

Service Manual

Turntable System
SL-1800MK2
 (M), (MC)

SL-1800MK2



- 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: 45.3 x 14.9 x 39.9 cm
 (WxHxD)
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: ±8% 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 C5621)
 ±0.035% peak (IEC 98A Weighted)

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

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

Tonearm section

Type: Universal
Effective length: 230 mm (9-1/16")
Arm height adjustment range: 0-6 mm
Overhang: 15 mm (9/32")
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): 3.5-8.5 g
 11-14 g (including headshell)
Headshell weight: 7.5 g

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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 scratch the dust cover.
5. Remove 6 screws ① of the audio insulator and 2 screws ② of the phono cord clamping 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 ③ of the panel cover as shown in fig. 2.
9. Remove 2 connectors ④ and 2 read wires ⑤ 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 easily. (See fig. 4, 5 and 6.)

HOW TO REMOVE DRIVE CIRCUIT BOARD

(Refer to 1~10.)

11. Remove 3 screws ⑥ of the drive circuit board and 3 screws ⑦ of the stator frame cover as shown in fig. 5.

HOW TO REMOVE STATOR FRAME COIL AND F-G DETECTOR COIL

(Refer to 1~11.)

12. Disconnect 18 soldered parts ⑧ of the stator coil and 4 soldered parts ⑨ of the F-G detector coil as shown in fig. 7.
13. Remove 3 screws ⑩ of the stator frame ass'y as shown in fig. 7.

HOW TO REMOVE CONTROL CIRCUIT BOARD ASS'Y

(Refer to 1~10.)

14. Remove 7 screws ⑪ of the control circuit board ass'y as shown in fig. 6.

HOW TO REMOVE STYLUS-ILLUMINATOR LAMP

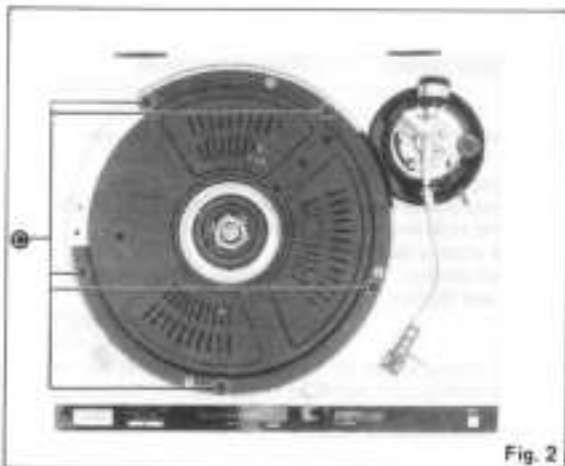
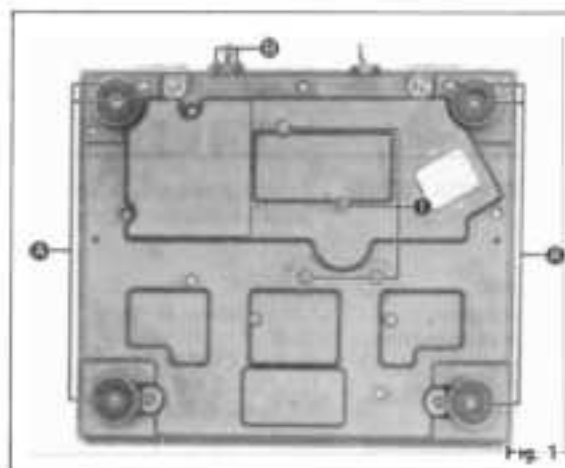
(Refer to 1~10 and 14.)

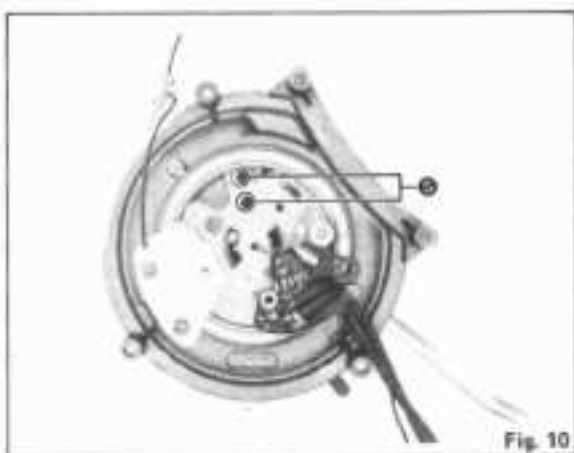
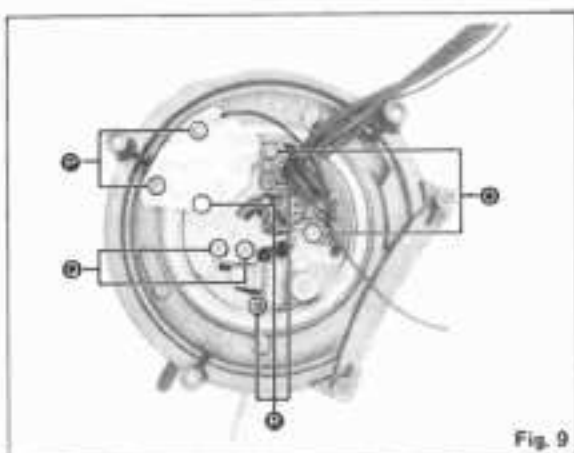
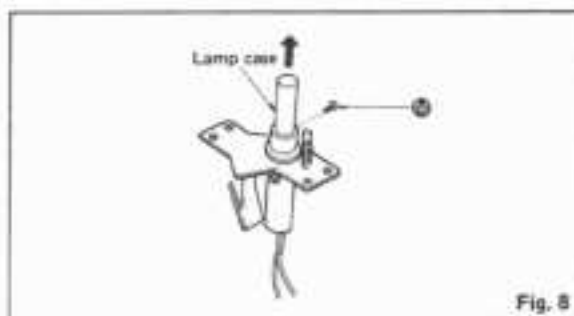
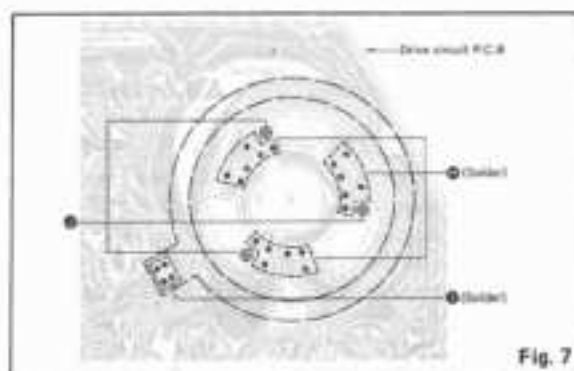
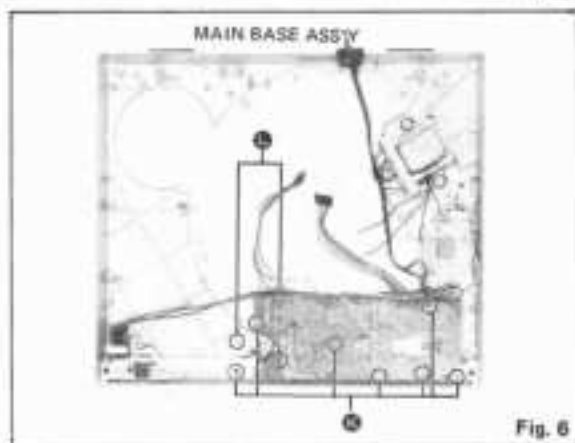
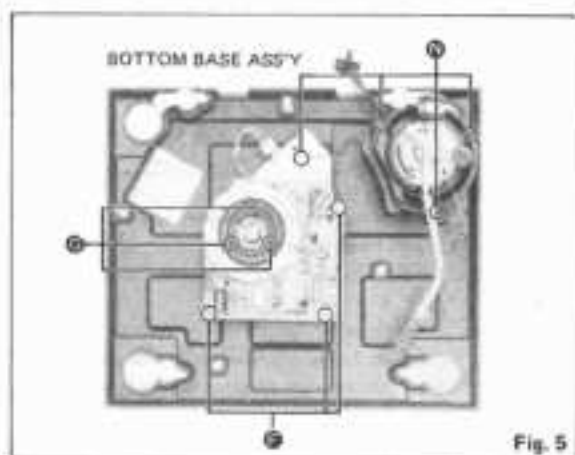
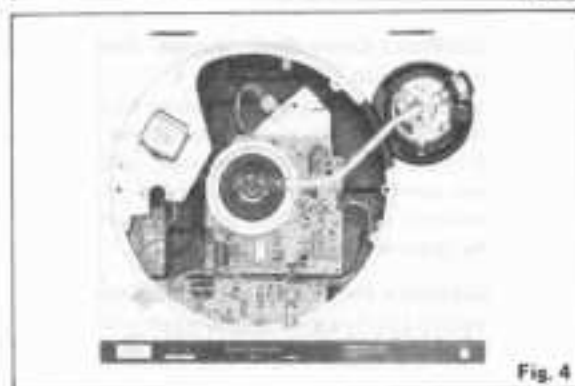
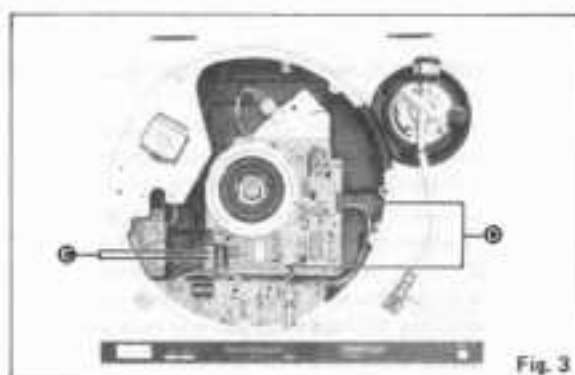
15. Remove 2 screws ⑫ of the stylus-illuminator lamp ass'y as shown in fig. 8.
16. Remove 1 screw ⑬ as shown in fig. 8.

