In any case, the unsurpassed accuracy of the quartz system remains in effect.

Double Isolated Suspension System with TNRC Inner Base

Acoustic feedback is a potential problem whenever the turntable is located in the same room as the speakers, as is the case in nearly all home systems. Technics developed a double isolated suspension system to drastically reduce the potential for feedback. The outer base is made from diecast aluminum and is supported by a carefully tuned set of isolators. The inner base which supports the all-important platter, motor and tonearm base, is made from our heavy, anti-resonant "TNRC" material (Technics Non-Resonant Compound). This inner base is supported by a second set of isolators. Altogether, this double suspension makes it very unlikely that you'll ever encounter a feedback problem. Even the platter is doubledamped, with a specially fabricated rubber mat placed on the underside of the turntable as well as the top.

All Front-Panel Controls

Operational convenience is enhanced by putting all controls, even the cueing control and LED display, in-line on the front panel. The control buttons are precision-designed to require a moderate but definite amount of pressure for activation.

This design gives a sense of positive control and minimizes the possibility of its accidental activation.

High-Sensitivity, Low Mass Gimbal Suspension Tonearm

The highly sensitive tonearm suspension features a genuine "gimbal" design, the rotational center of which is precisely defined at a single point. Bearings are finished to a tolerance of ±0.5 microns. This and the close-proximity of the bearings to the pivot center, result in an effective friction of 7 mg (0.007 grams) for both horizontal and vertical movement. Add to this the low, 12-gram effective mass of the tonearm (including the headshell) and you have a tonearm compatible with the wide range of compliances found in today's cartridges.

Quartz Oscillator-Controlled Strobe Illuminator with Four Indication Lines.

A quartz controlled LED strobe illuminates four lines of stroboscope markings on the platter edge. These markings correspond to percentages of speed change: +6%, +3.3%, 0% (standard speed) and −3%. When the line of markings seem to stand still, this means that the platter is rotating at precisely the indicated speed.

Stylus Illuminator for Low-Light Conditions

You'll appreciate the stylus illuminator when you are using the turntable under low-light conditions, or if it is placed in a rack. The illuminator can be hidden in the turntable base. Should you need it, simply push a button and it will pop up gently and cast a beam of light across the disc in the area traversed by the tonearm. You can then clearly see the spaces between the selections on the record, and cue the arm exactly where you want it. The illuminator can then be pushed back down into the base.

Other Fine Features

- High torque for fast starts
- Excellent load characteristics for steady speed
- Helicoid tonearm height adjustment
- Electronic braking system brings platter to a quick stop
- Prism strobe illuminator, governed by quartz oscillator rather than potentially unstable AC line frequency.
- Soft-touch switches provide positive control while minimizing chances of accidental operation.
- Technics integral rotor/platter structure with full-cycle detection FG.

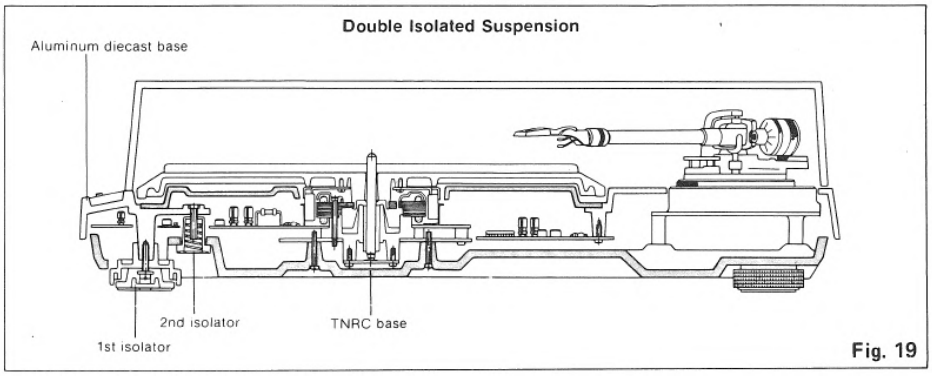
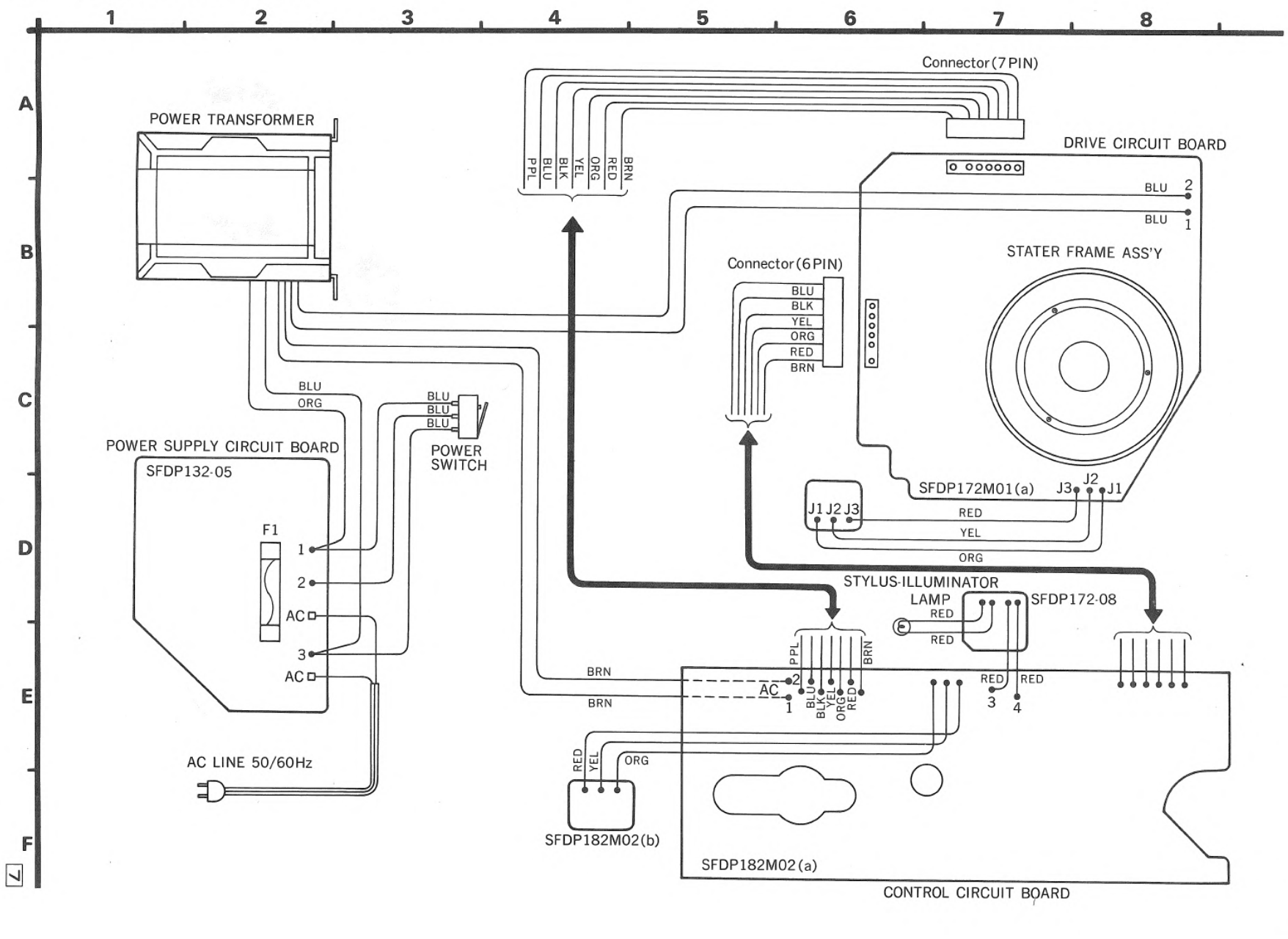


Fig. 19

■ WIRING CONNECTION



SL-1800MK2

■ ADJUSTMENTS

Pitch control (fine adjustment of speed) (See Figs. 20 and 21.)

As soon as power is applied to the unit by depressing the power switch (⏻), the LED lamp lights up indicating that the unit is on.

When the pitch control knob is clicked in at the position "0", the regular speed (33-1/3 or 45 rpm) is held, indicating the condition with the green LED lamp.

However, the pitch control feature of this unit allows speed variation in a range of 0~±6%. Proper speed variation can be selected while watching the red LED lamp and the scale reading on the indicator. Please note that the scale reading on the indicator shows only an approximate percentage. If LED lamps light up at two locations (e.g. at positions [2] and [3]), it shows that pitch variation is in a range of 2~3%.

When the strobe dots in 4 stages marked at the peripheral edge of the turntable appear to be stationary, variation of individual pitches is shown. **(See Fig. 21.)**

Note:

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

For fine adjustment of the turntable speed, be sure to effect the adjustment according to the LED illumination.

The LED illumination is not synchronized with fluorescent lamps.

