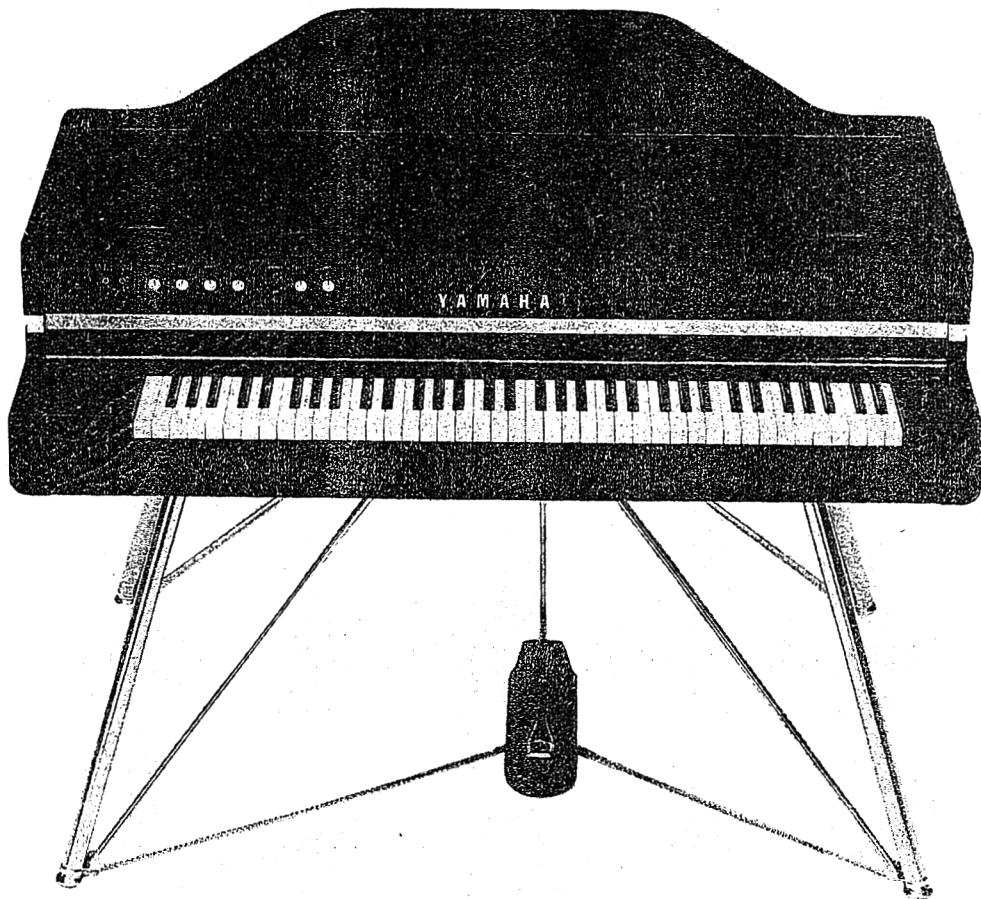




YAMAHA

**ELECTRIC GRAND
CP-70B**



SERVICE MANUAL

●CONTENTS 目次

General Specifications / 仕様	2
Coding Guide / サービスマニュアルを読む前に	2
Unit Layout / ユニット配置図	3
Assembly Procedures / 組み立て手順	4
Disassembly Procedures / 分解手順	8
Wiring / ワイヤリング	9
Circuit, Circuit Board / 各シートの回路図・シート図	11
1. TR Circuit Board / TRシート	11
2. PS Circuit Board / PSシート	15
Tuning the CP-70B / CP-70Bの調律	16
Cord percussing mechanism / 打弦機構	17
Tone adjustment procedures / 整調手順	23
Over-all Circuit Diagram / 総回路図	24
Block Diagram / ブロックダイアグラム	25

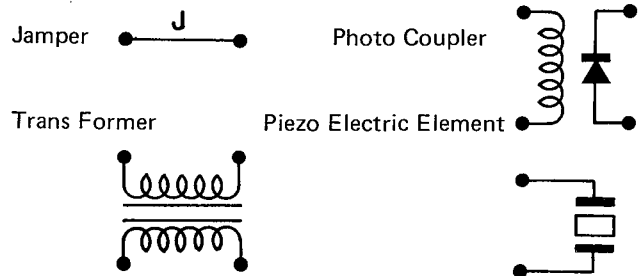
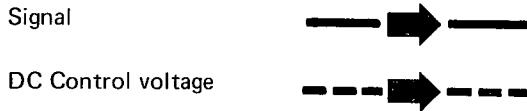
● GENERAL SPECIFICATIONS 仕様

1. Keyboard	73 keys (6 octaves 8E~80E)	9. Rated voltage	With AC adaptor (GA50061) AC 100V 50/60 Hz
2. Sound generating method	Cord striking method	10. Rated frequency	50/60 Hz
3. Action	GP action	11. Rated power consumption	With AC adaptor (GA50061) 2.5 W.
4. Hammer	Rubber (urethane) + artificial leather	12. Outer covering	Suitcase style (separatable to upper and lower parts)
5. Pickup	Piezo-electric elements 73 nos. Independent pickup system		Upper body Leather lined (1296 x 901 x 173) (mainly cord, damper and electrical system)
6. Control, effect	Resistor (sound volume control)		Lower body Leather lined (1290 x 636 x 245) (mainly action, key board) (Lower body and top lid case can accommodate legs, stay and pedal)
	Tone control BASS, MIDDLE, TREBLE	13. Outer dimensions	Overall width 1296 mm
	Tremolo effect TREMOLO SW		Overall depth 1045 mm
	SPEED $0.8 \pm 0.5 \sim 10 \pm 1$ Hz		Overall height 946.5 mm
	continuously variable		Gross weight As musical instrument, 108 kg
	DEPTH more than 40% max, less than 15% min.		(upper body 68 kg, lower body 62 kg)
7. Pedal	Damper pedal		
8. Others	PATCH OUT -20 dBm 600 Ω) Unbalanced		
	PATCH IN -20 dBm 100 k Ω)		
	Power SW		
	Pilot lamp		
	Line out (2 nos.) -20 dBm 600 Ω Balanced		
	Jack out (2 nos.) -20 dBm 600 Ω Unbalanced		

(Note) Power amplifier and speaker are not built-in.

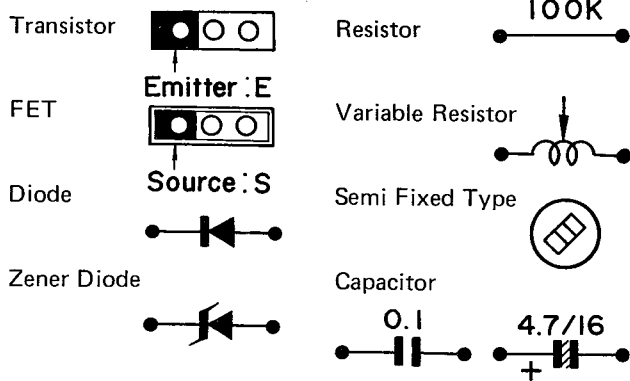
● CODING GUIDE サービスマニュアルを読む前に

1. IDENTIFICATION OF SIGNAL SYSTEM IN THE CIRCUITS SIGNAL



2. IDENTIFICATION OF CIRCUIT BOARD PATTERN DRAWING AND WIRING

1. Circuit board pattern drawings are wholly viewed from parts side.
2. Parts identification on circuit board pattern drawing.

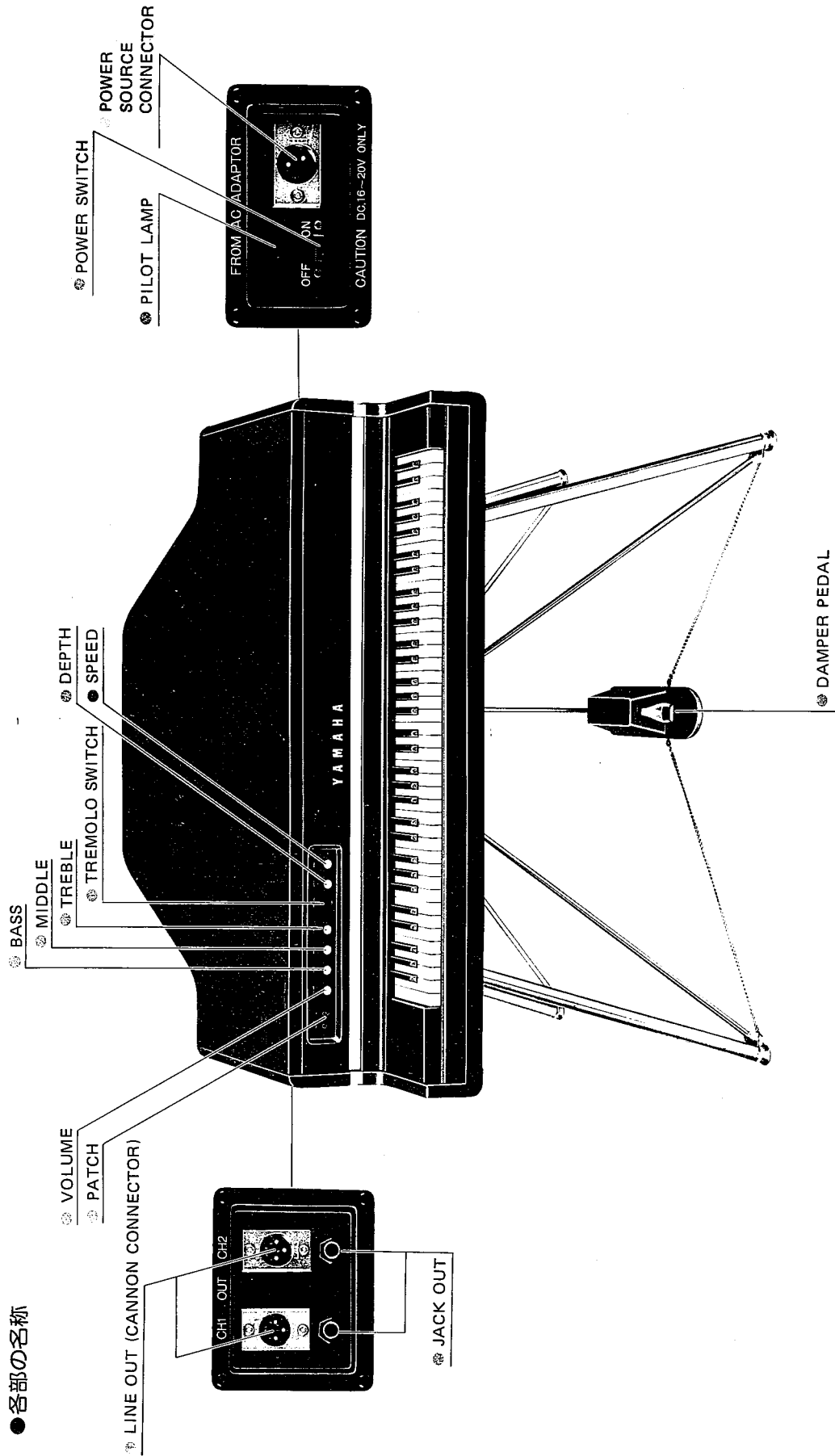


3. IDENTIFICATION OF WIRING MATERIALS

1. Color identification (provided that abbreviation only is used in the pattern drawing)

BL (black)	YE (yellow)
BR (brown)	GR (green)
RE (red)	BE (blue)
OR (orange)	WH (white)
GG (grass green)	TR (transparent)
SB (sky blue)	J (jumper)
PK (pink)	
VI (violet)	
GY (gray)	

● UNIT LAYOUT ユニット配置図



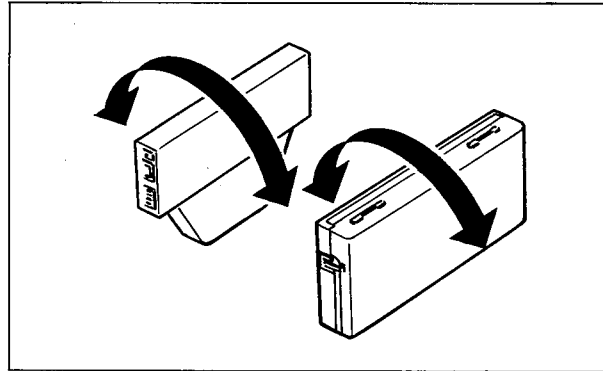
●各部の名称

● ASSEMBLY PROCEDURES 組み立て手順

▼ Caution ご注意

1. The model comes in two parts. If they are stood apart separately, they may topple over. This can be dangerous.

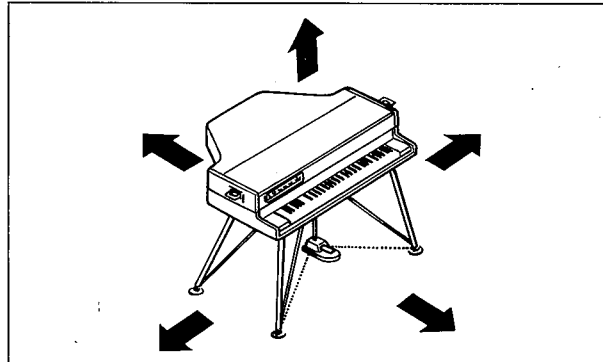
本機を分離し、立てたまま放置すると、転倒することがあり危険です。



2. If the model is moved with the damper pedal attached, the function of the pedal may be impaired. Fully assemble the model, move it to its installation location and then attach the pedal.