HOW TO REMOVE TONE ARM AND ARM BASE ASS'Y

(Refer to 1~10.)

17. Remove 4 screws ⑭ as shown in fig. 5.
18. Remove 2 screws ⑮ of the phono cord p.c.b. as shown in fig. 9.
19. Remove 2 screws ⑯ as shown in fig. 9.
20. Remove 2 screws ⑰ of the silicon oil dumper as shown in fig. 9.
21. Remove 3 screws ⑱ as shown in fig. 9.
22. Remove 2 screws ⑲ of the tone arm as shown in fig. 10.





■ ARM BASE ASSEMBLING PROCEDURE

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

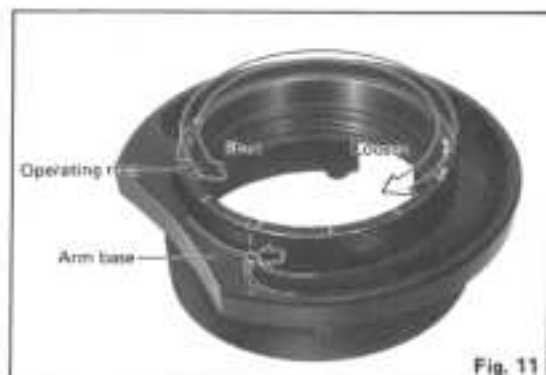


Fig. 11

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

Note:

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



Fig. 12

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



Fig. 13

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



Fig. 14



Fig. 15

■ ADJUSTMENT OF CANCELLER SPRING POSITION

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

If the canceller spring is deflected, adjust it as follows:

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

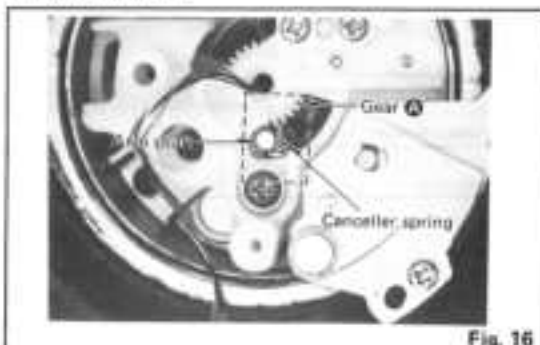


Fig. 16

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 ❷ as in Fig. 17.
3. Completely tighten the 4 setscrews ❶, taking care not to allow deflection of the center spindle.

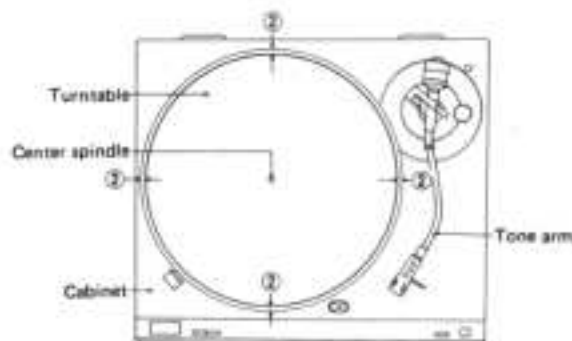


Fig. 17

■ PARTS IDENTIFICATIONS

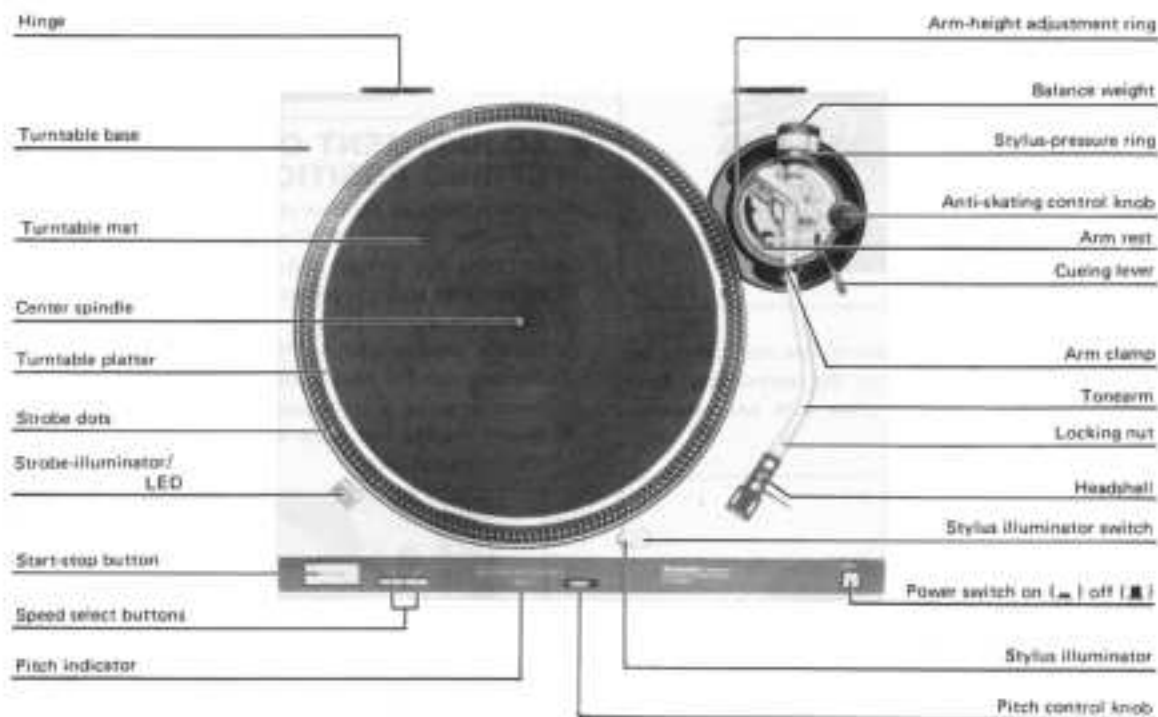


Fig. 18

■ FEATURES

Total Quartz Locked Continuous Pitch Adjustment $\pm 6\%$

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 $\pm 6\%$, 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

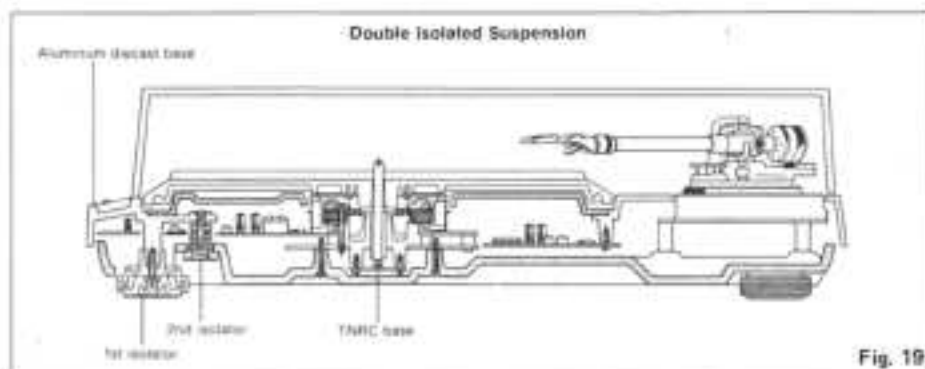
A quartz controlled LED strobe illuminates four lines of stroboscope markings on the platter edge. These markings correspond to percentages of speed change: +6%, +3.3%, 0% (standard speed) and -3%. When the line of markings seem to stand still, this means that the platter is rotating at precisely the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



■ 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.