Adjustment of arm-lift height (See Figs. 22 and 23.)

The arm-lift height (distance between the stylus tip and record surface when cueing lever is raised) has been adjusted at the factory before shipping to approximately 8-13 mm. If the clearance becomes too narrow or too wide, turn the adjustment screw clockwise or counterclockwise, while pushing the arm lift down.

Clockwise rotation

–distance between the record and stylus tip is decreased.

Counterclockwise rotation

–distance between the record and stylus tip is increased.

Note:

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

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

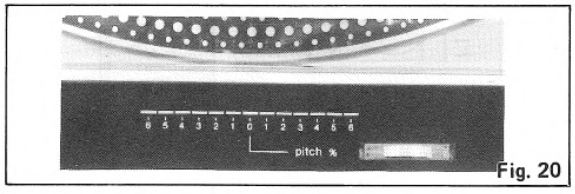


Fig. 20

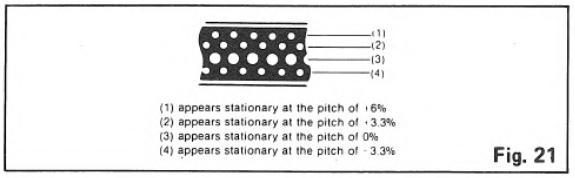


Fig. 21

Adjustment of the tonearm height (See Fig. 24.)

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

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

For example, if the cartridge height is 17.5 mm, the arm-height adjust ring should be positioned at the intermediate location between 2 and 3 on the scale. **(See Fig. 24.)**

Caution:

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

Lubrication (See Fig. 25.)

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.)**

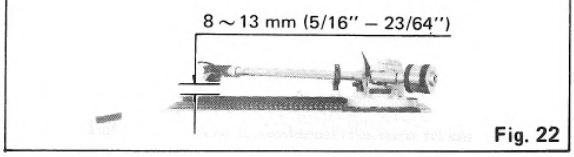


Fig. 22

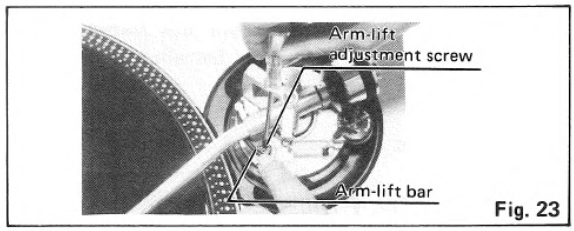


Fig. 23

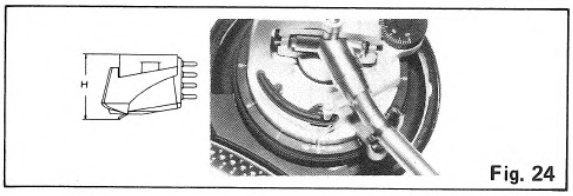


Fig. 24

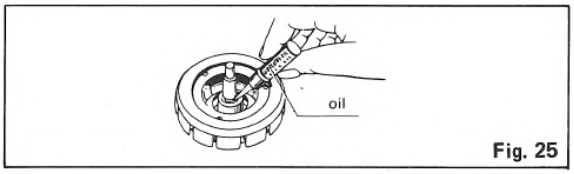
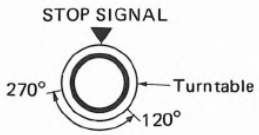


Fig. 25

■ ADJUSTMENTS (Electrical)

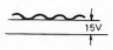
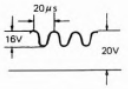
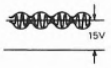
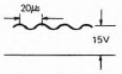
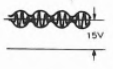
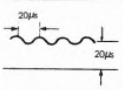
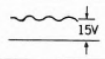
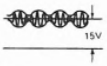
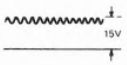
Adjustments (Electrical)

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

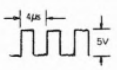
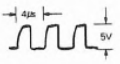
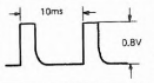
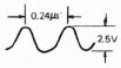
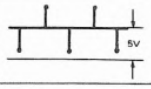
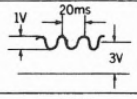
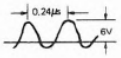
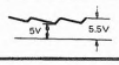
	Adjustment	Connection Points	Adjustment Point	Adjustment Method
A	Adjustment of pitch control ±0% (PITCH)	Frequency counter ⊕ —— TP27 ⊖ —— GROUND	VR301	1. Pitch control switch to center position. 2. Adjust VR301 for 262.08 kHz ±0.05 kHz of frequency.
B	Adjustment of pitch control frequency (GAIN)	Frequency counter ⊕ —— TP27 ⊖ —— GROUND	VR425	1. Adjust pitch control switch for 269,94 kHz of frequency. 2. Adjustment VR425 so that the LED (Pitch indicator plus 3%) lights up.
C	Braking adjustment (BRAKE)	—	VR201	Adjust VR201 for complete stop within 120°~270° after stop signal initiated. (Turntable becomes free a few seconds after stop) 

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

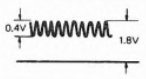
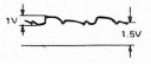
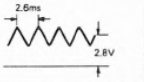
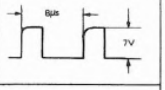
IC101 (AN6675)

	Start	Stop		Start	Stop		Start	Stop
①	2V	2V	⑫		15V	⑱	Same as at right	
②	2V	2V						
③	0V	0V						
④	5V	5V	⑬					
⑤	5V	5V				⑲	20V	20V
⑥	5V	6.6V				⑳	20V	20V
⑦	0V	0V	⑭	15V	15V	㉑	20V	20V
⑧	5V	5V	⑮			㉒	0.2V	0.2V
⑨	0V	0V				㉓	20V	20V
⑩		15V				㉔	1.7V	1.7V
			⑯	0V	0V			
⑪			⑰	15V	15V			

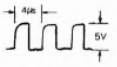
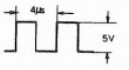
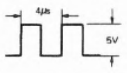
IC201 (AN6680)

	Start	Stop		Start	Stop		Start	Stop
①	2.5V	2.5V	⑧	0V	0V	⑯	5V	2.5V
②	Same as at right		⑨	9.8V	9.8V	⑰	5V	5V
			⑩	10V	10V	⑱	0V	0V
③	Same as at right		⑪	Same as at right		⑲	7.5V	0V
						⑳	0V	5V
						㉑	1.5V	0V
			⑫	0V	0V	㉒	3V	3V
④	Same as at right		⑬		0.2V	㉓		3V
⑤	Same as at right		⑭			㉔	2.8V	2.8V
⑥	3.4V	3.4V	⑮		8V			
⑦	0V	0V						

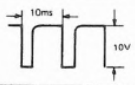
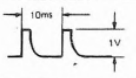
IC301 (AN6682)

	Start	Stop		Start	Stop		Start	Stop
①	Same as at right		④	Same as at right		⑧	Same as at right	
②	Same as at right		⑤	0V	0V	⑨	9V	9V
			⑥	3.9V	3.9V			
③	Same as at right		⑦	Same as at right				

IC302 (SVITC4011BP)