ダンパーペダルをつけたままの移動は、ペダル機能を損なうことがあります。

ペダルは、最終セット位置へ移動後取りつけてください。



3. The special accessory AC adaptor of this model is not interchangeable with power cords which you can buy in electrical appliance stores.

The internal electrical circuitry of the model may be damaged if you use any AC adaptor other than the one supplied. Take sufficient care in handling and storing this accessory cord.

本機に付属の専用 AC アダプターは、市販の電源コードとは互換性がありません。

専用 AC アダプター 以外を使用しますと内部電気回路が破損することがあります。取り扱い、保管には充分ご注意ください。

- * When operating the model, make sure that you use an AC adaptor which is suitable for the power line voltage of your area.

AC ADAPTORS

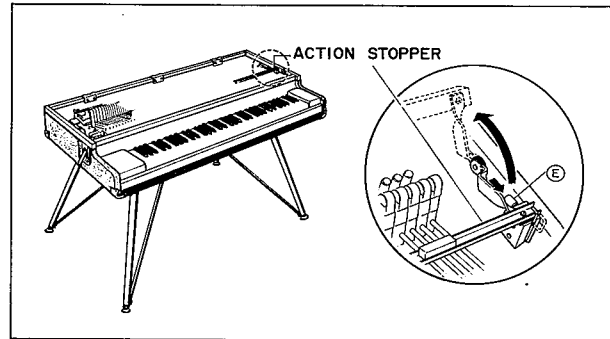
- JAPANESE MODEL : GA50061 AC100V 50/60Hz
- U.S. and CANADIAN MODEL : GA50063 AC120V 60Hz
- AUSTRALIAN and S. AFRICAN MODEL : GA50065 AC120V 50/60Hz with Primary Cord
- EUROPEAN MODEL : GA50066 AC220V 50Hz
- GENERAL EXPORT MODEL : GA50069 AC200V 50/60Hz with Plug (JAPANESE MODEL Type)

6. SETTING THE BOTTOM UNIT ON ITS FEET

First, set the bottom unit upright, and then depress the buttons (E) at either side. Remove the action stoppers. (Take out the horn jack cords (2) from the back of the hammer.)

下本体組みあがり

下本体を起こした後、左右両サイドのⒺボタンを押しアクションストッパーをはずします。(ホーンジャックコード×2をハンマー奥より取り出してください。)

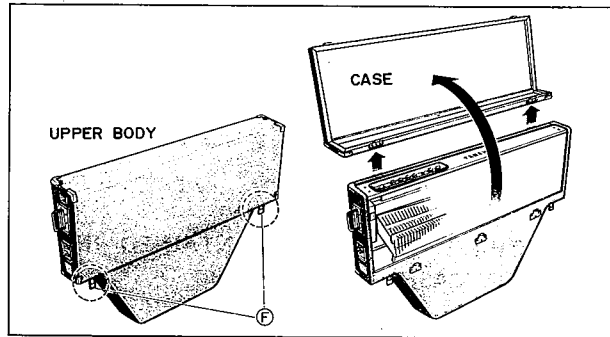


7. REMOVING THE TOP UNIT FROM THE CASE

Stand the top unit up with the YAMAHA identification plate face down, and remove hooks (F). Then set the case upright and detach the unit from the hooks.

上本体ケースの着脱

YAMAHAプレートを下に、上本体を立てⒻフックをはずします。ケースを起こし、引っかけ張番よりはみずします。

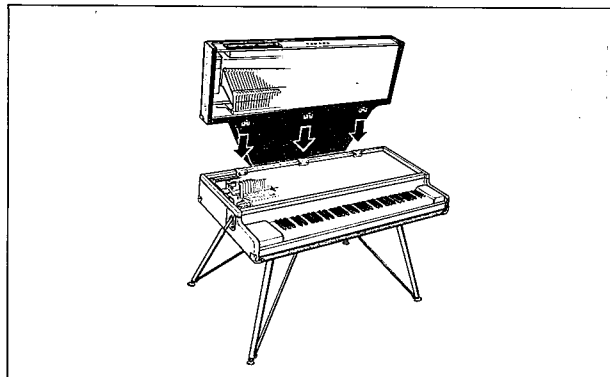


8. MOUNTING THE TOP UNIT

Lift the top unit up vertically, slide it into the hooks and mount.

上本体の取り付け

上本体を垂直に持ち上げ、引っかけ張番にはめ込み取りつめます。

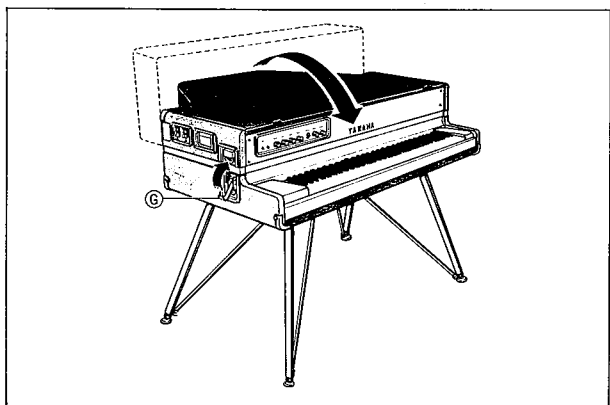


9. SECURING THE TOP UNIT

Lower the top unit down onto the keyboard, and secure it to the bottom unit with hooks (G) at either side.

上本体の装着

上本体を鍵盤側に倒し、左右両サイドのⒼフックで上・下本体をしっかり固定します。

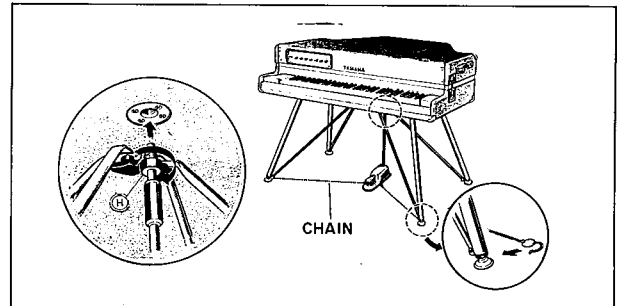


10. ATTACHING THE PEDAL

Insert the pedal rod securely into the pedal. Then align the bar with the pedal opening and secure it using ring (H). Finally, hook the chains into place.

ペダルの取り付け

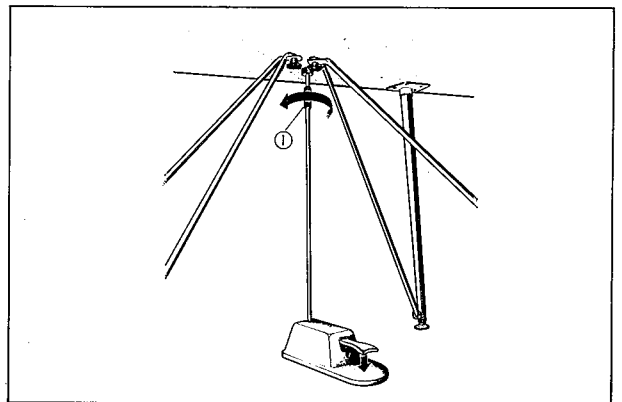
ペダルに、ペダル突き上げ棒をしっかりと差し込んだ後、突き上げ棒をペダル穴にあわせ⑨リングで固定します。最後にチェーンをフックしてください。

**11. ADJUSTING THE PEDAL**

Press the pedal down a little at a time with your foot and adjust with ring (I) so that there is no more play. (Play will increase if rotated in the direction of the arrow, and decrease if rotated in the opposite direction.)

ペダル調整

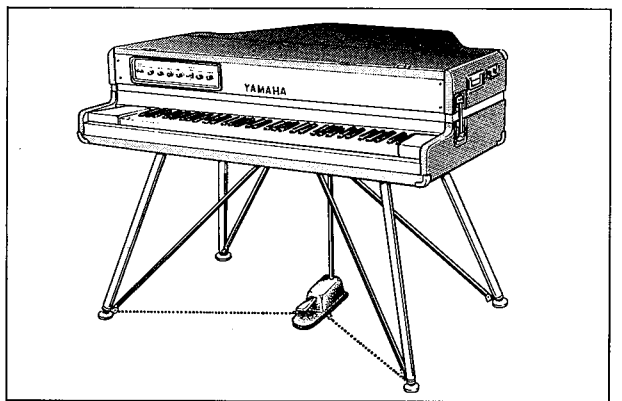
ペダルをこきざみに踏み、あそびがなくなるよう⑩リングで調整してください。(矢印方向に回せばあそびは増え、反対方向でなくなってきます。)

**12. COMPLETING THE ASSEMBLY**

Connect the AC Adaptor to the right panel and the output cord to the left panel. You have now completed the assembly. (Refer to BLOCK diagram for details on the connections.)

SET-UP完了

専用ACアダプターを右パネルへ、出力コードを左パネルへ接続すれば完了です。(接続についてはブロックダイアグラムをご覧ください。)



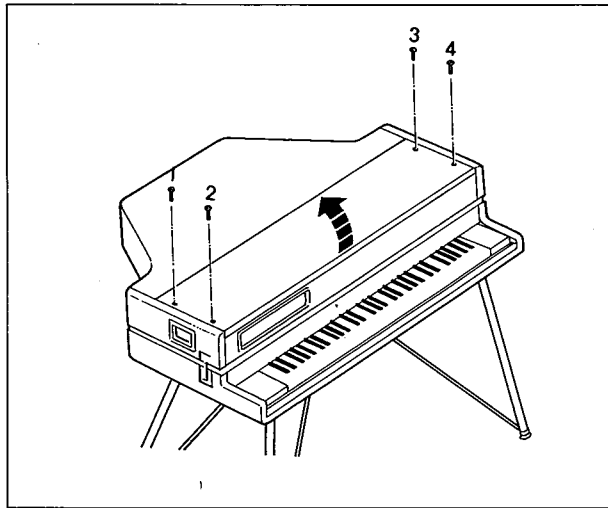
● **DISASSEMBLY PROCEDURES** 分解手順

1. OPENING THE TOP LID

Unscrew screws (1) to (4) and lift the top lid up.

上蓋の開き方

①～④のスクリューをはずし、上蓋を上を持ち上げます。

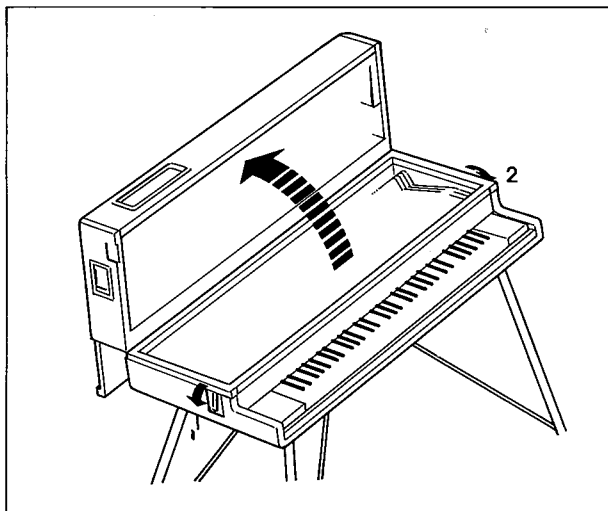


2. OPENING THE TOP UNIT

Release hooks (1) and (2) at the left and right, and lift the top unit up slowly.