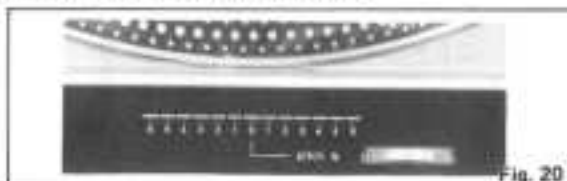


Fig. 20

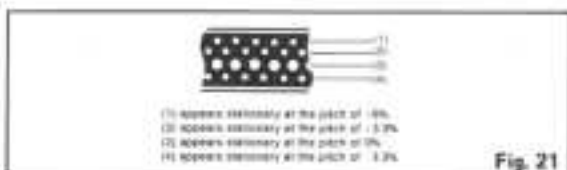


Fig. 21

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.)

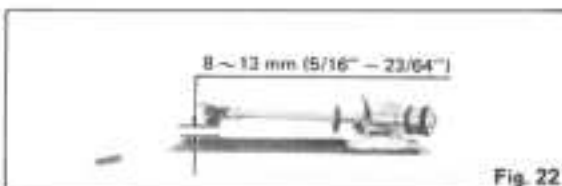


Fig. 22



Fig. 23



Fig. 24

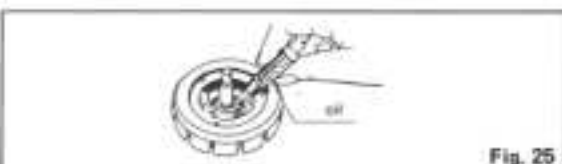


Fig. 25

■ ADJUSTMENTS (Electrical)

Adjustments (Electrical)

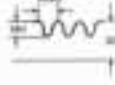
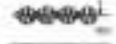
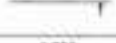
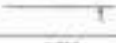
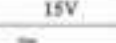
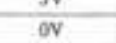
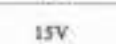
Notes: • Make the following adjustments after replacing parts such as IC's, transistors, diodes, etc.

- Condition of the set.
 1. Power switchON
 2. Pitch controlCenter position
 3. Speed selector switch33-1/3 r.p.m.
- Instruments to be used
 1. Oscilloscope
 2. Frequency counter

	Adjustment	Connection Points	Adjustment Point	Adjustment Method
A	Adjustment of pitch control $\pm 0\%$ (PITCH)	Frequency counter ⊕ — TP27 ⊖ — GROUND	VR301	1. Pitch control switch to center position. 2. Adjust VR301 for 262.08 kHz ± 0.05 kHz of frequency.
B	Adjustment of pitch control frequency (GAIN)	Frequency counter ⊕ — TP27 ⊖ — GROUND	VR425	1. Adjust pitch control switch for 269.94 kHz of frequency. 2. Adjust VR425 so that the LED (Pitch indicator plus 3%) lights up.
C	Braking adjustment (BRAKE)	—	VR201	Adjust VR201 for complete stop within $120^\circ - 270^\circ$ after stop signal initiated. (Turntable becomes free a few seconds after stop) 

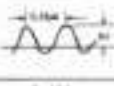
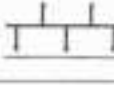
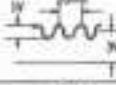
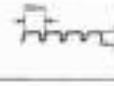
■ REFERENCE VOLTAGE AND WAVEFORM AT EACH IC PIN AND TEST POINT

IC101 (AN6675)

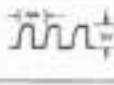
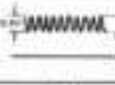
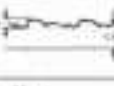
	Start	Stop		Start	Stop		Start	Stop
①	2V	2V	⑪		15V	⑫	Same as at right	
②	2V	2V						
③	0V	0V	⑫			⑬	20V	20V
④	3V	3V						
⑤	5V	5V	⑬			⑭	20V	20V
⑥	5V	6.6V						
⑦	0V	0V	⑭	15V	15V	⑮	20V	20V
⑧	5V	5V						
⑨	0V	0V	⑮			⑯	0.2V	0.2V
⑩		15V						
⑪			⑯	0V	0V	⑰	20V	20V
				15V	15V		1.7V	1.7V

SL-1800MK2

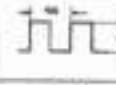
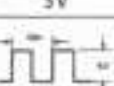
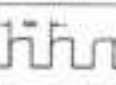
IC201 (AN6680)

	Start	Stop		Start	Stop		Start	Stop
①	2.5V	2.5V	④	0V	0V	⑥	5V	2.5V
②	Same as at right		⑤	9.8V	9.8V	⑦	5V	5V
③	Same as at right		⑧	10V	10V	⑧	0V	0V
④	Same as at right		⑨	Same as at right		⑨	7.5V	0V
⑤	Same as at right		⑩	0V	0V	⑩	0V	5V
⑥	3.4V	3.4V	⑪		0.2V	⑪		3V
⑦	0V	0V	⑫		8V	⑫	2.8V	2.8V

IC301 (AN6682)

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

IC302 (SVTIC4011BP)

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

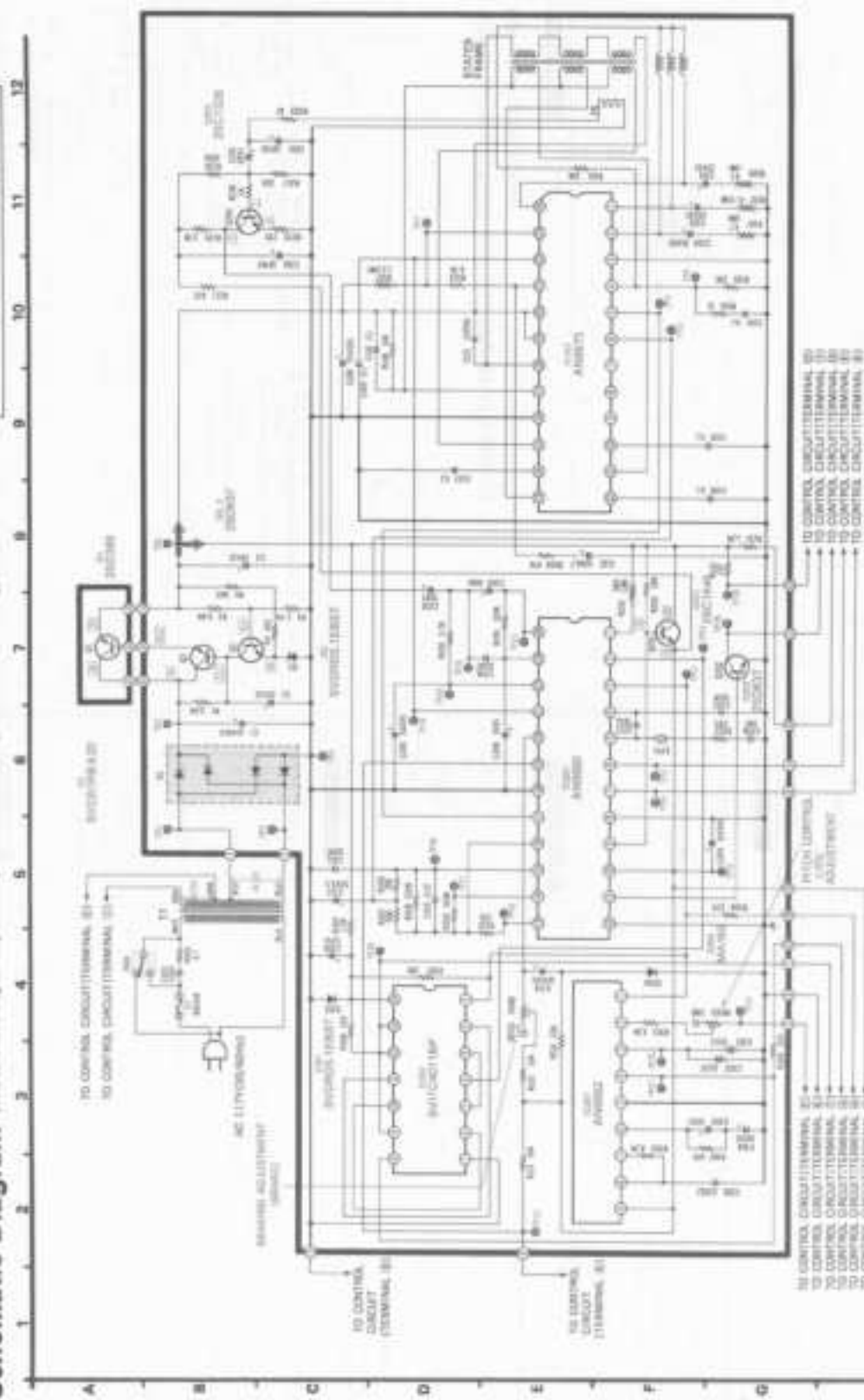
Q202 (2SD637)