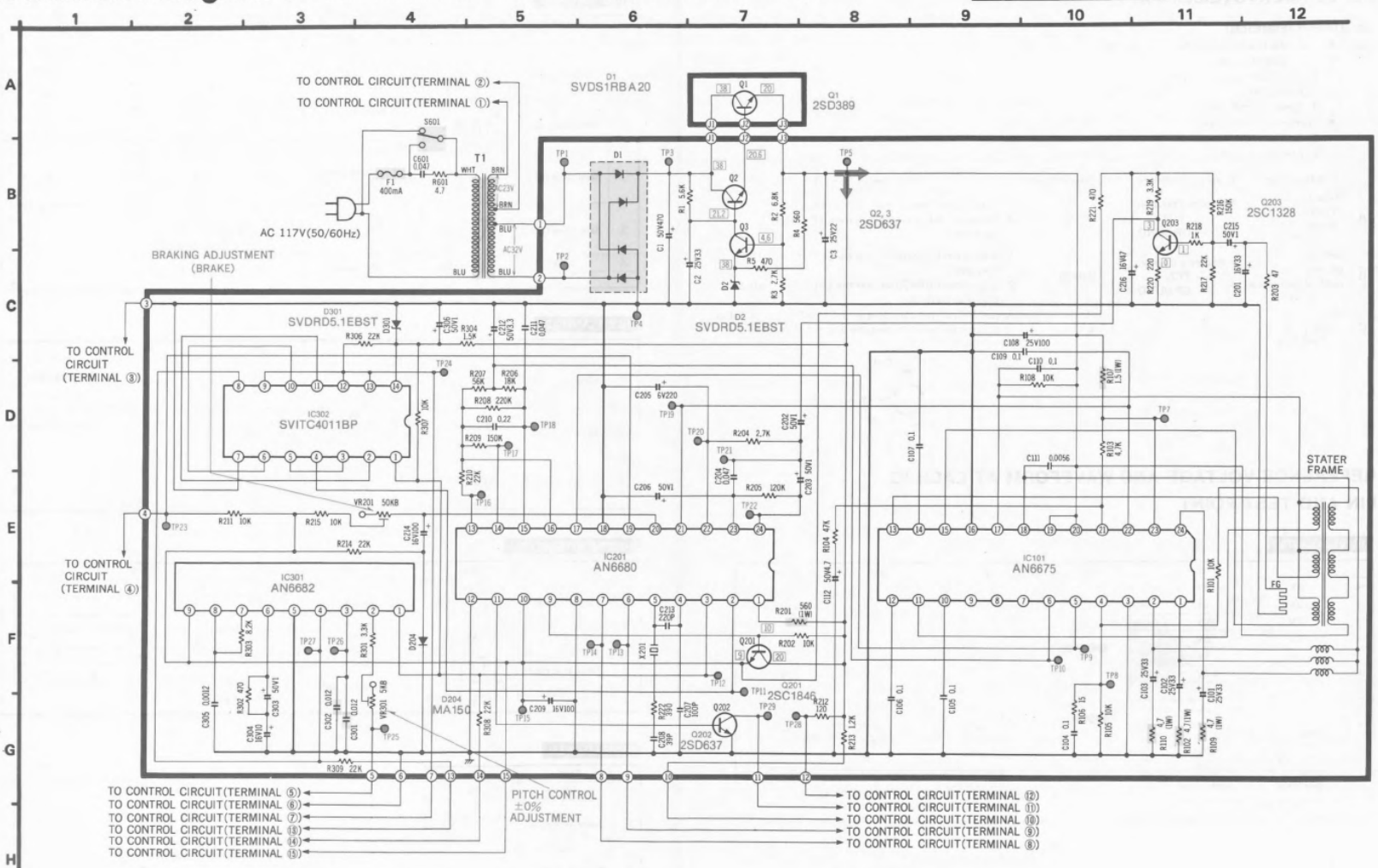
	Start	Stop		Start	Stop		Start	Stop
①	Same as at right		⑤	Same as at right		⑨	5V	5V
						⑩	5V	5V
						⑪	5V	5V
②	5V	5V	⑥	5V	5V	⑫	0.6V	0.6V
③	Same as at right		⑦	0V	0V	⑬	0.6V	0.6V
			⑧	Same as at right		⑭	5V	5V
④	5V	5V						

Q202 (2SD637)

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

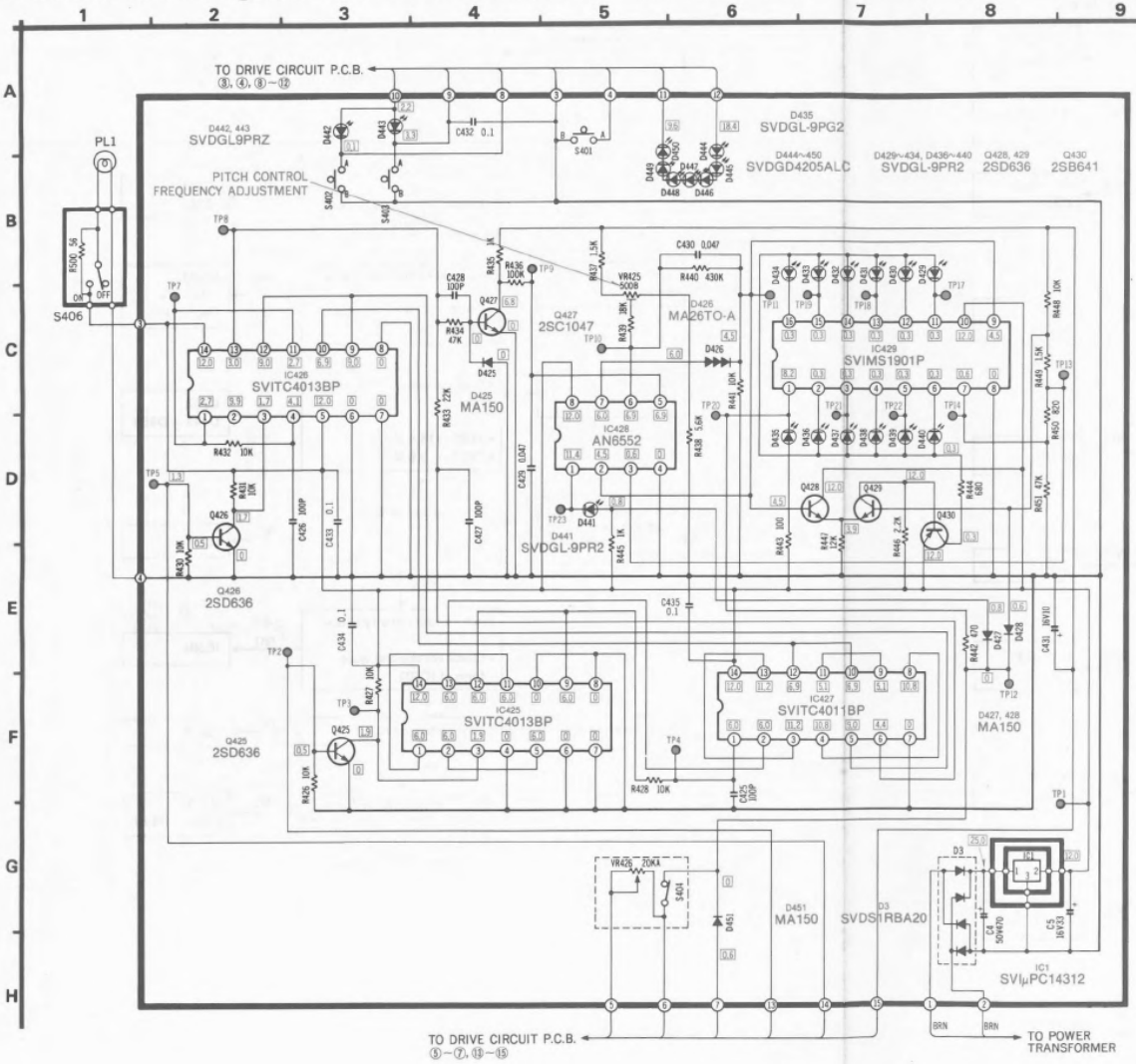
Schematic Diagram (This schematic diagram may be at any time with the development of new technology.)

DRIVE CIRCUIT BOARD



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

CONTROL CIRCUIT BOARD



NOTES:

1. **S401:** Start/Stop switch in **"OFF"** position. (not-push condition)
2. **S402:** Speed selector switch (33-1/3 r.p.m.) in **"ON"** position. (push condition)
3. **S403:** Speed selector switch (45 r.p.m.) in **"OFF"** position. (not-push condition)
4. **S405:** Pitch control switch in **"ON"** position. (Center position)
5. **S406:** Stylus-illuminator switch in **"OFF"** position.
6. **S601:** Power switch in **"ON"** position.
7. The drive circuit IC voltage and wave form are not indicated in side the schematic diagram.
   So, refer to the voltage and wave form of each IC terminal.
8. Indicated voltage values are the standard values for the unit measured by DC electronic circuit tester (high impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

■ TERMINAL GUIDE OF TRANSISTOR AND IC

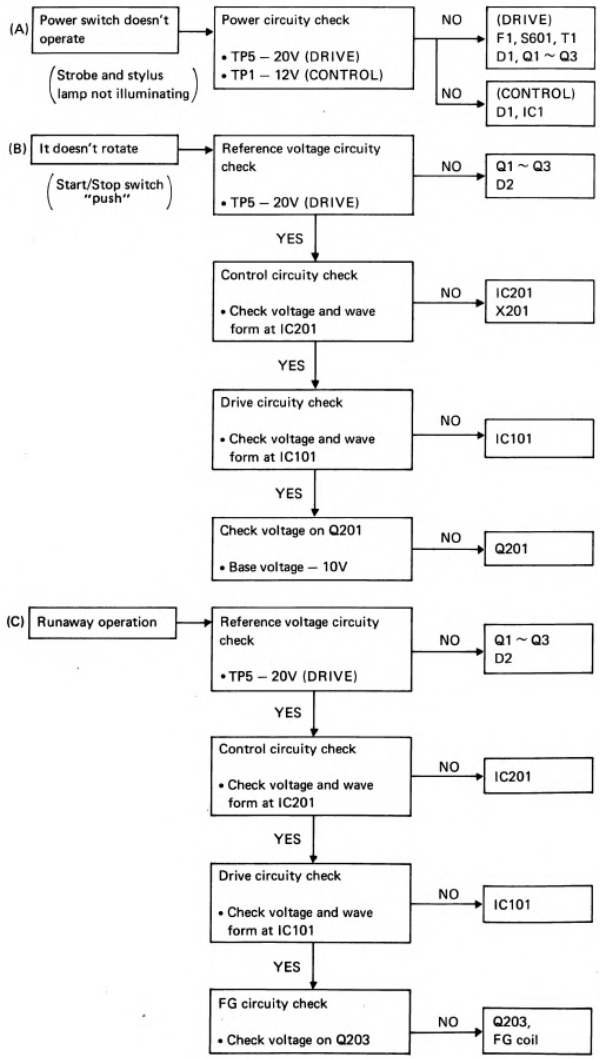
SVIμPC14312	AN6675	AN6680
AN6682	SVITC4011BP	SVITC4013BP
AN6552	SVIMSM1901P	2SD389
2SD637, 2SD638, 2SD636, 2SB641, 2SB643	2SC1846	2SC1328, 2SC1047