上本体の開き方

①、②の左右フックをはずし、ゆっくり上を持ち上げます。

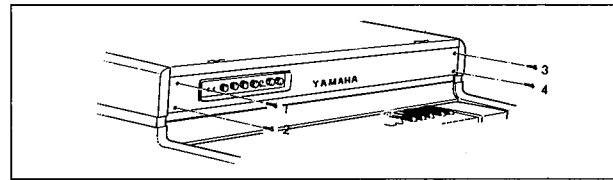


3. DETACHING THE CONTROL PANEL.

After opening the top lid, unscrew screws (1) to (4) and detach the control panel, taking care not to damage the wires.

コントロールパネルのはずし方

上蓋を開いた後①～④のスクリューをはずし、束線に注意しながら取りはずします。

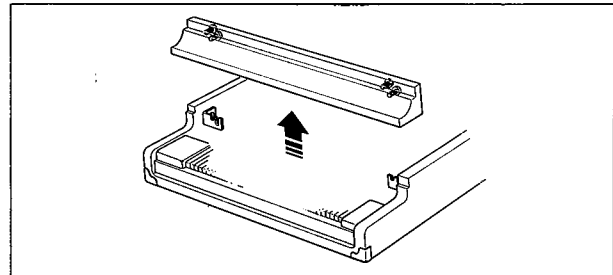


4. REMOVING THE ACTION

Loosen screws (1) to (4), draw the front panel up, and detach the action.

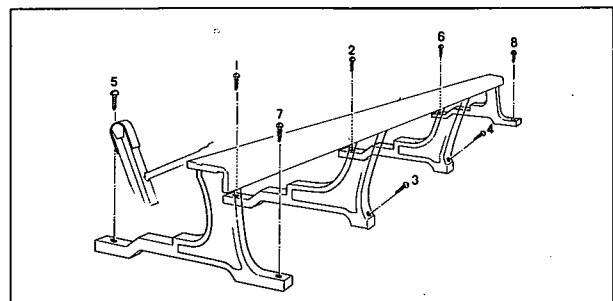
アクションのはずし方

①～④のスクリューを緩め、前板を上に取りはずします。

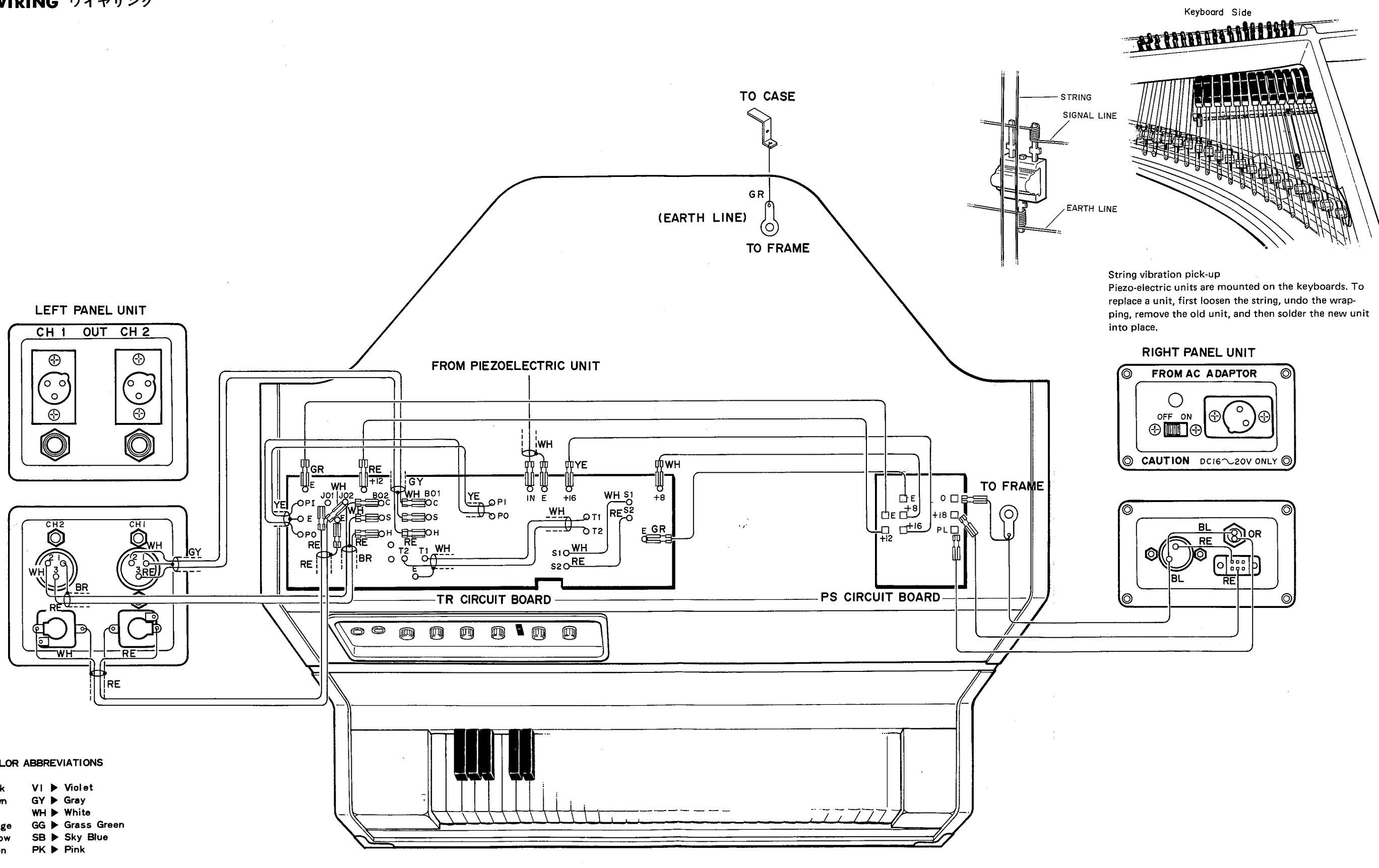


5. Next, remove the screws in order from (1) to (8). When attaching, tighten the screws in order from (8) to (1). (The removal of the action may affect the touch of the keyboard. Avoid this at all cost.)

次に①～⑧のスクリューを順に従ってはずします。取り付けの際は⑧～①の順でスクリューを締めます。(アクションの取りはずしは、鍵盤のタッチに影響を与えることがありますので極力避けてください。)



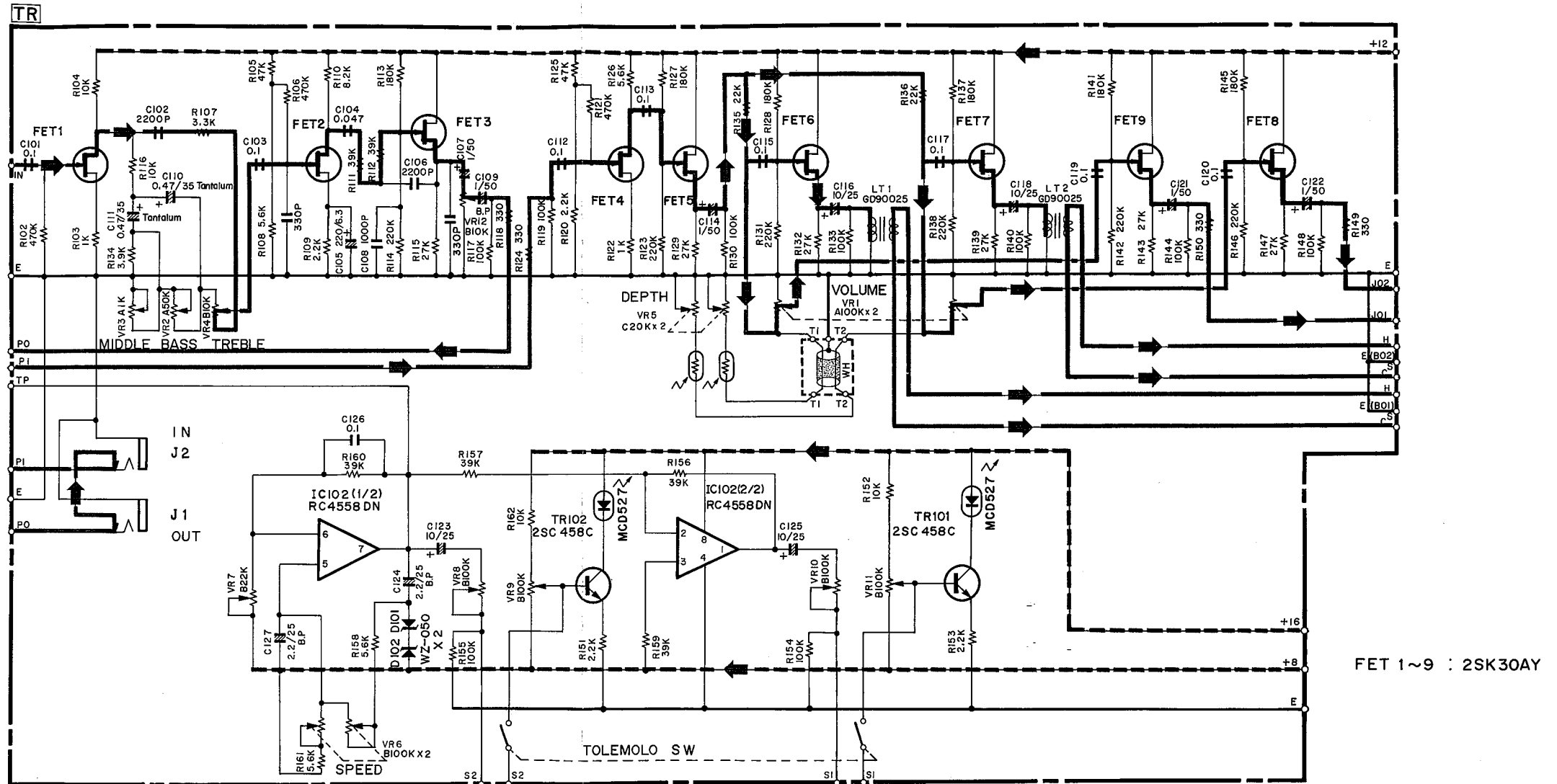
●WIRING ワイヤリング



String vibration pick-up
Piezo-electric units are mounted on the keyboards. To replace a unit, first loosen the string, undo the wrapping, remove the old unit, and then solder the new unit into place.