	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



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



12

[illegible]

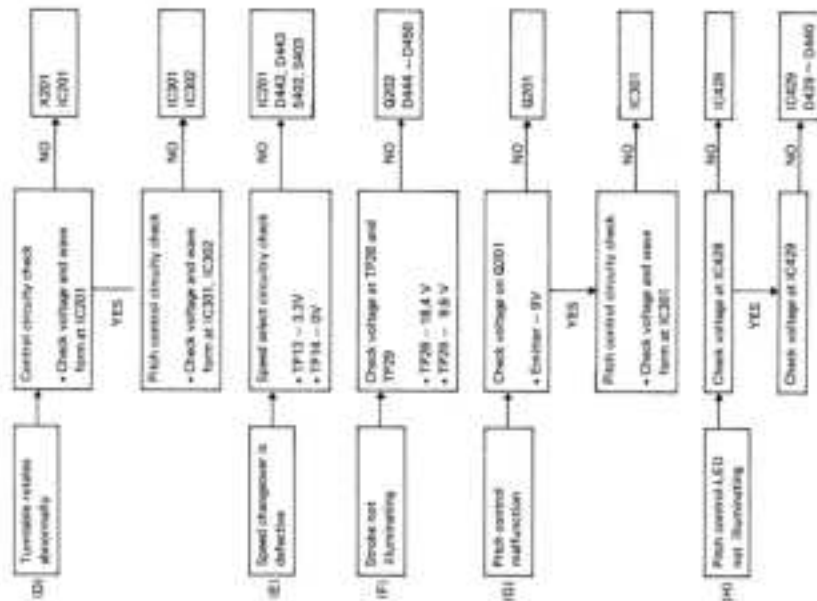
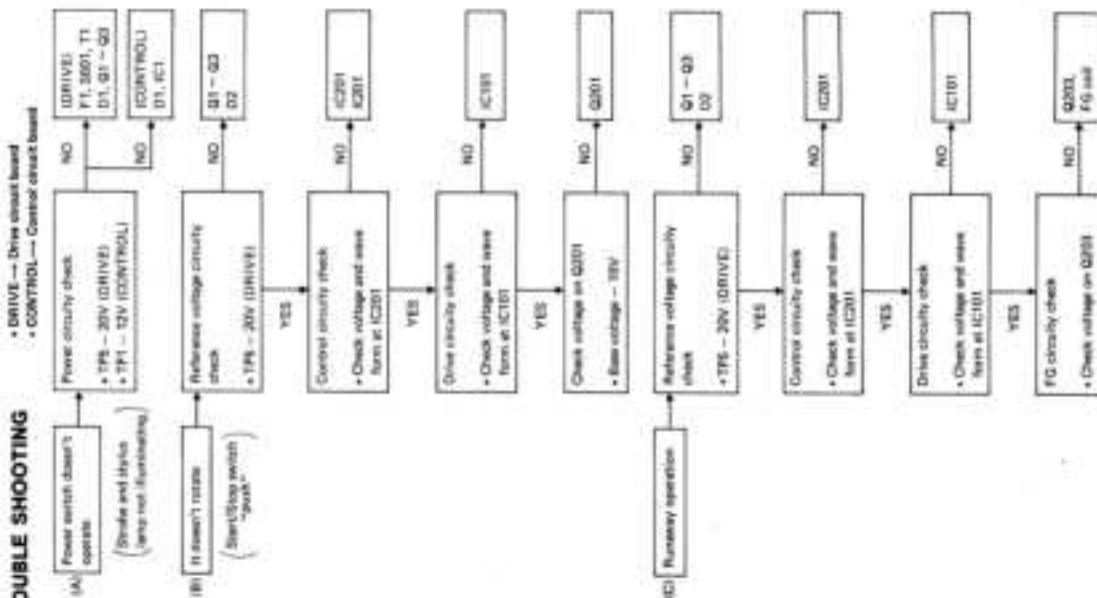
■ TERMINAL GUIDE OF

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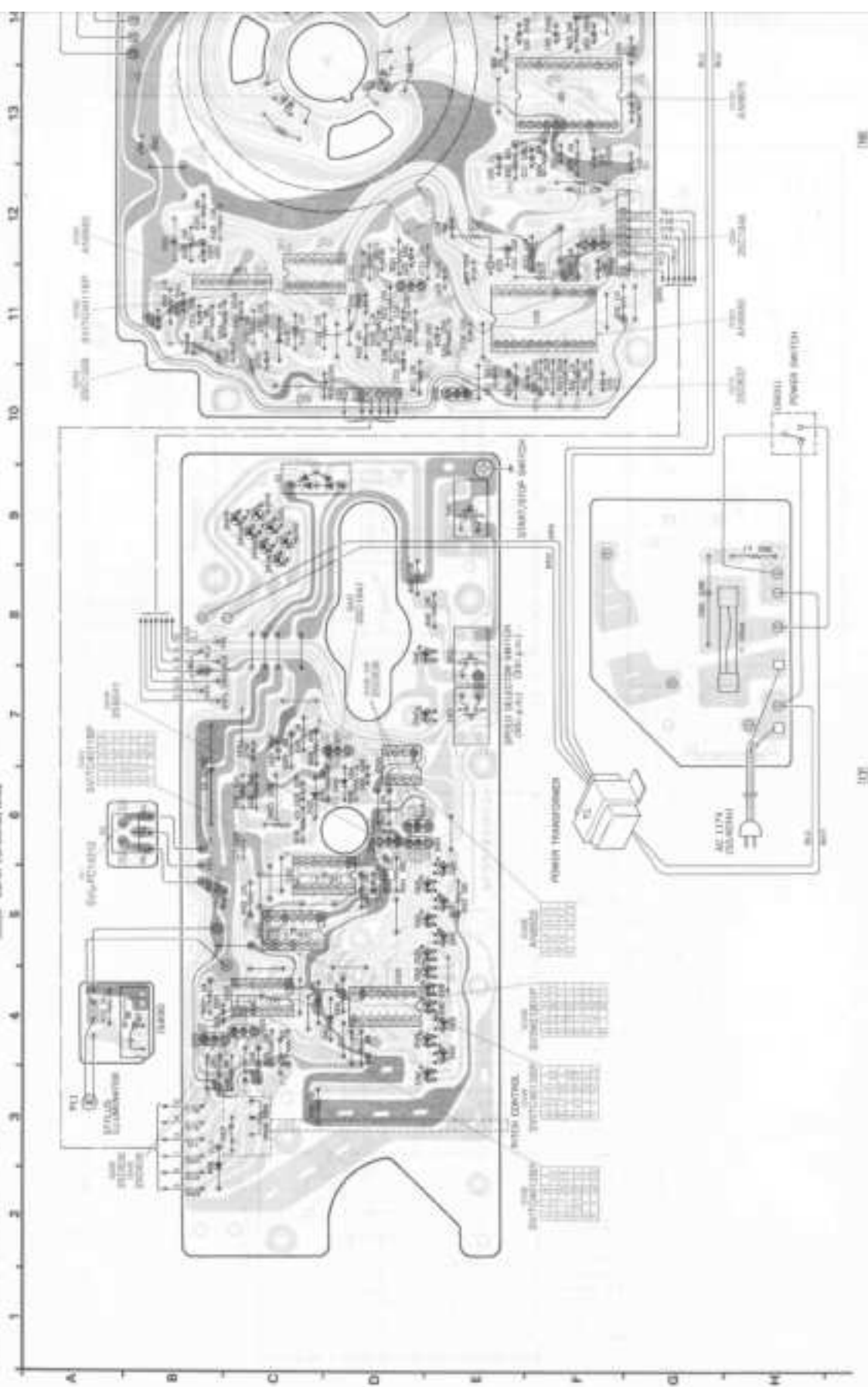
[illegible]