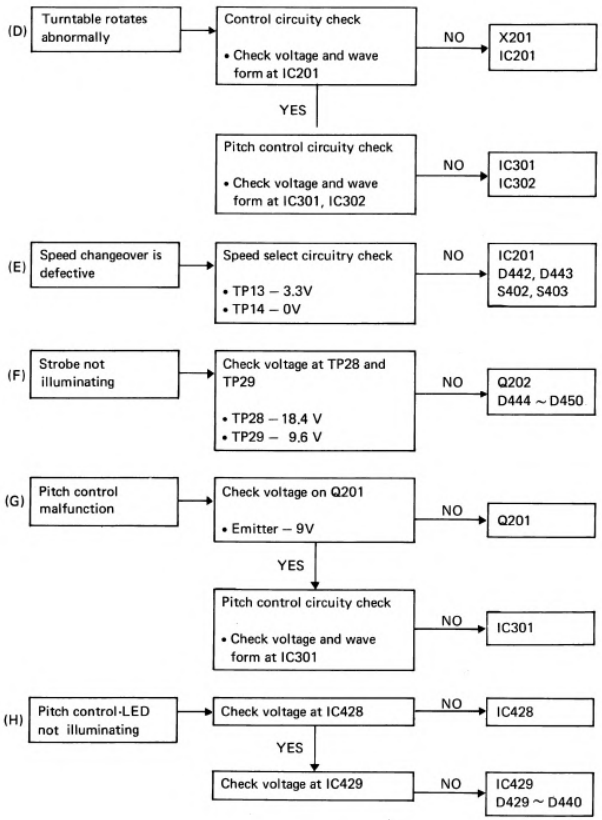
IMPORTANT SAFETY NOTICE

THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR SAFETY.
WHEN SERVICING IT IS ESSENTIAL THAT ONLY MANUFACTURER SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