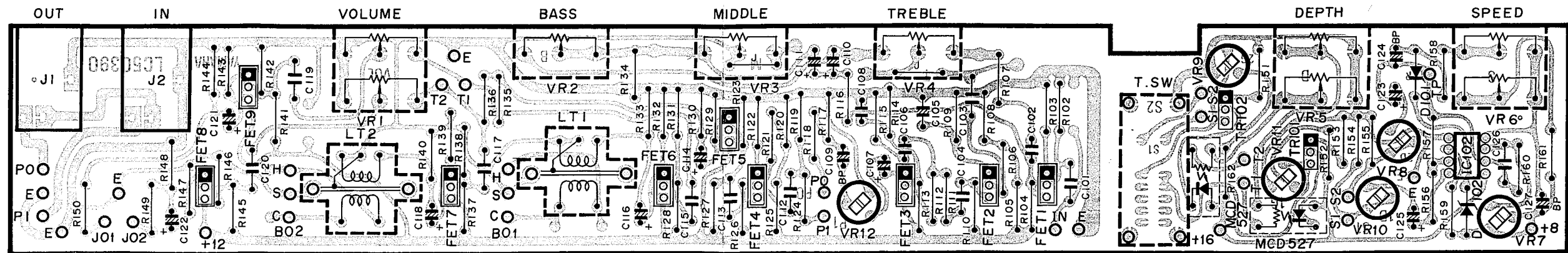
●CIRCUIT, CIRCUIT BOARD 各シートの回路図・シート図

1, TR CIRCUIT TRシート回路図



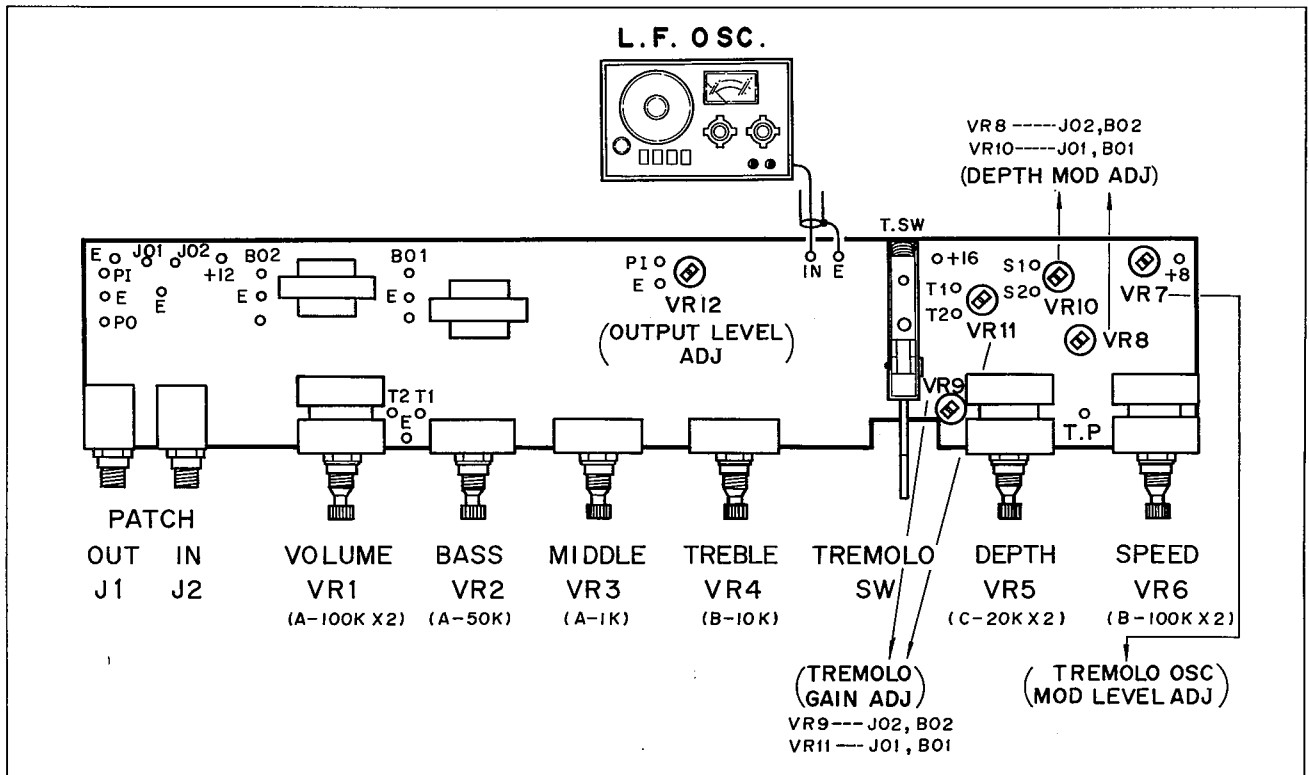
FET 1~9 : 2SK30AY

▼TR CIRCUIT BOARD シート図



▼TR Circuit Adjustments TRシートの調整

■ Measuring Adjusting 調整箇所



Measuring instruments used: low-frequency oscillator
digital voltmeter

使用測定器：低周波発振器
デジタルボルトメーター

1. Set the volume, bass, middle, treble, depth, and speed controls (VR1 to VR6) on the control panel to their rightmost positions, and then set the tremolo switch to OFF.
コントロールパネルのVOLUME, BASS, MIDDLE, TREBLE, DEPTH, SPEEDの各つまみ (VR1~VR6) は、最大 (時計方向一杯) に回し、TREMORO スイッチは OFF にセットしておきます。
2. Connect the low-frequency oscillator to IN terminal of the TR printed circuit board. Adjust VR12 (10KB) to obtain a -29.0 dBm output at the P0 terminal when a -32 dBm, 500 Hz signal is applied.
TRシートのIN 端子に低周波発振器を接続し、-32dBm 500Hzの信号を加えたとき、P0端子に-29.0dBmの出力が得られるようVR12(10KB)で調整します。

3. Adjust VR9 (100KB) and VR11 (100KB) so that a -31 dBm output signal is obtained at J01 and J02 terminals.
J01、J02端子にそれぞれ-31dBmの出力が得られるよう、VR9(100KB)、VR11(100KB)を調整します。
4. Check that an output signal of -16.5 ± 1.5 dBm is obtained at the J01 and J02 terminals when the frequency of the input signal is set to 50 Hz. Furthermore, check that an output signal of -18.5 ± 1.5 dBm is obtained at the B01 and B02 terminals.
入力信号周波数を50Hzとしたとき、J01、J02 端子の出力は -16.5 ± 1.5 dBmが得られることを確認します。また、B01、B02端子では -18.5 ± 1.5 dBmが得られることを確認します。

5. Set the bass (VR2) control to its leftmost position and check that the output at the J01 terminal is -34.5 ± 1.5 dBm.

BASS(VR2)ツマミを最小にし、TO1に -34.5 ± 1.5 dBmの出力が得られることを確認します。

6. Set the bass (VR2) control to its rightmost position again, and check that an output of -25 ± 1.5 dBm is obtained at the J01 and J02 terminals and also that an output of -25.5 ± 1.5 dBm is obtained at the B01 and B02 terminals when the frequency of the input signal is set to 5 kHz.

BASS(VR2) ツマミを最大に戻し、入力信号周波数を5KHzにしたとき、J01、J02端子の出力は -25 ± 1.5 dBm、またB01、B02端子では -25.5 ± 1.5 dBmが得られことを確認します。

7. Check that the output at the J01 terminals is -40 ± 1.5 dBm when the treble (VR4) control is set to its leftmost position.

TREBLE(VR4)ツマミを最小にしたとき J01端子の出力は -40 ± 1.5 dBmが得られることを確認します。

8. The output at the J01 terminal should be not more than -70 dBm when the frequency of the input signal is set to 500 Hz, the treble (VR4) control is returned to its rightmost position and when the horn jack is inserted into PATCH OUT (J1). Furthermore, check that the output at the J01 terminal is -31 ± 1 dBm when the other end is inserted into PATCH IN (J2).

入力信号周波数を500Hzとし、TREBLE(VR4) ツマミを最大に戻してホーンプラグをPATCH OUT (J1) に挿入したとき、J01端子の出力は -70 dBm 以下のこと。また、もう一端をPATCH IN(J2)に挿入したとき、J01端子には -31 ± 1 dBmが得られることを確認します。

9. The output at the J01 terminal should not be more than -70 dBm when the volume, bass, middle and treble (VR1 to VR4) controls are set to their leftmost positions. Furthermore, check that the output at the J01 terminal is not more than -70 dBm and that the output at the B91 terminal is -30.5 ± 1.5 dBm when the bass, middle and treble (VR2 to VR4) controls are set to their rightmost positions.

VOLUME, BASS, MIDDLE, TREBLE, (VR1~VR4) の各ツマミを最小にしたとき、J01端子の出力は -70 dBm 以下のこと、またBASS, MIDDLE, TREBLE (VR2~VR4)の各ツマミを最大にしたときJ01端子の出力が、 -70 dBm以下、B01端子では -30.5 ± 1.5 dBmが得られることを確認します。

10. Adjust VR7 (22KB) so that the output at TP (pin 7 of IC) is $+16.0$ dBm when the volume (VR1) control is returned to its rightmost position.

VOLUME(VR1) ツマミを最大に戻し、TP端子(IC の7番ピン) で $+16.0$ dBmの出力が得られるようVR7 (22KB)を調整します。

11. Adjust VR10 (100KB) and VR8 (100KB) so that the modulation fluctuates from more than 40% to less than 15% when the tremolo switch is set to ON, and the depth (VR5) control is varied between its rightmost and leftmost positions.

* The modulation frequency should be 10 ± 1 Hz.

TREMORO スイッチをONにし、DEPTH(VR5) ツマミを最大から最小に変化させたときの変調度が40%以上から15%以下まで変化するようVR10(100KB) およびVR8(100KB) を調整してます。

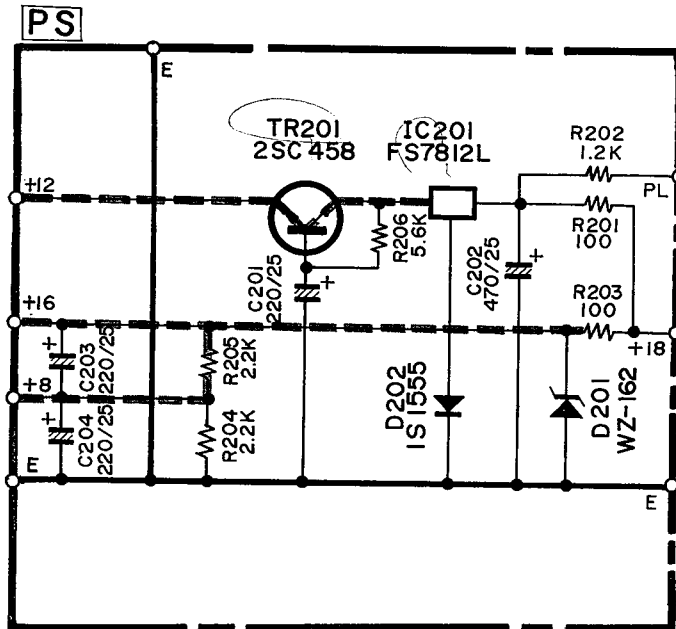
※このときの変調周波数は 10 ± 1 Hzであること。

12. Check that the modulation frequency is 0.8 ± 0.5 Hz when the speed (VR6) control is set to its leftmost position.

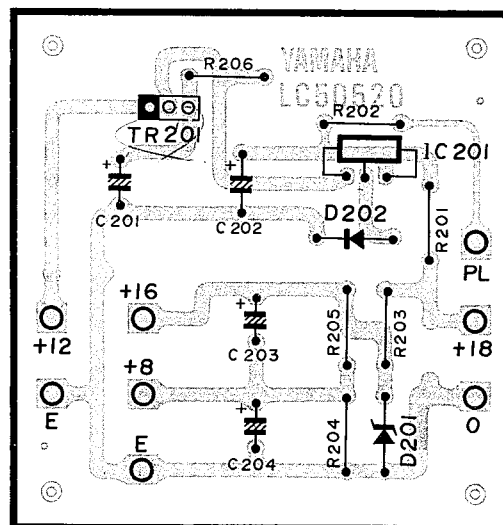
SPEED (VR6) ツマミを最小にしたとき、変調周波数は 0.8 ± 0.5 Hzであることを確認してください。

2, PS CIRCUIT BOARD PSシート(NA50032)