SL-1800MK2 SL-1800MK2

TROUBLE SHOOTING



Printed Circuit Board



■ REPLACEMENT PARTS LIST (Electrical)

■ BLO

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

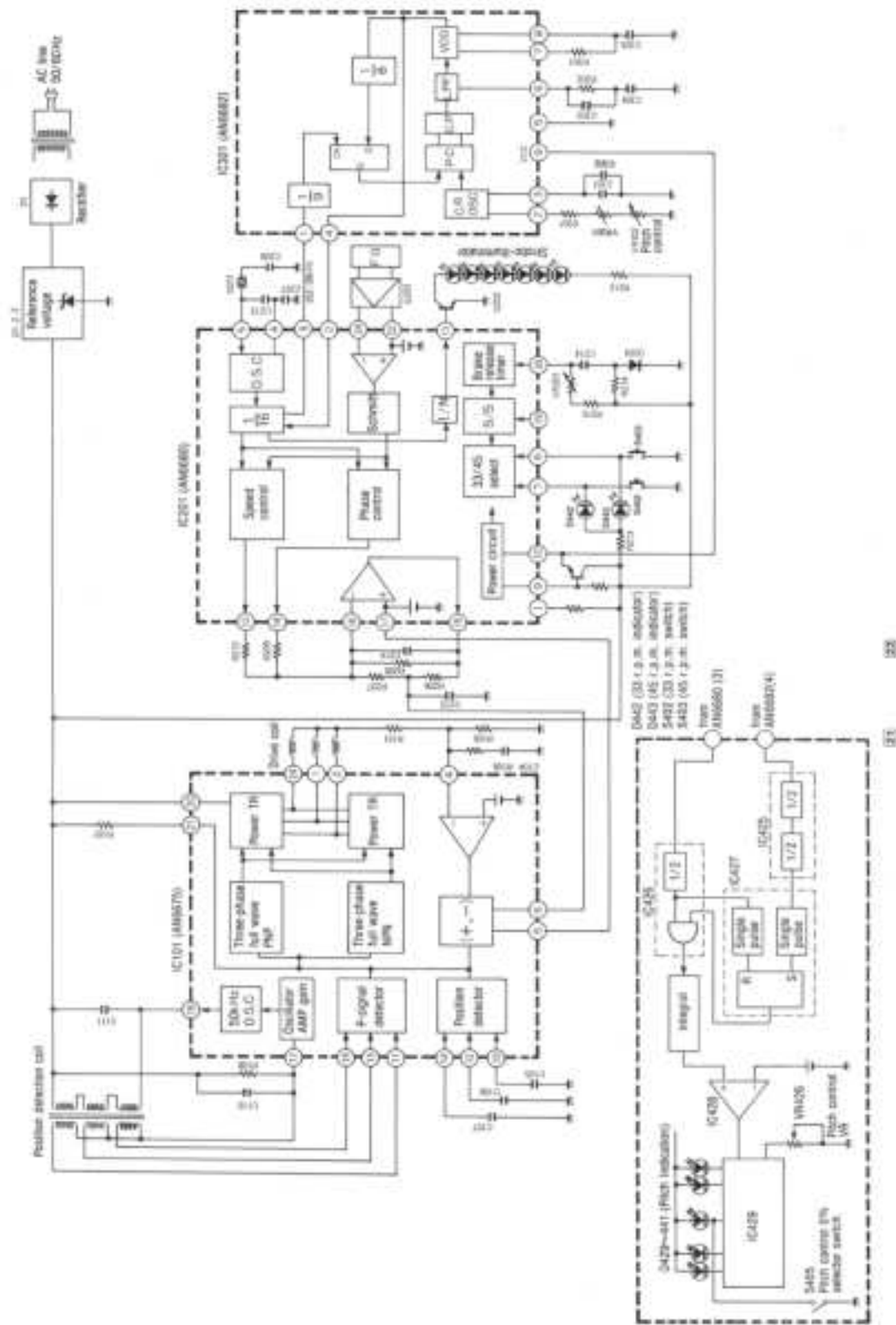
Ref. No.	Part No.	Part Name & Description
INTEGRATED CIRCUITS		
IC1	SVIUPC1433	Integrated Circuit
IC101	AN6675	Integrated Circuit
IC201	AN6680	Integrated Circuit
IC301	AN6682	Integrated Circuit
IC302, 427	SVITC4011BF	Integrated Circuit
IC425, 426	SVITC4012BF	Integrated Circuit
IC428	AN6552	Integrated Circuit
IC429	SVIMS1961P*	Integrated Circuit
TRANSISTORS		
Q1	2SD389A-Q	Transistor
Q2, 3, 202	2SD637	Transistor
Q201	2SC1845-R	Transistor
Q203	2SC1328-T	Transistor
Q425, 426, 428	2SD636	Transistor
Q427	2SC1047-C	Transistor
Q430	2SB941	Transistor
DIODES		
D1, 3	Δ SVOSTRBA40	Rectifier
D2, 301	MA1051	Diode, Zener 5.1V
D204, 425, 427	MA101	Diode
428, 451	MA26TD-A	Diode
D426	SVDDL-0PR2	Light Emitting Diode
D429~434, 442	SVDDL-0PR2	Light Emitting Diode
435~441, 443	SVDDL-0PR2	Light Emitting Diode
D435	SVDDL-0PR2	Light Emitting Diode
D444, 445, 446	SVDDG4205ALC	Light Emitting Diode
447, 448, 449		
450		
CRYSTAL		
X201	SVGU306115	Crystal, 4.19325MHz Oscillator
VARIABLE RESISTORS		
VR201	EVL56AA00854	Braking Adjustment (BRAKE), 50K Ω (B)
VR301	EVMH2G400853	Adjustment of Pitch Control 42% (PITCH), 5K Ω (B)
VR425	EVT56AA00852	Adjustment of Pitch Control Frequency (GAIN), 500 Ω (B)
VR426	EVHUXB001A24	Pitch Control, 20K Ω
SWITCHES		
S401	EVQPSR04K	Switch, Start/Stop
S402	EVQPSR04K	Switch, Speed Selector 123-1/3 (r.p.m)
S403	EVQPSR04K	Switch, Speed Selector 145 (r.p.m)
S406	SFQSD2MSL-4	Switch, Stylus-Illuminator
S407	Δ SFQSD55GL-2	Switch, Power
LAMP		
PL1	SFQNH172-01	Lamp, Stylus-Illuminator
TRANSFORMER		
T1	Δ SLT80EUS8	Power Transformer
FUSE		
F1	Δ xBA2F038U100	Fuse, 350mA
RESISTORS		