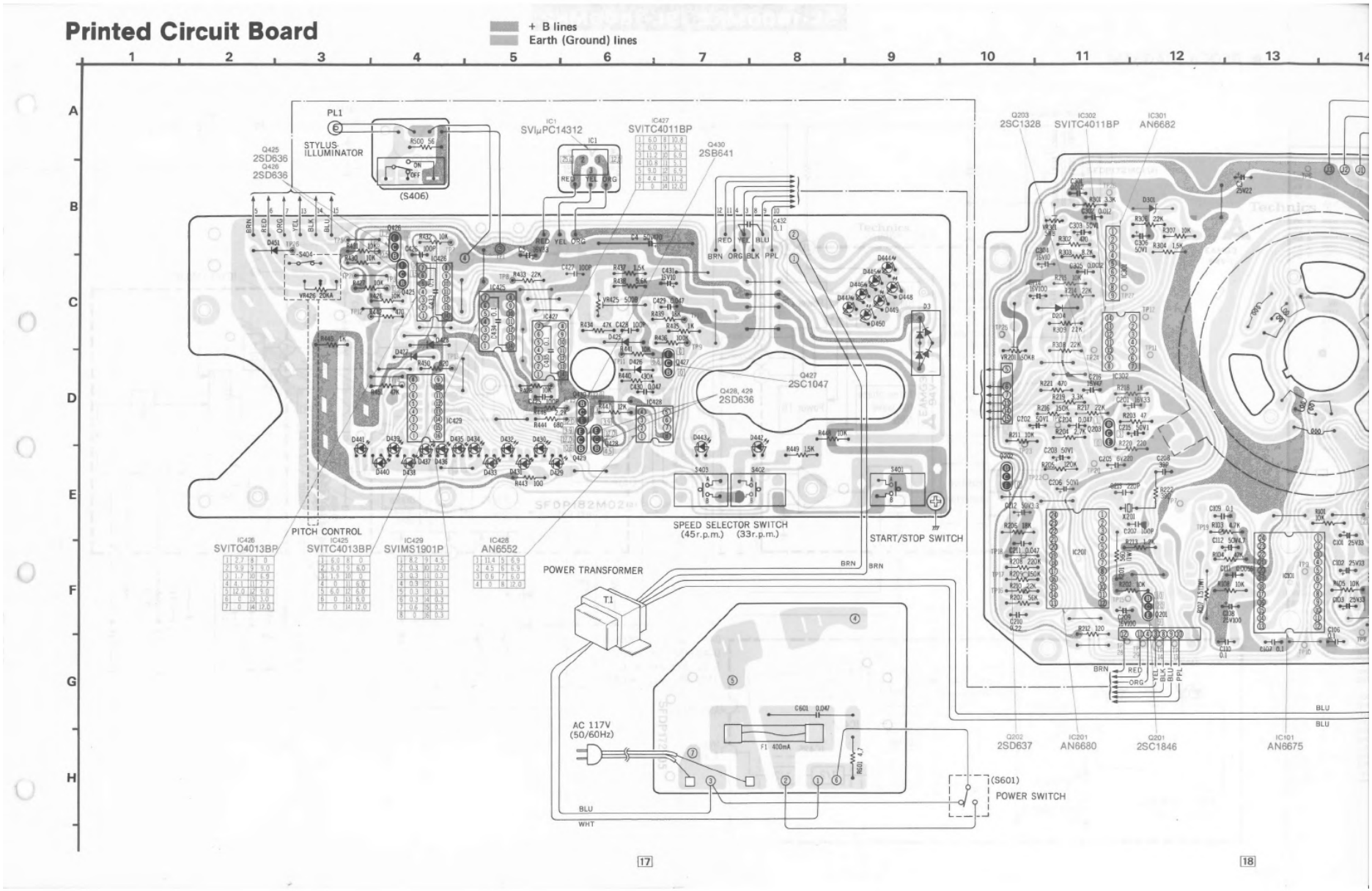
■ TROUBLE SHOOTING

• DRIVE → Drive circuit board
• CONTROL → Control circuit board

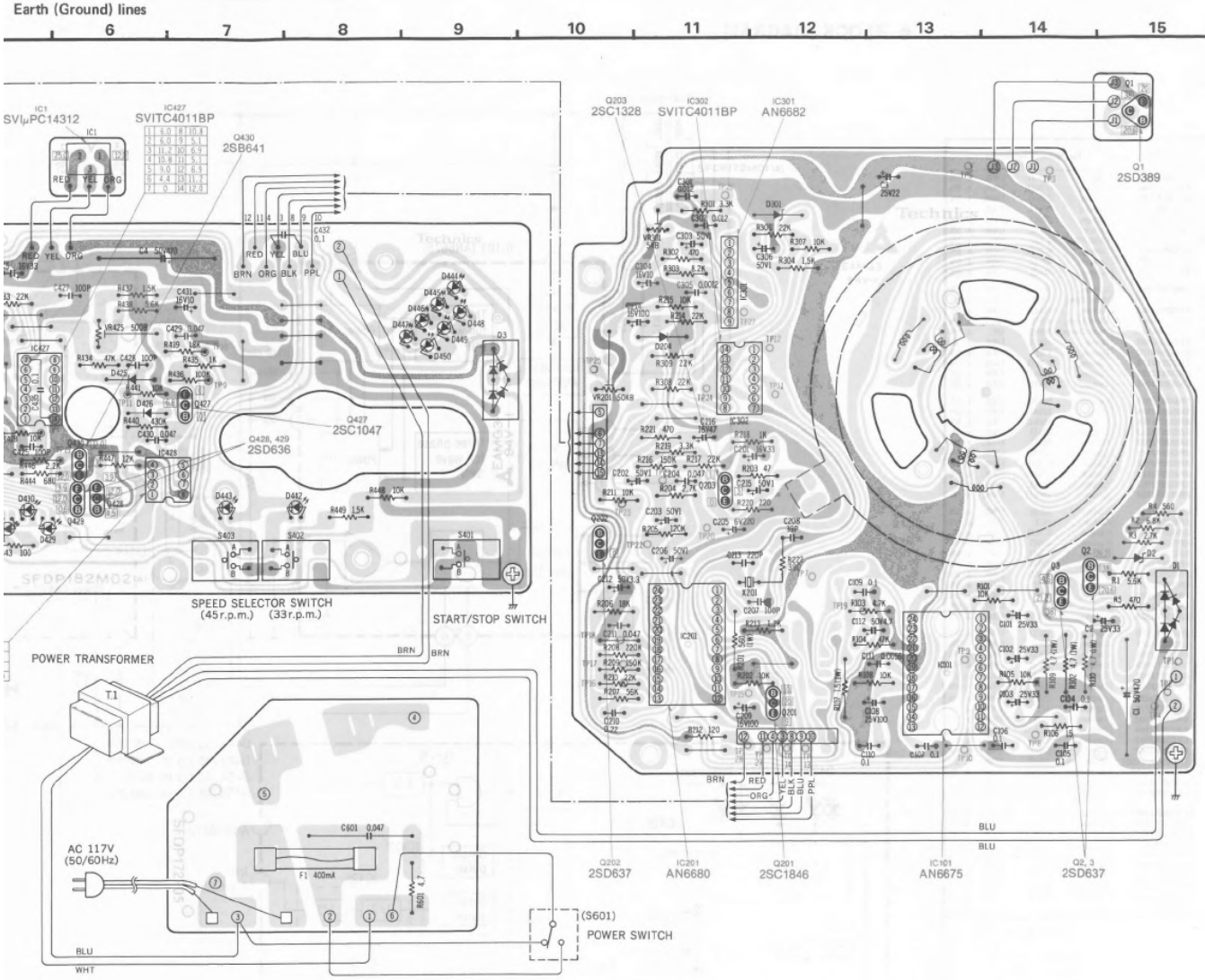




Printed Circuit Board



+ B lines
Earth (Ground) lines



■ 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 manufacturer be used for safety.
3. SL-1800MK2 (M)⟶ [M],
SL-1800MK2 (MC)⟶ [MC]

Ref. No.		Part No.	Part Name & Description		
CAPACITORS					
C1		**ECEB1HS471**	Electrolytic,	470μF,	50V
C2		**ECEA1VS330**	Electrolytic,	33μF,	35V
C3		**ECEA1ES220**	Electrolytic,	22μF,	25V
C4		**ECEB1HS471**	Electrolytic,	470μF,	50V
C5		**ECEA1ES101**	Electrolytic,	100μF,	25V
C101, 102		**ECEA1VS330**	Electrolytic,	33μF,	35V
C103		**ECEA1VS330**	Electrolytic,	33μF,	35V
C104, 105		ECQM1H104KS	Polyester,	0.1μF,	50V, ±10%
C106, 107		ECQM1H104KS	Polyester,	0.1μF,	50V, ±10%
C108		**ECEA1ES101**	Electrolytic,	100μF,	25V
C109, 110		ECQM1H104KS	Polyester,	0.1μF,	50V, ±10%
C111		ECQM1H562KZ	Polyester,	0.0056μF,	50V, ±10%
C112		**ECEA1JS4R7**	Electrolytic,	4.7μF,	63V
C201		**ECEA1CS330**	Electrolytic,	33μF,	16V
C202, 203		**ECEA50Z1**	Electrolytic,	1μF,	50V
C204		ECQM1H473KZ	Polyester,	0.047μF,	50V, ±10%
C205		**ECEA1AS221**	Electrolytic,	220μF,	10V
C206		**ECEA50Z1**	Electrolytic,	1μF,	50V
C207		ECCD1H101K	Ceramic,	100pF,	50V, ±10%
C208		ECCD1H390K	Ceramic,	39pF,	50V, ±10%
C209		**ECEA1ES101**	Electrolytic,	100μF,	16V
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		**ECEA50Z1**	Electrolytic,	1μF,	50V
C216		**ECEA1ES470**	Electrolytic,	47μF,	25V
C301, 302	⚠	ECQK1123FZ	Polyester,	0.012μF,	125V, ± 1%
C303		**ECEA50Z1**	Electrolytic,	1μF,	50V
C304		**ECEA1HS100**	Electrolytic,	10μF,	50V
C305		ECQM1H122KZ	Polyester,	0.0012μF,	50V, ±10%
C306		**ECEA50Z1**	Electrolytic,	1μF,	50V
C425, 426		ECCD1H101K	Ceramic,	100pF,	50V, ±10%
C427, 428		ECCD1H101K	Ceramic,	100pF,	50V, ±10%
C429, 430		ECQM1H473KZ	Polyester,	0.047μF,	50V, ±10%
C431		**ECEA1HS100**	Electrolytic,	10μF,	50V
C432, 433		ECKD1E104ZF	Ceramic,	0.1μF,	25V, +80% −20%
C434, 435		ECKD1E104ZF	Ceramic,	0.1μF,	25V, +80% −20%
C601 [M]	⚠	ECQF1A473MD	Polyester,	0.047μF,	400V, ±20%
C601 [MC]	⚠	ECQU1A473ME	Polyester,	0.047μF,	400V, ±20%

■ REPLACEMENT PARTS LIST (Electrical)

■ BLO

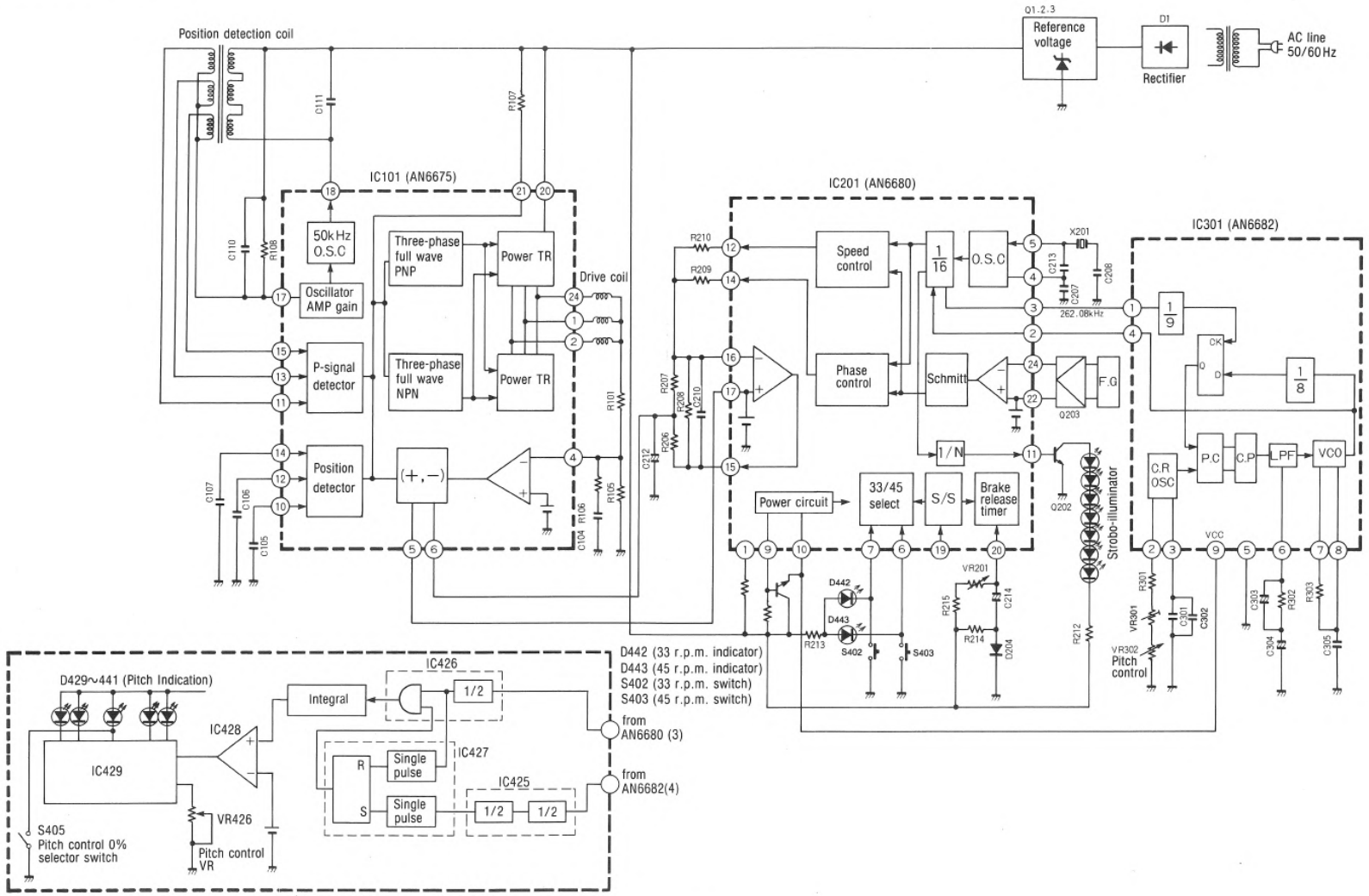
Notes:
1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. ⚠ indicates that only parts specified by the manufacturer be used for safety. (M) → [M], (MC) → [MC]
3. SL-1800MK2 (M) → [M], SL-1800MK2 (MC) → [MC]