▼PS CIRCUIT PSシート回路図



▼PS CIRCUIT BOARDシート図



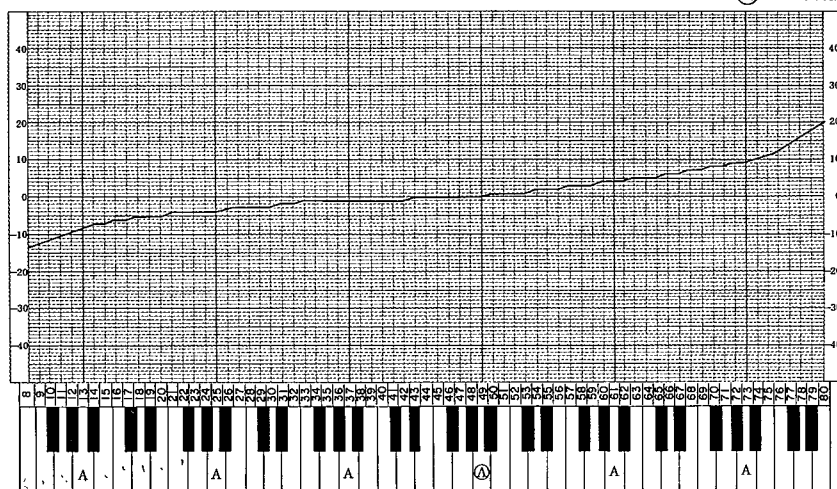
●TUNING THE CP-70B CP-70B の調律

49 $\text{\textcircled{A}}$ =440Hz

Key No.	Cent	PT-4 Octave SW	Key No.	Cent	PT-4 Octave SW	Key No.	Cent	PT-4 Octave SW	Key No.	Cent	PT-4 Octave SW
8E	-13	③	27B	-3	④	46F #	0	④	65C #	+5	⑥
9F	-12	③	28C	-3	④	47G	0	④	66D	+6	⑥
10F #	-11	③	29C #	-3	④	48G #	0	④	67D #	+6	⑥
11G	-10	③	30D	-3	④	49 $\text{\textcircled{A}}$	0	⑤	68E	+7	⑥
12G #	-9	③	31D #	-2	④	50A #	+1	⑤	69F	+7	⑥
13A	-8	④	32E	-2	④	51B	+1	⑤	70F #	+8	⑥
14A #	-7	④	33F	-2	④	52C	+1	⑤	71G	+8	⑥
15B	-7	④	34F #	-1	④	53C #	+1	⑤	72G #	+9	⑥
16C	-6	④	35G	-1	④	54D	+2	⑤	73A	+9	⑦
17C #	-6	④	36G #	-1	④	55D #	+2	⑤	74A #	+10	⑦
18D	-5	④	37A	-1	④	56E	+2	⑤	75B	+11	⑦
19D #	-5	④	38A #	-1	④	57F	+3	⑤	76C	+12	⑦
20E	-5	④	39B	-1	④	58F #	+3	⑤	77C #	+14	⑦
21F	-4	④	40C	-1	④	59G	+3	⑤	78D	+16	⑦
22F #	-4	④	41C #	-1	④	60G #	+4	⑤	79D #	+18	⑦
23G	-4	④	42D	-1	④	61A	+4	⑥	80E	+20	⑦
24G #	-4	④	43D #	0	④	62A #	+4	⑥			
25A	-4	④	44E	0	④	63B	+5	⑥			
26A #	-3	④	45F	0	④	64C	+5	⑥			

Tuning Curve of the CP-70B

49 $\text{\textcircled{A}}$ =440Hz



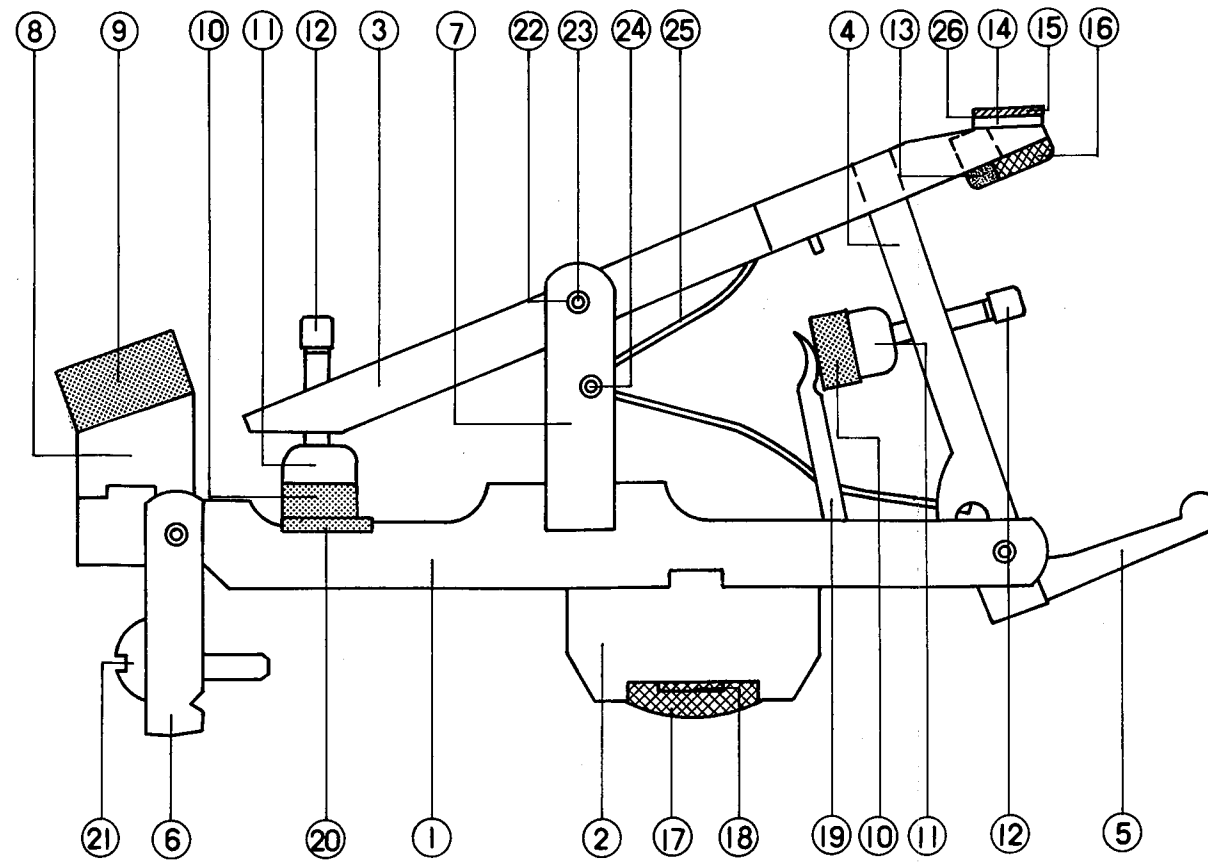
NOTE:

Because of the nature of the harmonics of a vibrating string, it is generally possible to have a string correctly tuned and still hear a "beat" when the string is sounded simultaneously with another tone one octave higher. This phenomenon may be more pronounced in the CP-70B due to its basic design concept aiming at the maximum portability.

The accompanying curve will be helpful when tuning.

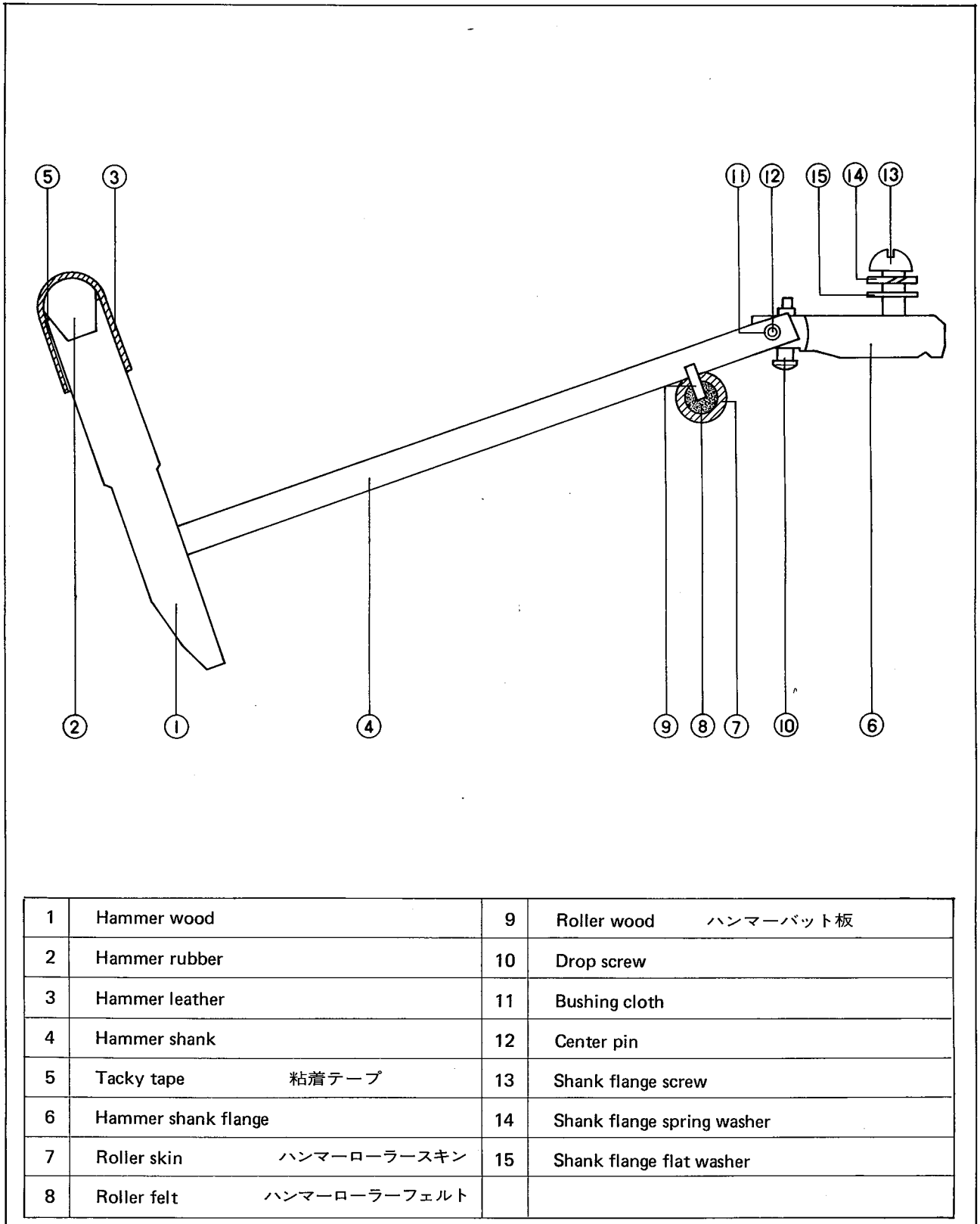
The data shown here is also applicable for CP-70.

2. WHIPPEN ASSEMBLY ウイペン(サポート)アッセンブリー

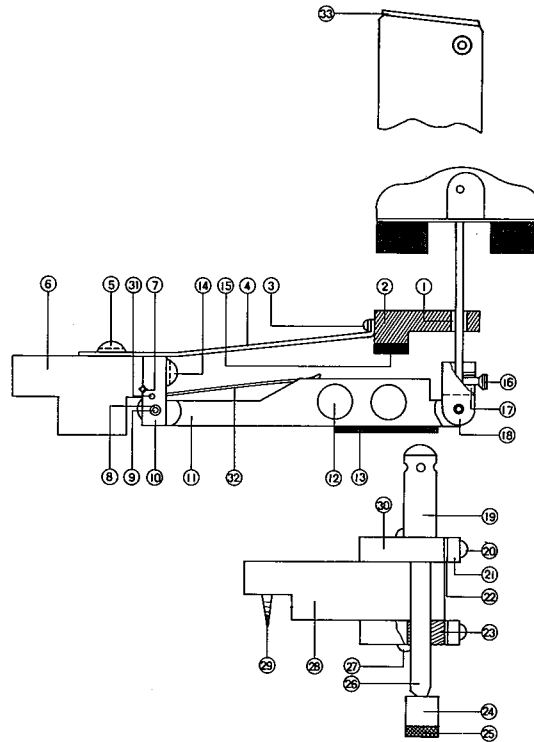


1	Whippen
2	Whippen heel
3	Repetition lever
4	Jack (large)
5	Jack (small)
6	Whippen flange
7	Repetition flange
8	Whippen block
9	Hammer shank stop felt
10	Jack button punching
11	Jack button
12	Jack screw
13	Repetition felt
14	Repetition skin
15	Repetition skin under felt
16	Repetition lever cloth
17	Whippen heel cloth
18	Whippen heel core ウイペン(サポート) ヒールアンダークロス
19	Jack stop spoon
20	Repetition stop felt
21	Whippen flange screw
22	Center pin bushing cloth
23	Center pin
24	Repetition spring bushing cloth
25	Repetition spring
26	Tacky tape 粘着テープ