Ref. No.	Part No.	Part Name & Description
R1	ERD25FJ562	Carbon, 5.6K Ω , 1/4W, $\pm 5\%$
R2	ERD25FJ682	Carbon, 6.8K Ω , 1/4W, $\pm 5\%$
R3	ERD25FJ272	Carbon, 2.7K Ω , 1/4W, $\pm 5\%$
R4	ERD25FJ561	Carbon, 560 Ω , 1/4W, $\pm 5\%$
R5	ERD25FJ471	Carbon, 470 Ω , 1/4W, $\pm 5\%$
R101	Δ ERD25FJ103	Carbon, 10K Ω , 1/4W, $\pm 5\%$
R102	ERX1ANJHR7	Metal Film, 4.7 Ω , 1W, $\pm 5\%$
R103	ERD25FJ472	Carbon, 4.7K Ω , 1/4W, $\pm 5\%$
R104	ERD25FJ473	Carbon, 47K Ω , 1/4W, $\pm 5\%$
R105	ERD25TJ103	Carbon, 10K Ω , 1/4W, $\pm 5\%$
R106	ERD25FJ180	Carbon, 18 Ω , 1/4W, $\pm 5\%$
R107	Δ ERX1ANJ1R5	Metal Film, 1.5 Ω , 1W, $\pm 5\%$
R108	ERD25FJ103	Carbon, 10K Ω , 1/4W, $\pm 5\%$
R109, 130	Δ ERX1ANJHR7	Metal Film, 4.7 Ω , 1W, $\pm 5\%$
R201	Δ ERG1ANL551	Metal Oxide, 500 Ω , 1W, $\pm 5\%$
R202	ERD25FJ103	Carbon, 10K Ω , 1/4W, $\pm 5\%$
R203	ERD25FJ470	Carbon, 47 Ω , 1/4W, $\pm 5\%$
R204	ERD25FJ272	Carbon, 2.7K Ω , 1/4W, $\pm 5\%$
R205	ERD25TJ124	Carbon, 120K Ω , 1/4W, $\pm 5\%$
R206	ERD25TJ183	Carbon, 18K Ω , 1/4W, $\pm 5\%$
R207	ERD25TJ263	Carbon, 26K Ω , 1/4W, $\pm 5\%$
R208	ERD25TJ224	Carbon, 22K Ω , 1/4W, $\pm 5\%$
R209	ERD25TJ154	Carbon, 15K Ω , 1/4W, $\pm 5\%$
R210	ERD25TJ223	Carbon, 22K Ω , 1/4W, $\pm 5\%$
R211	ERD25FJ193	Carbon, 19K Ω , 1/4W, $\pm 5\%$
R212	ERD25FJ121	Carbon, 120 Ω , 1/4W, $\pm 5\%$
R213	ERD25FJ122	Carbon, 1.2K Ω , 1/4W, $\pm 5\%$
R214	ERD25TJ223	Carbon, 22K Ω , 1/4W, $\pm 5\%$
R215	ERD25FJ193	Carbon, 19K Ω , 1/4W, $\pm 5\%$
R216	ERD25TJ154	Carbon, 15K Ω , 1/4W, $\pm 5\%$
R217	ERD25TJ223	Carbon, 22K Ω , 1/4W, $\pm 5\%$
R218	ERD25FJ193	Carbon, 19K Ω , 1/4W, $\pm 5\%$
R219	ERD25FJ332	Carbon, 3.3K Ω , 1/4W, $\pm 5\%$
R220	ERD25FJ221	Carbon, 220 Ω , 1/4W, $\pm 5\%$
R221	ERD25FJ471	Carbon, 470 Ω , 1/4W, $\pm 5\%$
R222	ERD25FJ091	Carbon, 90 Ω , 1/4W, $\pm 5\%$
R301	ERD25CKG3301	Metal Film, 3.3K Ω , 1/4W, $\pm 2\%$
R302	ERD25FJ471	Carbon, 470 Ω , 1/4W, $\pm 5\%$
R303	ERD25FJ822	Carbon, 8.2K Ω , 1/4W, $\pm 5\%$
R304	ERD25FJ152	Carbon, 1.5K Ω , 1/4W, $\pm 5\%$
R305	ERD25TJ223	Carbon, 22K Ω , 1/4W, $\pm 5\%$
R307	ERD25TJ103	Carbon, 10K Ω , 1/4W, $\pm 5\%$
R308, 209	ERD25TJ223	Carbon, 22K Ω , 1/4W, $\pm 5\%$
R426, 427	ERD25FJ193	Carbon, 19K Ω , 1/4W, $\pm 5\%$
R428	ERD25FJ193	Carbon, 19K Ω , 1/4W, $\pm 5\%$
R430, 431	ERD25FJ103	Carbon, 10K Ω , 1/4W, $\pm 5\%$
R432	ERD25FJ103	Carbon, 10K Ω , 1/4W, $\pm 5\%$
R433	ERD25TJ223	Carbon, 22K Ω , 1/4W, $\pm 5\%$
R434	ERD25TJ473	Carbon, 47K Ω , 1/4W, $\pm 5\%$
R435	ERD25FJ182	Carbon, 18K Ω , 1/4W, $\pm 5\%$
R436	ERD25TJ104	Carbon, 100K Ω , 1/4W, $\pm 5\%$
R437	ERD25FJ182	Carbon, 1.5K Ω , 1/4W, $\pm 5\%$
R438	ERD25FJ562	Carbon, 5.6K Ω , 1/4W, $\pm 5\%$
R439	ERD25TJ01802	Metal Film, 18K Ω , 1/4W, $\pm 2\%$
R440	ERD25TJ04303	Metal Film, 430K Ω , 1/4W, $\pm 2\%$
R441	ERD25TJ193	Carbon, 19K Ω , 1/4W, $\pm 5\%$
R442	ERD25FJ471	Carbon, 470 Ω , 1/4W, $\pm 5\%$
R443	ERD25FJ191	Carbon, 100 Ω , 1/4W, $\pm 5\%$
R444	ERD25FJ681	Carbon, 680 Ω , 1/4W, $\pm 5\%$
R445	ERD25FJ192	Carbon, 19K Ω , 1/4W, $\pm 5\%$
R446	ERD25TJ222	Carbon, 2.2K Ω , 1/4W, $\pm 5\%$
R447	ERD25TJ123	Carbon, 12K Ω , 1/4W, $\pm 5\%$
R448	ERD25FJ193	Carbon, 19K Ω , 1/4W, $\pm 5\%$
R449	ERD25FJ152	Carbon, 1.5K Ω , 1/4W, $\pm 5\%$
R450	ERD25FJ821	Carbon, 820 Ω , 1/4W, $\pm 5\%$
R451	ERD25TJ473	Carbon, 47K Ω , 1/4W, $\pm 5\%$
R601	ERD25TJ4R7	Carbon, 4.7 Ω , 1/4W, $\pm 5\%$