Ref. No.		Part No.	Part Name & Description
INTEGRATED CIRCUITS			
IC1		SVIUPC14312	Integrated Circuit
IC101		AN6675	Integrated Circuit
IC201		AN6680	Integrated Circuit
IC301		AN6682	Integrated Circuit
IC302, 427		SVITC4011BP	Integrated Circuit
IC425, 426		SVITC4013BP	Integrated Circuit
IC428		AN6552	Integrated Circuit
IC429		SVIMS1901P*	Integrated Circuit
TRANSISTORS			
Q1		2SD389A-Q	Transistor
Q2, 3, 202		2SD637	Transistor
Q201		2SC1846-R	Transistor
Q203		2SC1328-T	Transistor
Q425, 426, 428		2SD636	Transistor
Q427		2SC1047-C	Transistor
Q430		2SB641	Transistor
DIODES			
D1, 3	⚠	**SVDS1RBA40**	Rectifier
D2, 301		**MA1051**	Diode, Zener 5.1V
D204, 425, 427 428, 451		**MA161**	Diode
D426		MA26TO-A	Diode
D429~434, 442 436~441, 443		SVDGL-9PR2	Light Emitting Diode
D435		SVDGL-9PG2	Light Emitting Diode
D444, 445, 446, 447, 448, 449, 450		SVDGD4205ALC	Light Emitting Diode
CRYSTAL			
X201		SVQU306115	Crystal, 4.19328MHz Oscillator
VARIABLE RESISTORS			
VR201		EVLS6AA00B54	Braking Adjustment (BRAKE), 50KΩ (B)
VR301		EVMH2GA00B53	Adjustment of Pitch Control ±0% (PITCH), 5KΩ (B)
VR425		EVTS6AA00B52	Adjustment of Pitch Control Frequency (GAIN), 500Ω (B)
VR426		EVHJXB001A24	Pitch Control, 20KΩ
SWITCHES			
S401		EVQP5R04K	Switch, Start/Stop
S402		EVQP5R04K	Switch, Speed Selector (33-1/3 r.p.m)
S403		EVQP5R04K	Switch, Speed Selector (45 r.p.m)
S406		SFDSD2MSL-4	Switch, Stylus-illuminator
S601	⚠	SFDSSS5GL-2	Switch, Power
LAMP			
PL1		SFDN172-01	Lamp, Stylus-illuminator
TRANSFORMER			
T1	⚠	SLT60EU6B	Power Transformer
FUSE			
F1	⚠	XBA2F03NU100	Fuse, 350mA
RESISTORS			

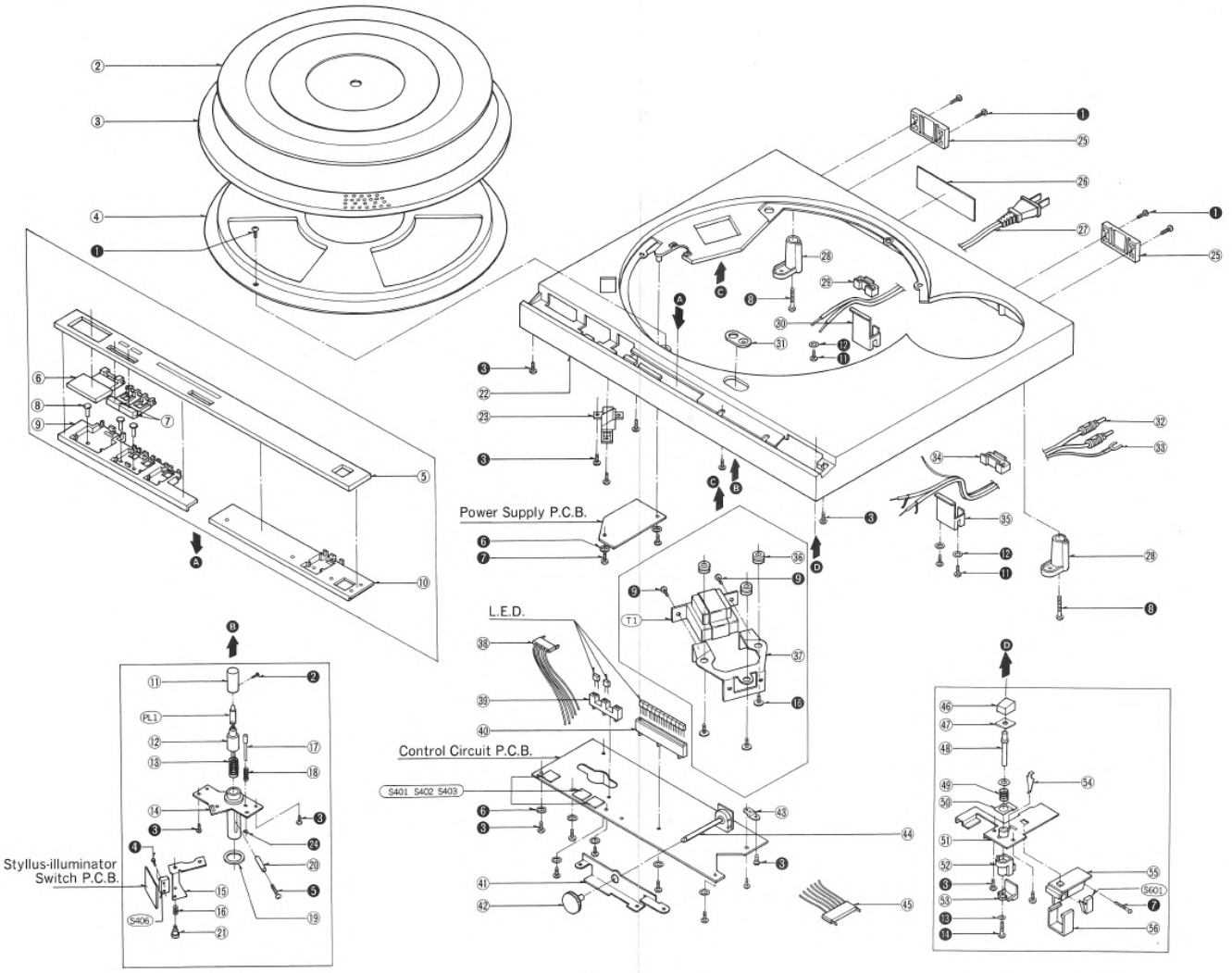
Ref. No.		Part No.	Part Name & Description
R1		**ERD25FJ562**	Carbon, 5.6kΩ, 1/4W, ± 5%
R2		**ERD25FJ682**	Carbon, 6.8kΩ, 1/4W, ± 5%
R3		**ERD25FJ272**	Carbon, 2.7kΩ, 1/4W, ± 5%
R4		**ERD25FJ561**	Carbon, 560Ω, 1/4W, ± 5%
R5		**ERD25FJ471**	Carbon, 470Ω, 1/4W, ± 5%
R101		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R102	⚠	ERX1ANJ4R7	Metal Film, 4.7Ω, 1W, ± 5%
R103		**ERD25FJ472**	Carbon, 4.7kΩ, 1/4W, ± 5%
R104		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R105		**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R106		**ERD25FJ150**	Carbon, 15Ω, 1/4W, ± 5%
R107	⚠	ERX1ANJ1R5	Metal Film, 1.5Ω, 1W, ± 5%
R108		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R109, 110	⚠	ERX1ANJ4R7	Metal Film, 4.7Ω, 1W, ± 5%
R201	⚠	ERG1ANJ561	Metal Oxide, 560Ω, 1W, ± 5%
R202		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R203		**ERD25FJ470**	Carbon, 47Ω, 1/4W, ± 5%
R204		**ERD25FJ272**	Carbon, 2.7kΩ, 1/4W, ± 5%
R205		**ERD25TJ124**	Carbon, 120kΩ, 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		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R212		**ERD25FJ121**	Carbon, 120Ω, 1/4W, ± 5%
R213		**ERD25FJ122**	Carbon, 1.2kΩ, 1/4W, ± 5%
R214		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R215		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R216		**ERD25TJ154**	Carbon, 150kΩ, 1/4W, ± 5%
R217		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R218		**ERD25FJ102**	Carbon, 1kΩ, 1/4W, ± 5%
R219		**ERD25FJ332**	Carbon, 3.3kΩ, 1/4W, ± 5%
R220		**ERD25FJ221**	Carbon, 220Ω, 1/4W, ± 5%
R221		**ERD25FJ471**	Carbon, 470Ω, 1/4W, ± 5%
R222		**ERD25FJ391**	Carbon, 390Ω, 1/4W, ± 5%
R301		ERO25CKG3301	Metal Film, 3.3kΩ, 1/4W, ± 2%
R302		**ERD25FJ471**	Carbon, 470Ω, 1/4W, ± 5%
R303		**ERD25FJ822**	Carbon, 8.2kΩ, 1/4W, ± 5%
R304		**ERD25FJ152**	Carbon, 1.5kΩ, 1/4W, ± 5%
R306		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R307		**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R308, 309		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R426, 427		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R428		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R430, 431		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R432		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R433		**ERD25TJ223**	Carbon, 22kΩ, 1/4W, ± 5%
R434		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R435		**ERD25FJ102**	Carbon, 1kΩ, 1/4W, ± 5%
R436		**ERD25TJ104**	Carbon, 100kΩ, 1/4W, ± 5%
R437		**ERD25FJ152**	Carbon, 1.5kΩ, 1/4W, ± 5%
R438		**ERD25FJ562**	Carbon, 5.6kΩ, 1/4W, ± 5%
R439		ERO25TKG1802	Metal Film, 18kΩ, 1/4W, ± 2%
R440		ERO25TKG4303	Metal Film, 430kΩ, 1/4W, ± 2%
R441		**ERD25TJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R442		**ERD25FJ471**	Carbon, 470Ω, 1/4W, ± 5%
R443		**ERD25FJ101**	Carbon, 100Ω, 1/4W, ± 5%
R444		**ERD25FJ681**	Carbon, 680Ω, 1/4W, ± 5%
R445		**ERD25FJ102**	Carbon, 1kΩ, 1/4W, ± 5%
R446		**ERD25FJ222**	Carbon, 2.2kΩ, 1/4W, ± 5%
R447		**ERD25TJ123**	Carbon, 12kΩ, 1/4W, ± 5%
R448		**ERD25FJ103**	Carbon, 10kΩ, 1/4W, ± 5%
R449		**ERD25FJ152**	Carbon, 1.5kΩ, 1/4W, ± 5%
R450		**ERD25FJ821**	Carbon, 820Ω, 1/4W, ± 5%
R451		**ERD25TJ473**	Carbon, 47kΩ, 1/4W, ± 5%
R601		**ERD25TJ4R7**	Carbon, 4.7Ω, 1/4W, ± 5%