3. HAMMER ASSEMBLY ハンマーアッセンブリー

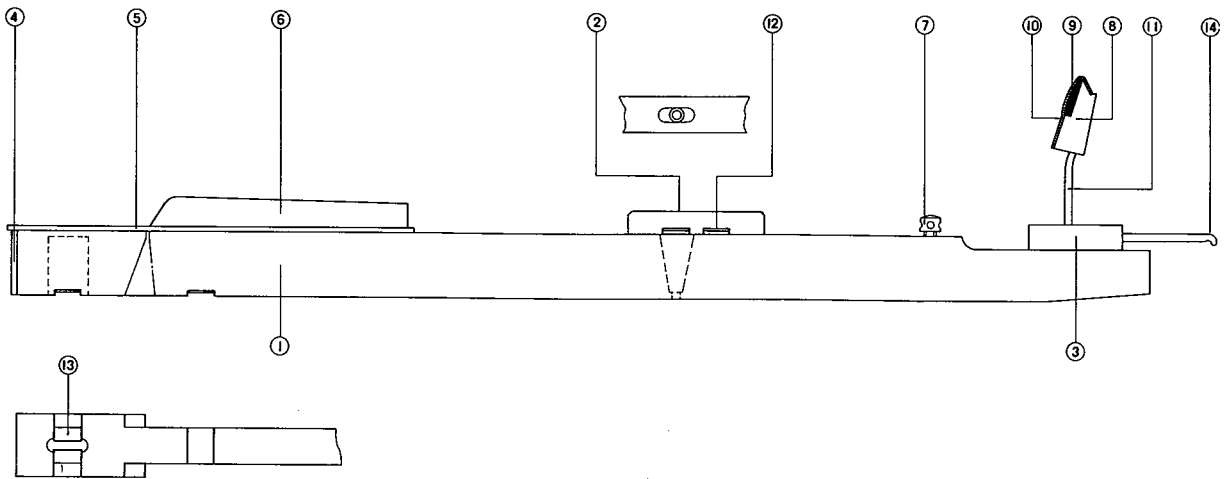


4. DAMPER LEVER ASSEMBLY ダンパーレバーアッセンブリー



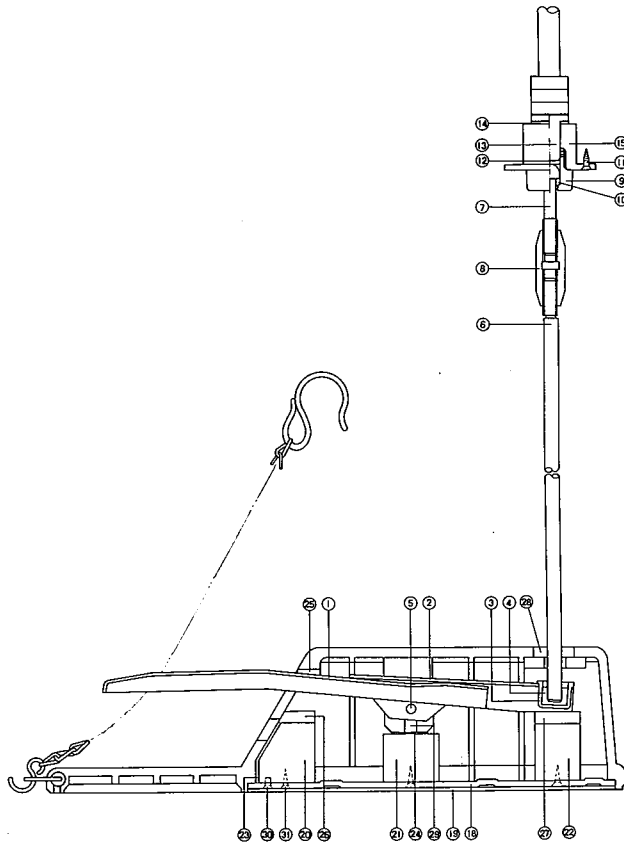
1	Damper wire guide cloth	18	Damper block
2	Damper stop rail	19	Damper capstan button
3	Damper stop rail fitting screw - 2	20	Guide rail attaching wooden screw
4	Damper stop rail fitting ダンパーストップレール金具	21	Guide rail attaching wood <small>ダンパーガイドレール付木</small>
5	Damper lever rail screw - 1	22	Guide rail bushing cloth - 2
6	Damper lever rail	23	Guide rail bushing cloth - 1
7	Flange guide wire	24	Damper button
8	Flange bushing	25	Damper button punching
9	Center pin	26	Damper lift wire
10	Damper lever flange	27	Guide rail attaching screw
11	Damper lever	28	Guide rail attaching wood
12	Lead 鉛	29	Guide rail attaching wooden screw
13	Damper lever felt	30	Guide rail
14	Damper lever flange attaching screw	31	Spring pin chord
15	Damper stop rail felt	32	Damper lever spring ϕ 0.7
16	Damper block socket screw	33	Stop rail spacer
17	Damper block socket		

5. KEY BOARD ASSEMBLY 鍵盤アッセンブリー



1	Key
2	Key button
3	Back check block
4	Key front covering
5	Key covering
6	Black key
7	Capstan screw
8	Back check
9	Back check felt
10	Back check skin
11	Back check wire
12	Balance pin bushing
13	Front pin bushing
14	Damper spoon

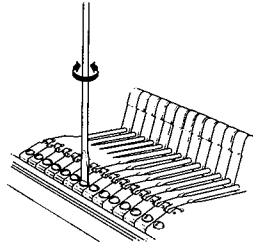
6. PEDAL ASSEMBLY ペダルアッセンブリー



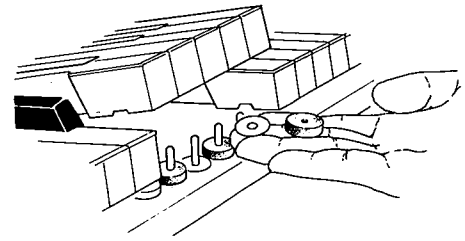
1	Pedal body	13	Pedal button	25	Pedal window felt
2	Pedal cover	14	Pedal button punching (large)	26	Pedal cushion (1)
3	Pedal cap	15	Pedal guide attaching screw	27	Pedal cushion (2)
4	Pedal rubber shaft ペダルゴム軸	16	Pedal box	28	Pedal cushion (3)
5	Pedal shaft	17	Pedal reinforcing fitting	29	Pedal bearing ペダル軸受
6	Lift rod 突上棒	18	Pedal button plate	30	Pedal bottom plate attaching screw
7	Lift rod ball bolt	19	Pedal button plate felt	31	Lift ball bolt guide skin
8	Lift rod link nut	20	Pedal attaching fitting (front)	32	Hook bolt
9	Pedal nut	21	Pedal attaching fitting (middle)	33	Hook (large)
10	Pedal nut punching	22	Pedal attaching fitting (back)	34	Hook (small)
11	Pedal guide	23	Pedal attaching fitting felt (1)	35	Pedal chain left
12	Pedal button punching (small)	24	Pedal attaching fitting felt (2)	36	Pedal chain right

● TONE ADJUSTMENT PROCEDURES 整調手順

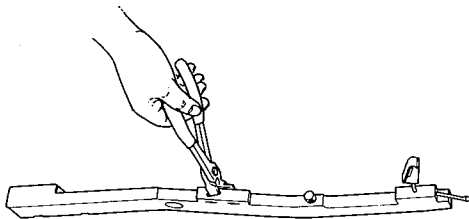
◎ Works content	Hammer spacing, cord adjustment
Purpose	To improve cord striking efficiency of hammer
Dimensions	
Used tools	Screw driver, glue, paper shank pliers



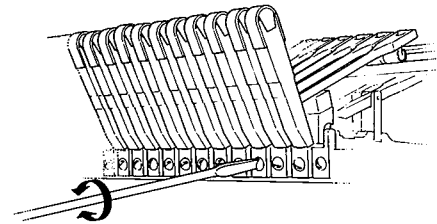
Works content	Key board depth adjustment
Purpose	To obtain correct touch
Dimensions	10 mm
Used tools	Scribing rule, front paper punching



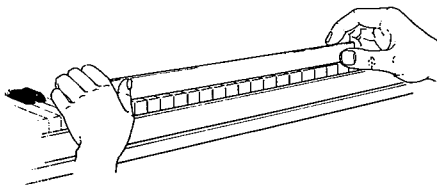
* Works content	Key board adjustment
Purpose	To smoothen the movement of key board
Dimensions	
Used tools	Key pliers, key hole pinch bar



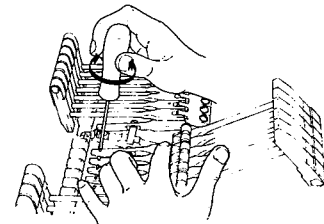
* Works content	Whippen alignment
Purpose	To eliminate loss of shank pushing-up
Dimensions	
Used tools	Screw driver



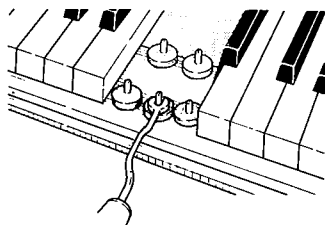
* Works content	Key board height adjustment
Purpose	To obtain correct touch by keeping correct dimensions
Dimensions	Surface of white key -- 64 mm from the shelf Black key -- 12 mm from the white key
Used tools	Levelling rule, scale, tweezers, balance paper punching



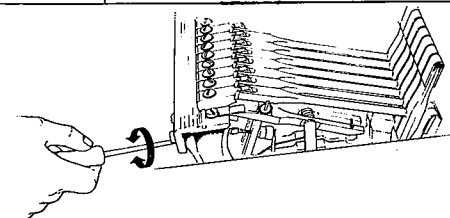
◎ Works content	Adjustment of up-and downward movement of jack
Purpose	To eliminate loss of key striking force together with ensuring smooth return of jack
Dimensions	0.1 mm - 0.2 mm
Used tools	Screw driver of jack



Works content	Key board spacing adjustment
Purpose	To prevent noise by aligning key board
Dimensions	
Used tools	Adjuster of oval key pin



◎ Works content	Back and forth movement of jack
Purpose	To eliminate loss of key striking force
Dimensions	
Used tools	Jack screw driver

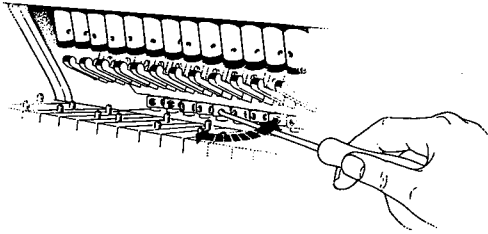


*..... Perform the work with the action released. (Ref. P.8 - 4)

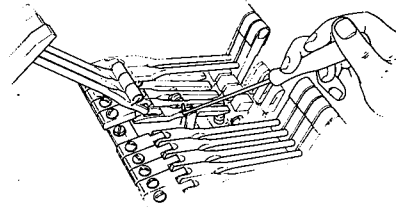
◎..... Perform with the upper unit released. (Ref. P.8 - 2)

● TONE ADJUSTMENT PROCEDURES 整調手順

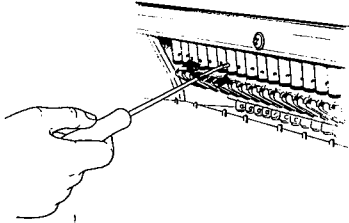
Works content	Hammer adjusting
Purpose	To make touch uniform by equalizing cord striking distance
Dimensions	40 mm
Used tools	Cord striking distance rule, button driver



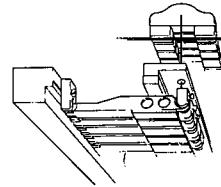
Works content	Spring adjustment of repetition lever
Purpose	To make touch uniform by ensuring correct return of jack and repetition lever
Dimensions	
Used tools	Spring corrector



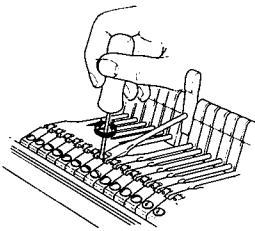
Works content	Hammer approach
Purpose	To obtain correct touch
Dimensions	Low-pitched sound 2.5 mm Middle-pitched sound 2.0 mm High-pitched sound 1.5 mm
Used tools	Button driver