■ BLOCK DIAGRAM

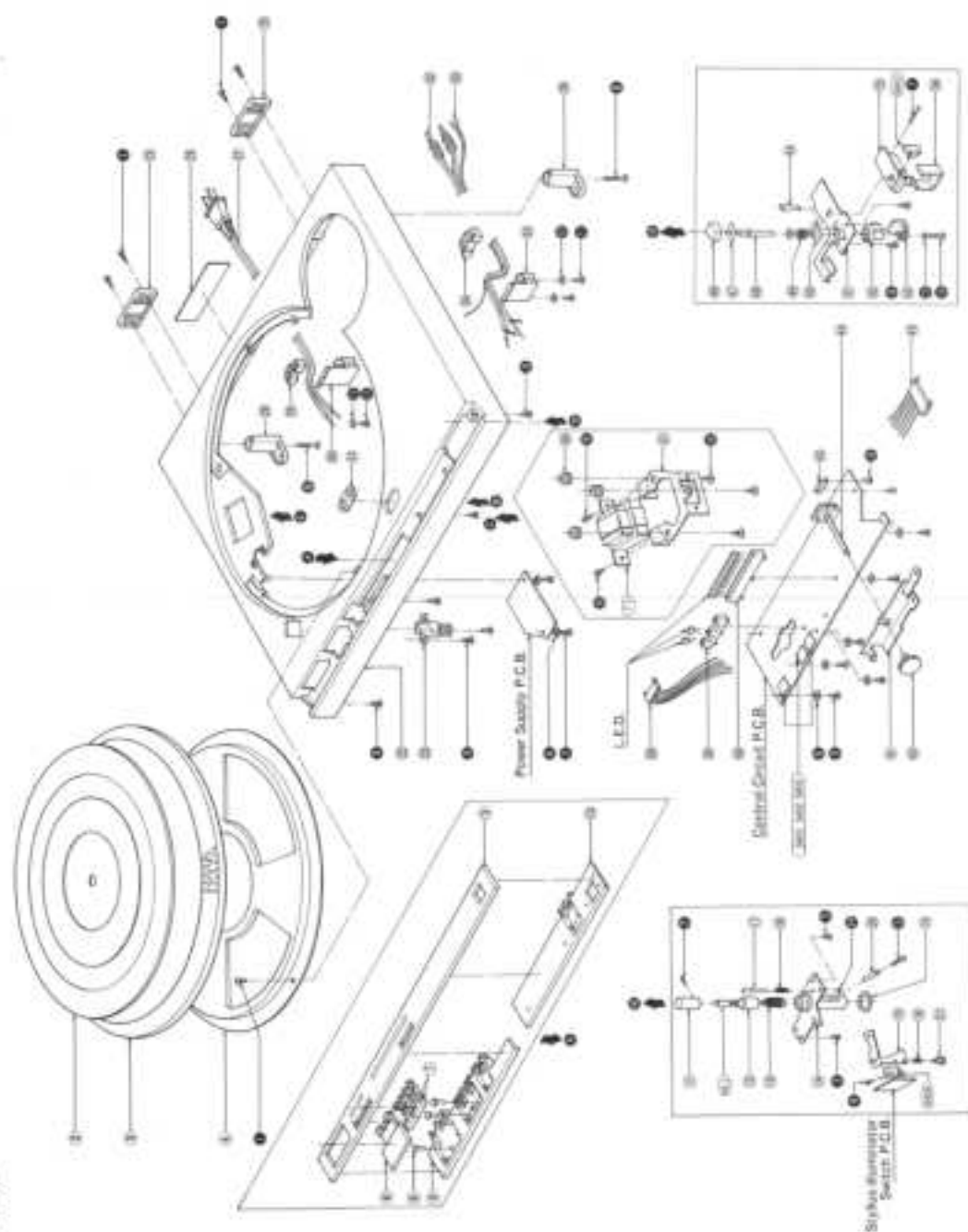
SL-1800MK2 SL-1800MK2



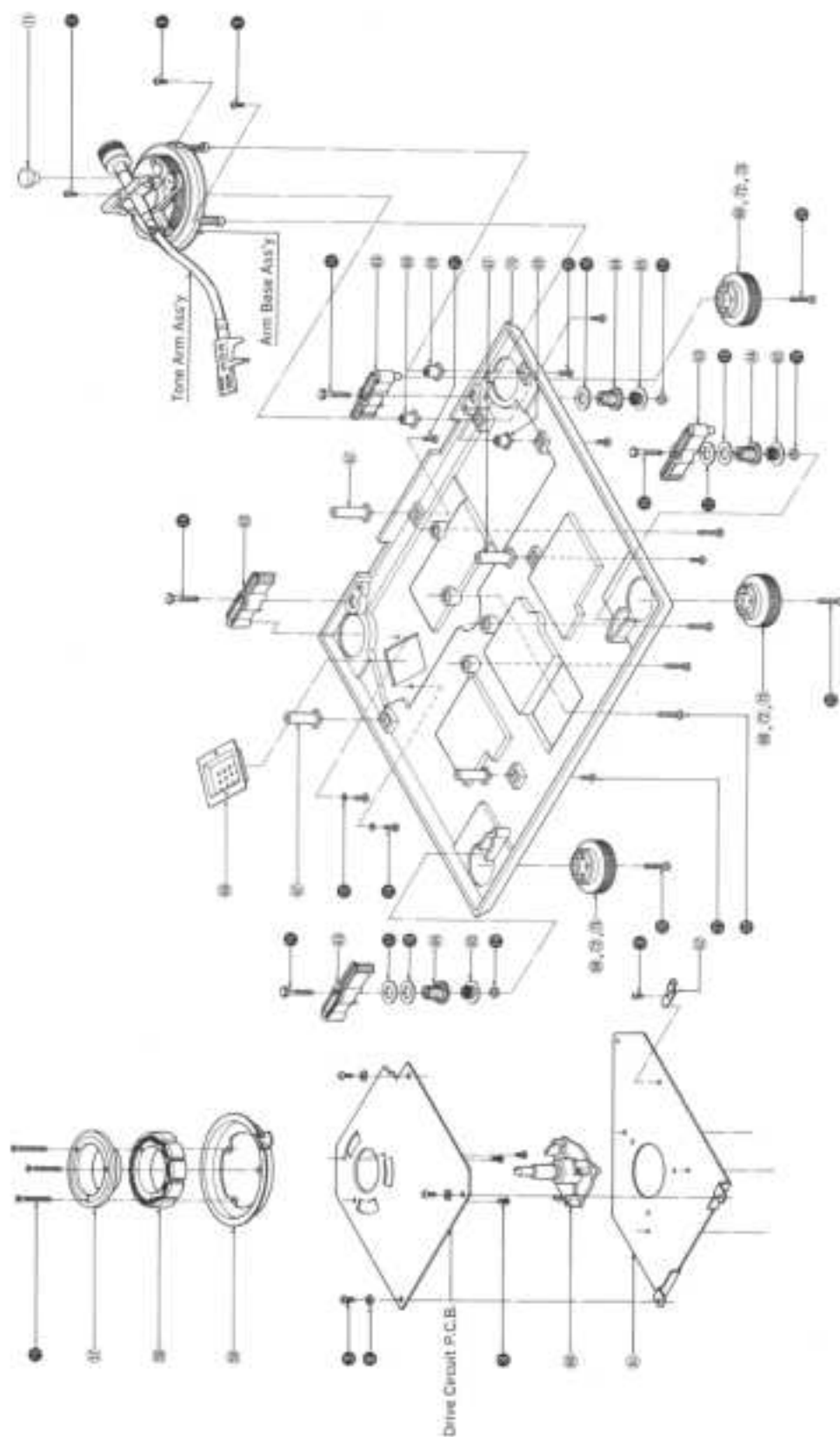
Pin	Symbol	Description	Pin	Symbol	Description
1	1	V _{CC}	16	16	V _{CC}
2	2	V _{CC}	17	17	V _{CC}
3	3	V _{CC}	18	18	V _{CC}
4	4	V _{CC}	19	19	V _{CC}
5	5	V _{CC}	20	20	V _{CC}
6	6	V _{CC}	21	21	V _{CC}
7	7	V _{CC}	22	22	V _{CC}
8	8	V _{CC}	23	23	V _{CC}
9	9	V _{CC}	24	24	V _{CC}
10	10	V _{CC}	25	25	V _{CC}
11	11	V _{CC}	26	26	V _{CC}
12	12	V _{CC}	27	27	V _{CC}
13	13	V _{CC}	28	28	V _{CC}
14	14	V _{CC}	29	29	V _{CC}
15	15	V _{CC}	30	30	V _{CC}