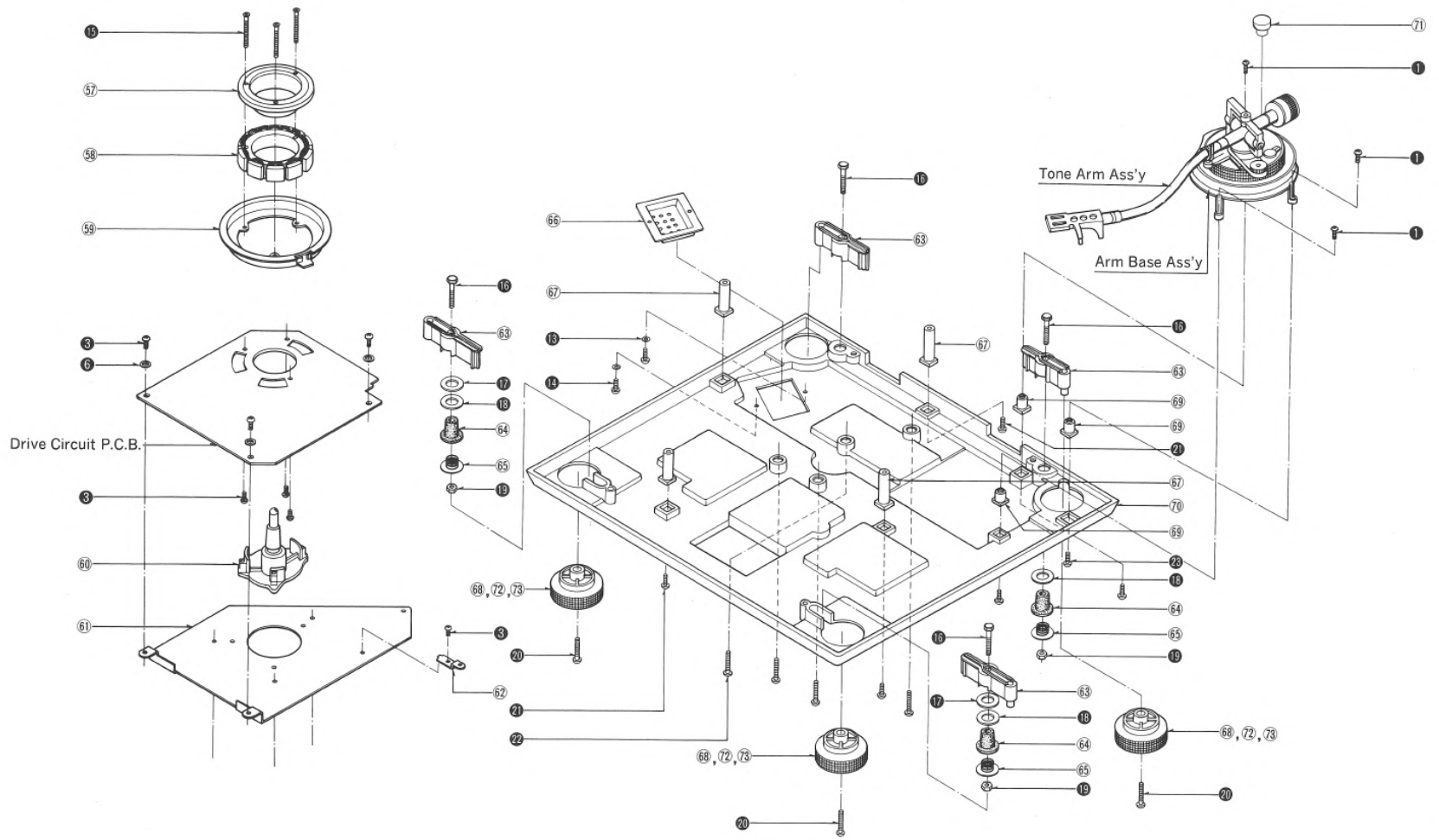
■ BLOCK DIAGRAM



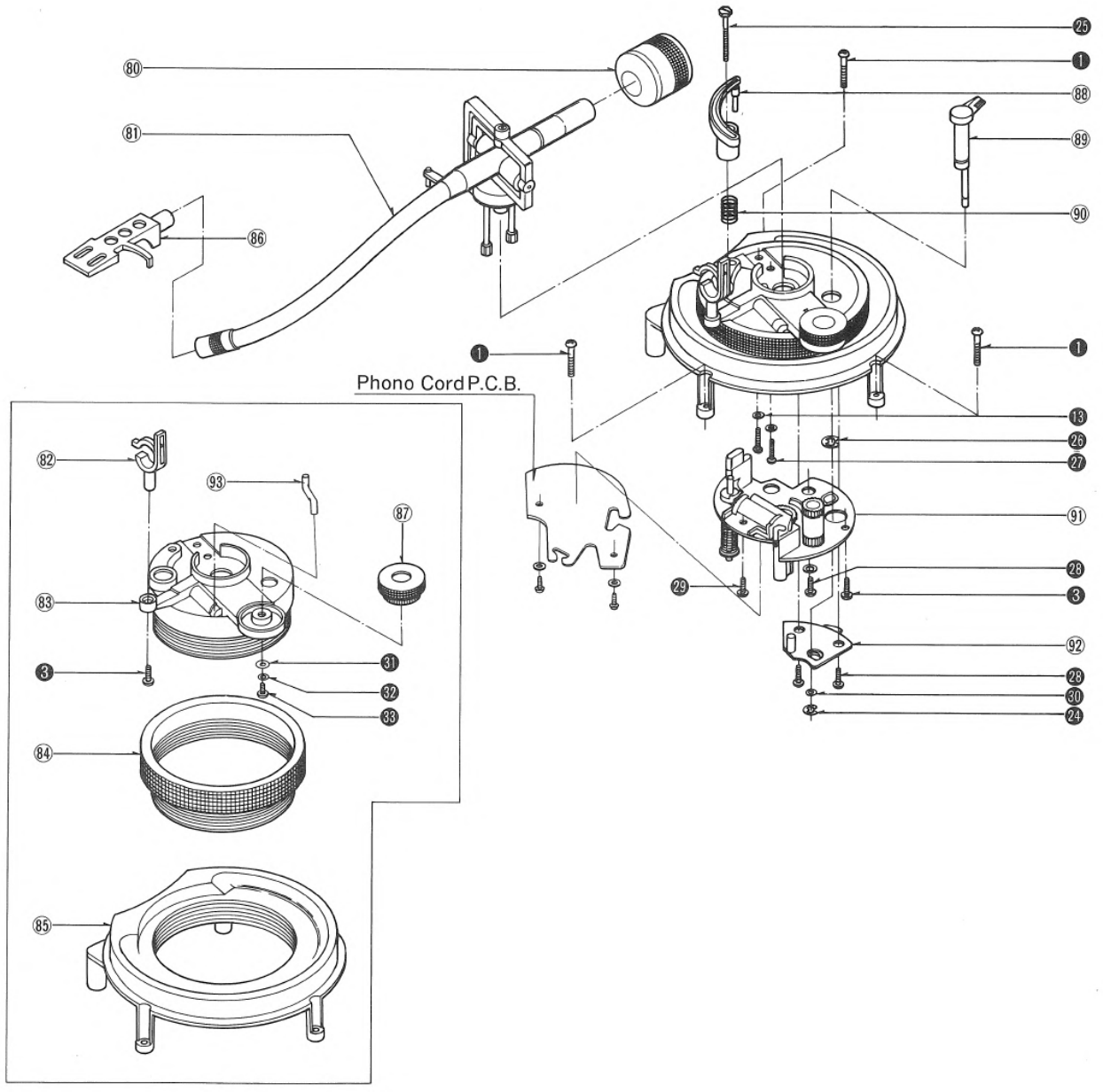
■ EXPLODED VIEWS



■ EXPLODED VIEWS



■ EXPLODED VIEWS



SL-1800MK2

■ REPLACEMENT PARTS LIST (Mechanical)