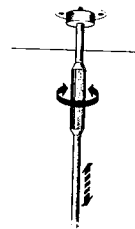
Works content	Damper finish
Purpose	To improve pedal effect and sound stop
Dimensions	
Used tools	Screw driver



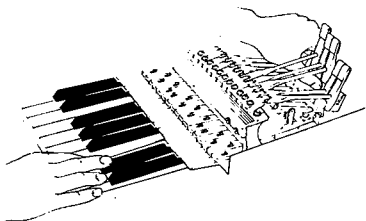
Works content	Hammer return
Purpose	To obtain correct touch
Dimensions	From closest point, 2 mm
Used tools	Repetition regulating screw driver



Works content	Pedal adjustment
Purpose	To improve pedal effect
Dimensions	
Used tools	



Works content	Hammer stop
Purpose	To facilitate the next cord striking quickly
Dimensions	Low 14 mm, Medium 13 mm, High 12 mm
Used tools	Rule

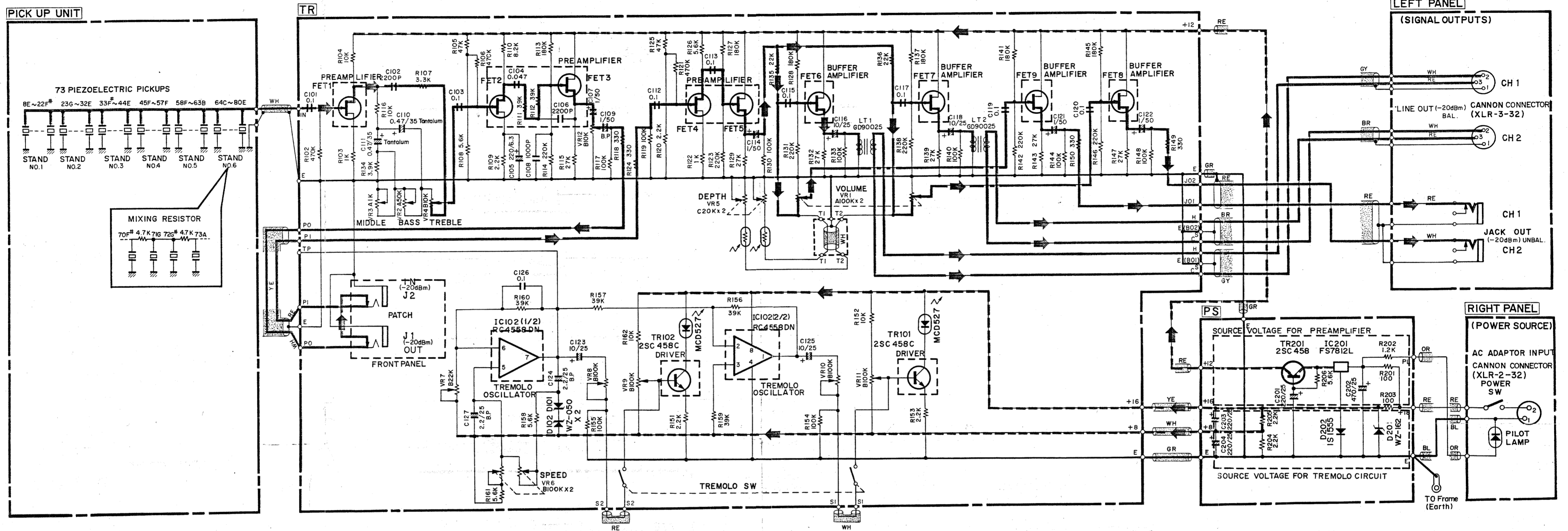


Works content	Overall inspection
Purpose	Uniformity of touch, sound stop
Dimensions	
Used tools	

※.....Perform the work with the action released. (Ref. P.8 - 4)
 ◎.....Perform with the upper unit released. (Ref. P.8 - 2)

CP-70B OVERALL CIRCUIT DIAGRAM

CP-70B 78 APR. (#5001-)

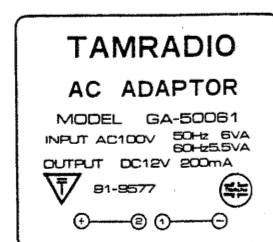


- | | | |
|-------------|------------------|----------------------|
| BL ▶ Black | VI ▶ Violet | SIGNAL SYSTEM
+ B |
| BR ▶ Brown | GY ▶ Gray | |
| RE ▶ Red | WH ▶ White | |
| OR ▶ Orange | GG ▶ Grass Green | |
| YE ▶ Yellow | SB ▶ Sky Blue | |
| GR ▶ Green | PK ▶ Pink | |
| BE ▶ Blue | | |

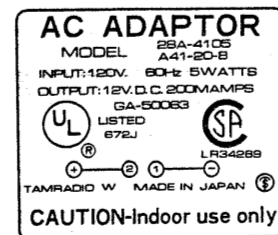
AC ADAPTOR'S NAME PLATES

NOTE:
Make sure to use the specified AC Adaptor as indicated hereby:

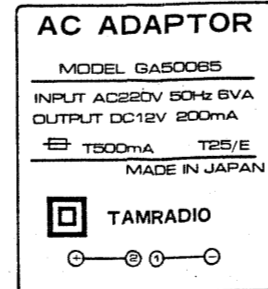
● JAPANESE MODEL



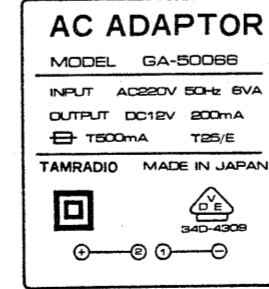
● U.S. and CANADIAN MODEL



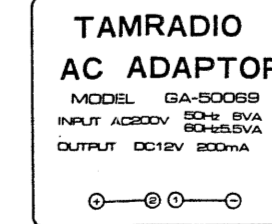
● AUSTRALIAN and S.AFRICAN MODEL



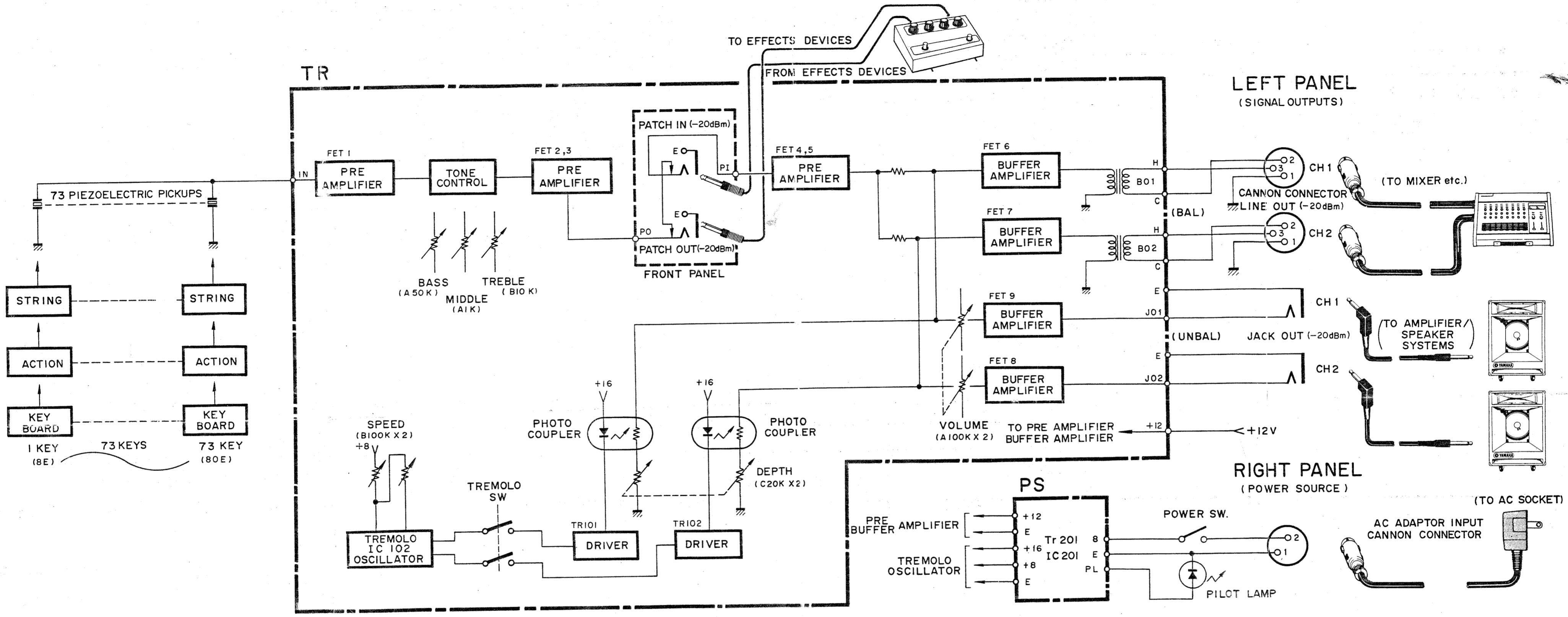
● EUROPEAN MODEL



● GENERAL EXPORT MODEL



CP-70B BLOCK DIAGRAM



NOTE:
 Make sure to use the specified AC Adaptor as indicated hereby:
 Power amplifier and speaker are not built-in.

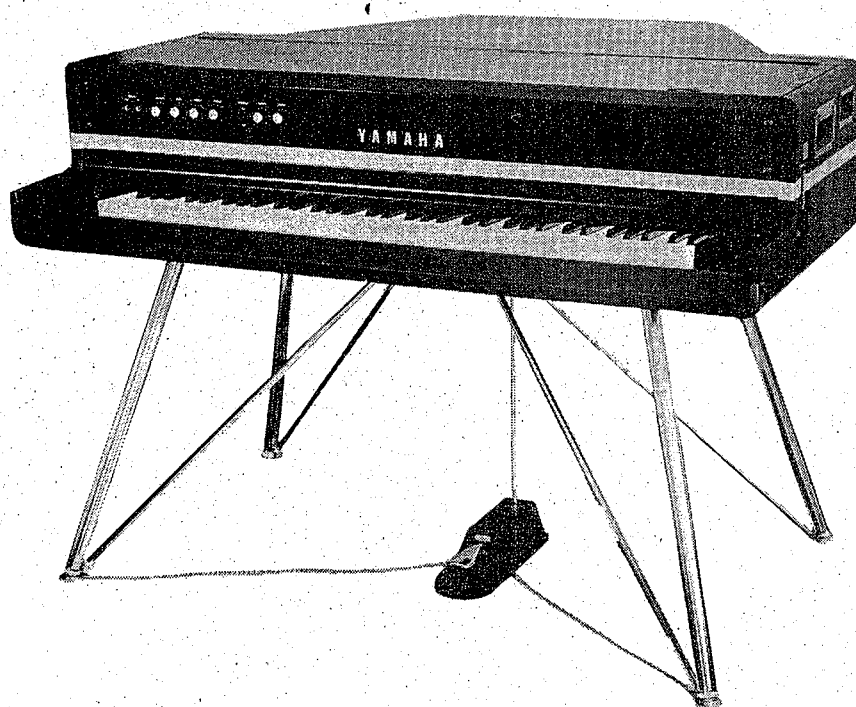
	AC ADAPTORS	
	INPUT VOLTAGE	
• JAPANESE MODEL	GA50061	AC 100 V 50/60 Hz
• U.S. and CANADIAN MODEL	GA50063	AC 120 V 60 Hz
• AUSTRALIAN, and SOUTH AFRICAN MODEL	GA50065	AC 220 V 50/60 Hz
• EUROPEAN MODEL	GA50066	AC 200 V 50 Hz
• GENERAL EXPORT MODEL	GA50069	AC 200 V 50/60 Hz