SL-1800MK2 SL-1800MK2

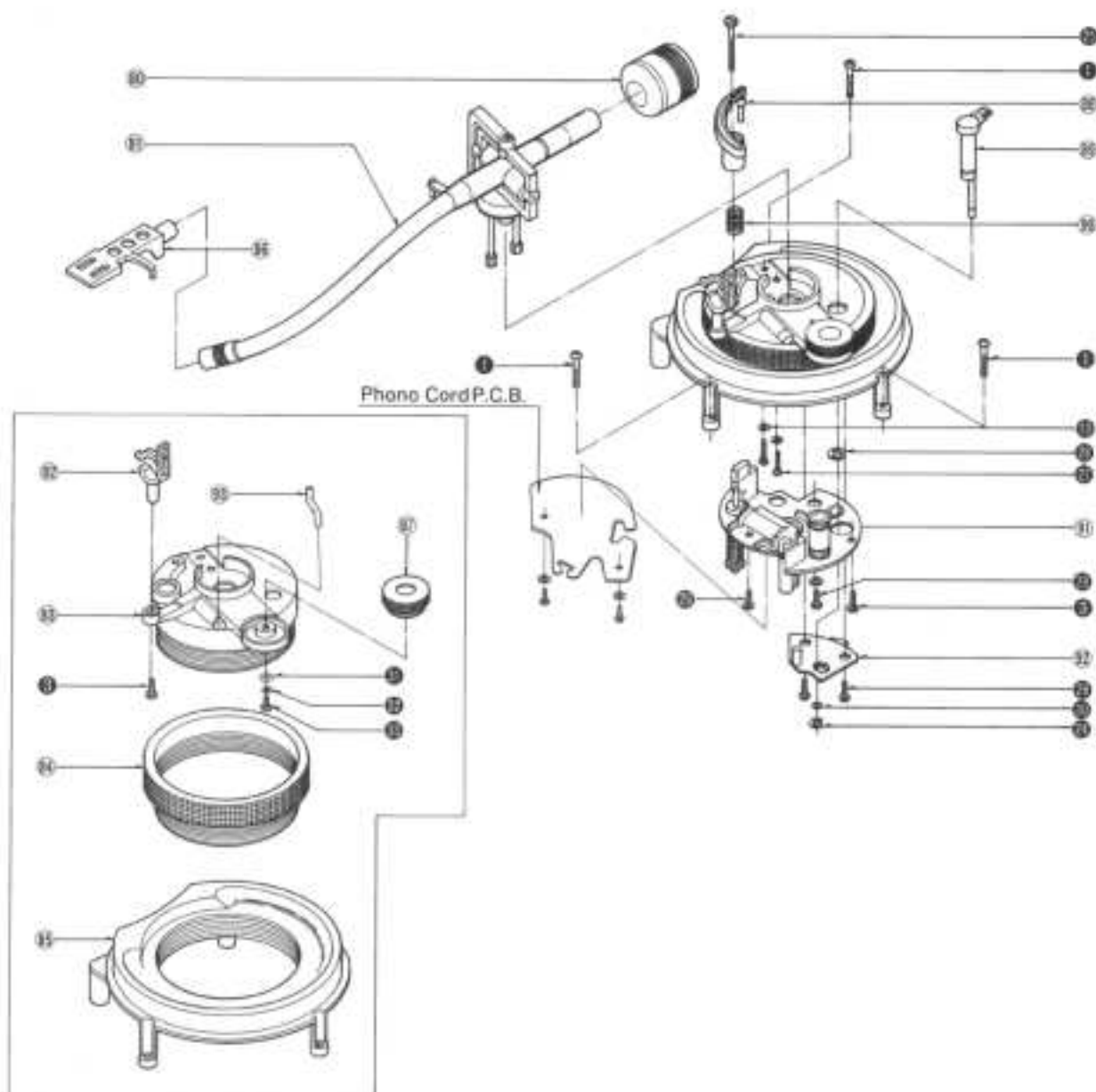
EXPLODED VIEWS



■ 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. Δ indicates that only parts specified by the manufacturer be used for safety.
3. SL-1800MK2 (M) $\rightarrow$ [M], SL-1800MK2 (MC) $\rightarrow$ [MC]

Ref. No.	Part No.	Part Name & Description
CABINET and CHASSIS PARTS		
1	SFAD172-01E	Dust Cover
2	SFTG172-01	Turntable Mat
3	SFTG172-01Z	Turntable
4	SFUM172-05	Cover, Turntable
5	SFUM162-01	Panel, Operation
6	SFCT162-01	Button, Start/Stop Switch
7	SFCT172-03	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	SFAB172-02	Base, Drive
13	SFQA172-01	Spring, Drive Base
14	SFUP172-01E	Bracket, Plate Assembly
15	SFUP172-02	Plate, Lock Operation
16	SFQA001-02	Spring, Lock Operation Plate Pin
17	SFX172-01	Pin, Lock Canceler
18	SFQA020-01	Spring, Lock Canceler Pin
19	SFJZ172-02	Rubber
20	SFXD172-01	Pin, Guide
21	SFXJ172-05	Pin, Lock Operation Plate Mfg
22	SFAC182-01	Cabinet
23	SFUM130-01	Cover, Neon
24	SFAT172-01A	Hinge Ass'y
25	SFUM170-07	Case, Hing Ass'y
26 [M]	SFNN182MD1	Name Plate
26 [MC]	Δ SFNN182CD1	Name Plate
27	RAABYA	AC Cord
28	SFAZ172-01	Supporter, Insulator
29	SFUM170-06	Spacer, AC Cord
30	SFUM170-05	Clamp, AC Cord
31	SFUM172-04	Ornament, Stylus/Illuminator
32 [M]	SFCH360MD1	Phono Cord
32 [MC]	SFCH028-01	Phono Cord
33	SFEL028-01E	Ground Wire
34	SFUM170-06	Spacer, Phono Cord
35	SFUM170-11	Clamp, Phono Cord
36	SFGC132-01	Spacer (Rubber), Power Transformer Bracket
37	SFUP132-03	Bracket, Power Transformer
38	SFJZ172-02E	Connector, 7 Pin
39	SFUM170-10	Spacer (A), Speed Selector L.E.D.
40	SFUM172-08	Spacer (A), Speed Selector L.E.D.
41	SFUP172-06	Bracket, Pitch Control Knob Plate
42	SFCT172-04	Knob, Pitch Control
43	SFUP132-01	Bracket, Control Circuit P.C.B.
44	SFUP172-08	Bracket, Volume Shift
45	SFQJ172-03E	Connector, 8 Pin
46	SFCT172-01	Button, Power Switch
47	SFUT172-03	Spacer, Power Switch Button
48	SFXJ172-03	Shift, Power Switch Button
49	SFQA172-02	Spring, Power Switch
50	SFUP172-04	Supporter, Power Switch Plate
51	SFUP172-02E	Bracket, Power Switch Mfg Plate Ass'y
52	SFUM001-11	Car, Power Switch
53	SFUM130-03	Car, Power Switch
54	SFUP001-03	Bracket, Power Switch
55	SFUM132-05	Holder, Power Switch
56	SFUM132-06	Holder, Power Switch
57	SFMOG20-01	Cover, Stator Frame Ass'y
58	SFMOG20-31A	Stator Frame
59	SFMA172-01E	FG Detector Coil Ass'y
60	SFMA202-01Z	Shift, Stator Frame Ass'y
61	SFUP172-05	Bracket, Stator Frame Mfg Plate
62	SFUP172-08	Bracket, Drive P.C.B. Ass'y
63	SFUM172-06	Insulator (A)
64	SFQA170-01	Rubber, Insulator
65	SFQC170-01	Spring, Insulator
66	SFUP132-01	Cover, Power Transformer
67	SFUM172-12	Spacer, Clamping
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)

Ref. No.	Part No.	Part Name & Description
73	SFJZ172-01	Felt, Insulator
TOPE ARM and ARM BASE		
80	SFPMG17201E	Balance Weight Ass'y
81	SFPAH18201E	Tone Arm Ass'y
82	SFPR17201E	Arm Rest
83	SFPR17203	Arm Base
84	SFPR17201E	Ring, Arm Base Operation
85	SFPR17201	Bracket, Arm Base
86	SFPC10001E	Head Shell
87	SFPAH17206	Knob, Anti-Skate Force Control
88	SFPR17202K	Lift Ass'y
89	SFPR17202	Knob, Arm Base Lock
90	SFQA020-03	Spring, Lift Ass'y
91	SFPAH18201E	Tone Arm Flaring Plate Ass'y
92	SFPR17202K	Plate, Lock Position Fix
93	SFPAH13201	Knob, Arm Lift
94	SFJZ172MD1	Supporter, Power Transformer Read
SCREWS, WASHERS, NUT and CIRCLIPS		
95	XTN3-88F2	Screw
96	XSN17-3FY	Screw
97	XTN3-88	Screw
98	XSN2-8	Screw
99	XSN3-14S	Screw
100	XWG2	Washer
101	XTN3-168	Screw
102	XTN4-208	Screw
103	XTN4-108	Screw
104	SFXD132-02	Screw
105	XTN3-108F2	Screw
106	XWG3F2	Washer
107	XWA36	Washer
108	XSN3-108	Screw
109	SFXD020-02	Screw
110	XVQAC30	Bolt
111	SFXD172-01	Washer
112	SFXD172-02	Washer
113	SFXD170-02E	Nut
114	XTN4-458	Screw
115	KTVA-148FN	Screw
116	XTW3-258	Screw
117	XTN4-128	Screw
118	XUC25FT	Circlip
119	SFXD020-1	Screw
120	XUC3F1	Circlip
121	XSN3-88	Screw
122	XTW3-88	Screw
123	XTV3-68FN	Screw
124	XWGA10EW	Washer
125	SFPR17201	Washer
126	XWG26	Washer
127	XTN26-68	Screw
ACCESSORIES		
A1 [M]	SFNU182MD1	Instruction Book
A1 [MC]	SFNU182CD1	Instruction Book
A2	SFWE212-01	Adapter, 45 r.p.m.
A3	SFPAH3303	Nut, Cartridge
A4	SFPRW0001	Washer, Head Shell
A5	SFC2V8801	Screw, Cartridge
A6	SFPRV9801	Screw, Cartridge
A7	SFVF05A06	Polyethylene Bag
A8	SFPR172-01	Overhang Gauge
A9	SFPR20501	Sheet Weight
A10	SFVF05A06	Polyethylene Bag
PACKINGS		
P1 [M]	SFHP182MD1	Carton
P1 [MC]	SFHP182CD1	Carton
P2	SFHH172-01	Pad, Front
P3	SFHH172-02	Pad, Rear
P4	SFHD172-01	Pad, Top
P5	SFHD172-02	Pad, Turntable
P6	SFYH00X60	Polyethylene Cover, Turntable Unit and Dust Cover
P7	SFYH00X45	Polyethylene Cover, Turntable