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 manufacturer be used for safety.
3. SL-1800MK2 (M)⟶ [M] , SL-1800MK2 (MC)⟶ [MC]

Ref. No.		Part No.	Part Name & Description
CABINET and CHASSIS PARTS			
1		SFAD172-01E	Dust Cover
2		SFTG172-01	Turntable Mat
3		SFTE172-01Z	Turntable
4		SFUM172-05	Cover, Turntable
5		SFUM182-01	Panel, Operation
6		SFKT162-01	Button, Start/Stop Switch
7		SFKT172-03	Button, Speed Selector
8		SFUM172-11	Pin, Switch
9		SFUM172-02	Bracket (A), Operation Panel
10		SFUM172-03	Bracket (B), Operation Panel
11		SFKK172-01	Cover, Lamp
12		SFXB172-02	Boss, Drive
13		SFQA172-01	Spring, Drive Boss
14		SFUP172-01E	Bracket, Plate Assembly
15		SFUP172-03	Plate, Lock Operation
16		SFQA001-02	Spring, Lock Operation Plate Pin
17		SFXJ172-01	Pin, Lock Canceler
18		SFQA520-01	Spring, Lock Canceler Pin
19		SFUZ172-02	Rubber
20		SFXO172-01	Pin, Guide
21		SFXJ172-05	Pin, Lock Operation Plate M'tg
22		SFAC182-01	Cabinet
23		SFUM130-01	Cover, Neon
24		SFAT172-01A	Hinge Ass'y
25		SFUM170-07	Case, Hing Ass'y
26 [M]		SFNN182M01	Name Plate
26 [MC]		SFNN182C01	Name Plate
27	⚠	RJA9YA	AC Cord
28		SFAZ172-01	Supporter, Insulator
29		SFUM170-06	Spacer, AC Cord
30		SFUM170-05	Clamper, AC Cord
31		SFUM172-04	Ornament, Stylus-illuminator
32 [M]		SFDH360M01	Phono Cord
32 [MC]		SFDH028-01	Phono Cord
33		SFEL028-01E	Ground Wire
34		SFUM170-06	Spacer, Phono Cord
35		SFUM170-11	Clamper, Phono Cord
36		SFGC132-01	Spacer (Rubber), Power Transformer Bracket
37		SFUP132-03	Bracket, Power Transformer
38		SFDJ172-02E	Connector, 7 Pin
39		SFUM170-10	Spacer (A), Speed Selector L.E.D.
40		SFUM172-09	Spacer (A), Speed Selector L.E.D.
41		SFUP172-06	Bracket, Pitch Control Knob Plate
42		SFKT172-04	Knob, Pitch Control
43		SFUP182-01	Bracket, Control Circuit P.C.B.
44		SFUP172-09	Bracket, Volume Shaft
45		SFDJ172-03E	Connector, 9 Pin
46		SFKT172-01	Button, Power Switch
47		SFUZ172-03	Spacer, Power Switch Button
48		SFXJ172-03	Shaft, Power Switch Button
49		SFQA172-02	Spring, Power Switch
50		SFUP172-04	Supporter, Power Switch Plate
51		SFUP172-02E	Bracket, Power Switch M'tg Plate Ass'y
52		SFUM001-11	Cam, Power Switch
53		SFUM132-07	Cam, Power Switch
54		SFUP001-03	Bracket, Power Switch
55		SFUM132-05	Holder, Power Switch
56		SFUM132-06	Holder, Power Switch
57		SFMGQ20-01	Cover, Stater Frame Ass'y
58		SFMG520-31A	Stater Frame
59		SFMZ172-01E	FG Detector Coil Ass'y
60		SFMZQ20-01Z	Shaft, Stater Frame Ass'y
61		SFUP172-05	Bracket, Stater Frame M'tg Plate
62		SFUP172-08	Bracket, Drive P.C.B. Ass'y
63		SFUM172-06	Insulator (A)
64		SFGA170-01	Rubber, Insulator
65		SFQC170-01	Spring, Insulator
66		SFUP132-01	Cover, Power Transformer
67		SFUM172-12	Spacer, Clamper
68		SFUM172-07	Insulator (B)
69		SFUM172-13	Spacer, Tone Arm
70		SFAU172-01	Bottom Board
71		SFGK132-01	Cap, Rubber
72		SFGA172-01	Insulator (C)
73		SFUZ172-01	Felt, Insulator
TONE ARM and ARM BASE			
80		SFPWG17201K	Balance Weight Ass'y
81		SFPAM18201K	Tone Arm Ass'y
82		SFPRT17201K	Arm Rest
83		SFPKD17203	Arm Base
84		SFPKB17201S	Ring, Arm Base Operation
85		SFPKD17201	Bracket, Arm Base
86		SFPCC31001K	Head Shell
87		SFPAB17206	Knob, Anti-Skate Force Control
88		SFPRT17202K	Lift Ass'y
89		SFPZB17202	Knob, Arm Base Lock
90		SFQA829-03	Spring, Lift Ass'y
91		SFPAB18201K	Tone Arm Fixing Plate Ass'y
92		SFPZB17203K	Plate, Lock Position Fix
93		SFPAB13202	Knob, Arm Lift
94		SFUZ172M01	Supporter, Power Transformer Read
SCREWS, WASHERS, NUT and CIRCLIPS			
❶		**XTN3+8BFZ**	Screw
❷		XSN17+3FY	Screw
❸		**XTN3+8B**	Screw
❹		**XSN2+8**	Screw
❺		**XSN3+14S**	Screw
❻		**XWG3**	Washer
❼		**XTN3+16B**	Screw
❽		**XTN4+20B**	Screw
❾		**XTN4+10B**	Screw
❿		SFXG132-02	Screw
⓫		**XTN3+16BFZ**	Screw
⓬		**XWG3FZ**	Washer
⓭		**XWA3B**	Washer
⓮		**XSN3+10S**	Screw
⓯		SFXGQ20-02	Screw
⓰		XVG4C30	Bolt
⓱		SFXW172-01	Washer
⓲		SFXW172-02	Washer
⓳		SFXG170-02E	Nut
⓴		**XTN4+45B**	Screw
㉑		**XTV4+14BFN**	Screw
㉒		**XTW3+25B**	Screw
㉓		**XTN4+12B**	Screw
㉔		**XUC25FT**	Circlip
㉕		SFXG829-1	Screw
㉖		**XUC5FT**	Circlip
㉗		**XSN3+8S**	Screw
㉘		**XTW3+6B**	Screw
㉙		**XTV3+6BFN**	Screw
㉚		**XWE4A10EW**	Washer
㉛		SFPEW17201	Washer
㉜		**XWG26**	Washer
㉝		**XTN26+6B**	Screw
ACCESSORIES			
A1 [M]		SFNU182M01	Instruction Book
A1 [MC]		SFNU182C01	Instruction Book
A2		SFWE212-01	Adaptor, 45 r.p.m.
A3		SFPEN3302	Nut, Cartridge
A4		SFPEW9601	Washer, Head Shell
A5		SFCZV8801	Screw, Cartridge
A6		SFPEV9801	Screw, Cartridge
A7		SFYF05A06	Polyethylene Bag
A8		SFKO135-01	Overhang Gauge
A9		SFPZB3501	Shell Weight
A10		SFYF05A06	Polyethylene Bag
PACKINGS			
P1 [M]		SFHP182M01	Carton
P1 [MC]		SFHP182C01	Carton
P2		SFHH172-01	Pad, Front
P3		SFHH172-02	Pad, Rear
P4		SFHD172-01	Pad, Top
P5		SFHD172-02	Pad, Turntable
P6		SFYH60X60	Polyethylene Cover, Turntable Unit and Dust Cover
P7		SFYH40X45	Polyethylene Cover, Turntable

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