YAMAHA

ELECTRIC GRAND

CP-70B

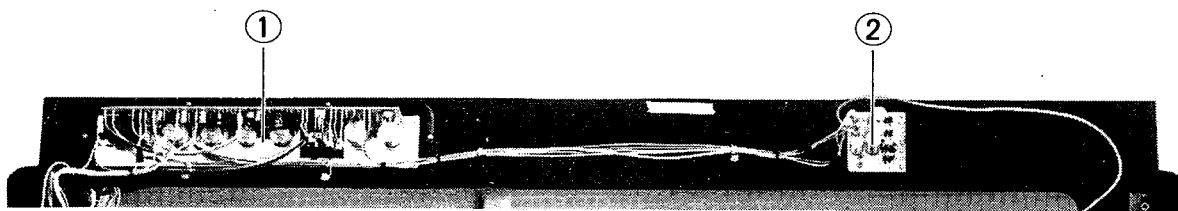
PARTS LIST



CONTENTS

1. Circuit Boards & Components (電気部品)	1
2. Whippen Assembly (サポート アッセン)	2
3. Hammer Assembly (ハンマー アッセン)	3
4. Damper & Damper Lever Assembly (ダンパーとダンパーレバーアッセン)	4
5. Key Board Assembly (鍵盤アッセン)	6
6. Rail Section (レール部分)	7
7. Frame Section (フレーム部分)	8
8. Pedal Assembly (ペダル アッセン)	10
9. Leg Section (脚 部分)	11
10. Upper Body & Upper Case (上体本及び上蓋)	12
11. Lower Body & Lower Case (下本体及び下蓋)	14

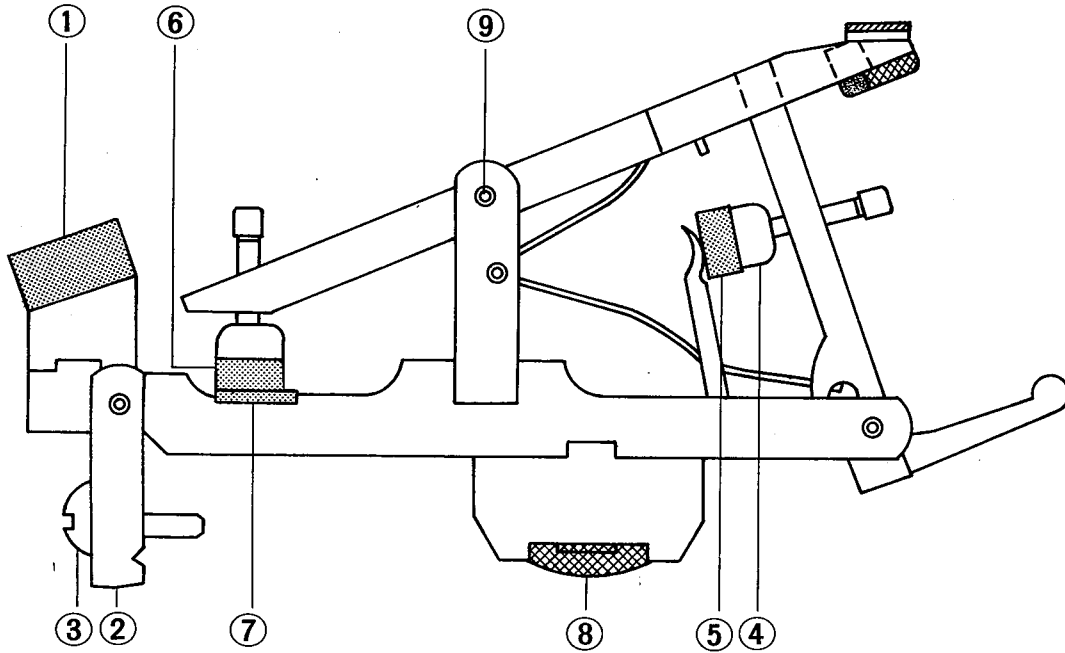
1. Circuit Boards & Components (電気部品)



Ref No.	Part No.(パーツ番号)	Description(部品名)	Remarks(備考)	卸 価	小売価
	4 0 1 0 0 0 BD 5 0 0 0 2 0	Piezoelectric Pickup (C2-6)	圧電ユニット (C2-6)		
①	4 0 1 0 0 0 NA 5 0 0 3 1 0	TR circuit Board #50031	TRシート		
②	4 0 1 0 0 0 NA 5 0 0 3 2 0	PS circuit Board #50032	PSシート		
	4 0 1 0 0 0 IC 0 4 5 8 8 0	Transister 2SC458B,C	トランジスター		
	4 0 1 0 0 0 IE 0 0 0 0 1 0	FET 2SK30A-Y	F E T	CP-70	
	4 0 1 0 0 0 IG 0 0 1 3 9 0	Integrated Circuit RC4558DN	I C	CP-70	
	4 0 1 0 0 0 IG 0 2 7 8 0 0	-do.- FS7812L	"		
	4 0 1 0 0 0 IF 0 0 0 8 8 0	Zener Diode WZ-050	ツェナーダイオード	CP-70	
	4 0 1 0 0 0 IF 0 0 0 6 5 0	-do.- WZ-162	"		
	4 0 1 0 0 0 IF 0 0 0 0 4 0	Diode IS-1555	ダイオード		
	4 0 1 0 0 0 IK 0 0 0 1 5 0	Photo Coupler MCD-527	フォトカプラー	CP-70	
	4 0 1 0 0 0 HT 4 1 0 0 7 0	Solid Variable Resistor B-10K	ソリッドボリューム	CP-70 SR-19R	
	4 0 1 0 0 0 HT 4 1 0 0 8 0	-do.- B-22K	"	-do.-	
	4 0 1 0 0 0 HT 4 1 0 0 9 0	-do.- B-100K	"	-do.-	
	4 0 1 0 0 0 HS 4 2 0 1 1 0	Variable Resistor A-100K×2	ボリューム(基板型)	Volume CP-70	
	4 0 1 0 0 0 HS 4 2 0 1 2 0	-do.- A-50K	"	CP-70 Bass Wcenter Click	
	4 0 1 0 0 0 HS 4 2 0 1 3 0	-do.- A-1K	"	CP-70 Middle -do.-	
	4 0 1 0 0 0 HS 4 2 0 1 4 0	-do.- B-10K	"	CP-70 Treble -do.-	
	4 0 1 0 0 0 HS 4 2 0 1 5 0	-do.- B-100K×2	"	Speed CP-70	
	4 0 1 0 0 0 HS 4 2 0 1 6 0	-do.- C-20K×2	"	Depth CP-70	
	3 0 5 4 0 0 CB 8 0 0 8 2 0	Knob	つまみ	J-45 CP-70	
	4 0 1 0 0 0 GD 9 0 0 2 5 0	Line Transformer 600:600	ライントランス	CP-70	
	4 0 1 0 0 0 FJ 1 6 6 1 0 0	Electrolitic Capacitor 50V 1.0μF	電解コンデンサ整型	CP-70	
	4 0 1 0 0 0 FM 1 1 6 2 2 0	Nonpolar Capasitor 50V 2.2μF	NPコンデンサ整型		
	4 0 1 0 0 0 FM 1 1 6 1 0 0	-do.- 50V 1.0μF	"		
	4 0 1 0 0 0 FP 3 5 5 4 7 0	Tantalum Capasitor 35V 0.47μF	タンタルコンデンサ デッドタイプ	CP-70	
	4 0 1 0 0 0 KA 2 0 0 7 0 0	Lever Switch (Tremolo Sw.)	トレモロスイッチ	CP-70	
	3 2 5 0 0 0 CB 0 7 3 8 4 0	Knob (-do.-)	" つまみ		
	4 0 1 0 0 0 LB 2 0 0 8 6 0	Patch In/Out Jack	ハッチ端子ジャック		
	3 0 5 6 0 0 CB 0 6 2 0 1 0	Phone Nut (For Patch In/Out)		EM-90	
	4 0 1 0 0 0 LB 3 0 0 1 6 0	Cannon Socket XLR-3-32	キャノンソケット	CP-70 PM-400 PS-400	
	4 0 1 0 0 0 LB 2 0 0 6 8 0	Phone Jack	ホーンジャック	CP-70	
	4 0 1 0 0 0 IF 0 0 0 6 0 0	Light Emitting Diode BD-301RR	発光ダイオード (パイロットランプ)		
	4 0 1 0 0 0 KA 4 0 0 6 1 0	Slide Switch (Power Sw.)	電源スイッチ		
	4 0 1 0 0 0 LB 2 0 0 7 6 0	Cannon Socket XLR-2-32	キャノンソケット		

Ref No	Part No.(パーツ番号)	Description(部品名)	Remarks(備考)	卸 価	小売価
	4 0 : 1 0 : 0 0 : G A : 5 0 : 0 0 6 : 1 0	AC Adartor (Completed)	100-V	Japanese Model	
	4 0 : 1 0 : 0 0 : G A : 5 0 : 0 0 6 : 3 0	-do.-	120 V	Us. Canadian	
	4 0 : 1 0 : 0 0 : G A : 5 0 : 0 0 6 : 5 0	-do.-		Australian S. African	
	4 0 : 1 0 : 0 0 : G A : 5 0 : 0 0 6 : 6 0	-do.-		European	
	4 0 : 1 0 : 0 0 : G A : 5 0 : 0 0 6 : 9 0	-do.-		General Export	

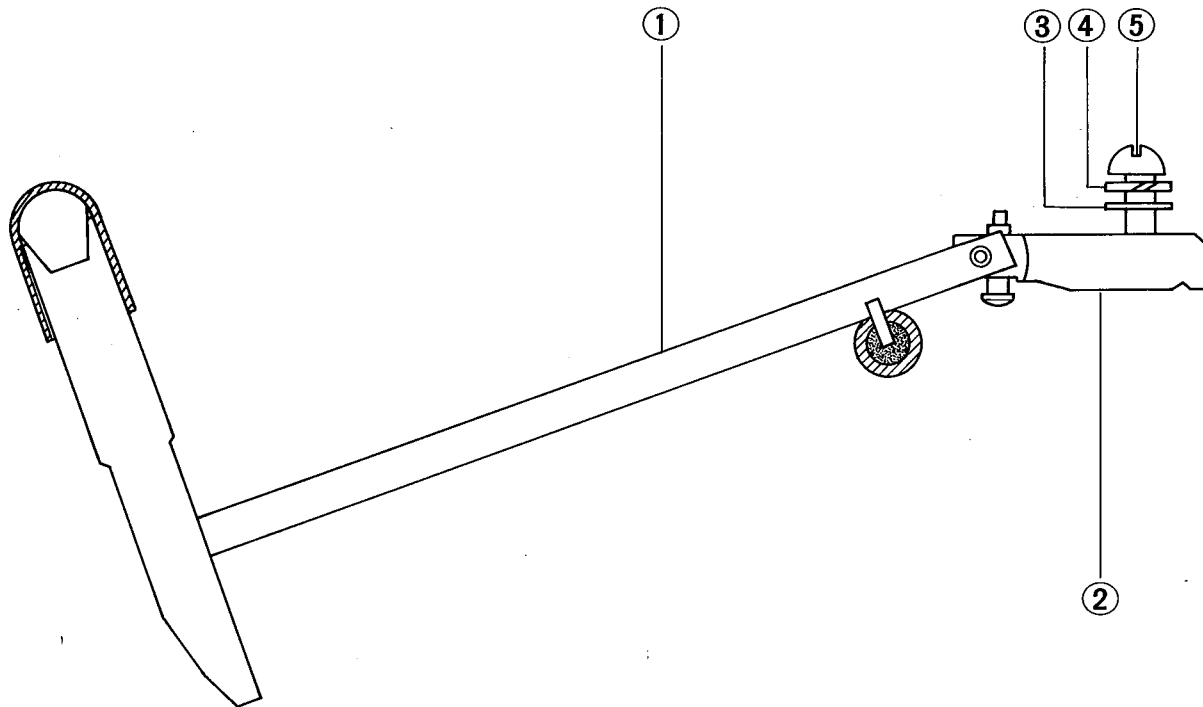
2. Whippen Assembly(サポート アッセン)



Ref No	Part No.(パーツ番号)	Description(部品名)	Remarks(備考)	卸 価	小売価
	3 2 : 5 0 : 0 0 : N B : 9 7 : 0 0 1 : 1 0	Whippen Assembly (bass)	サポートアッセン(低)	1 Key~25Key	
	3 2 : 5 0 : 0 0 : N B : 9 7 : 0 0 2 : 2 0	-do- (middle)	" (中)	26Key~50Key	
	3 2 : 5 0 : 0 0 : N B : 9 7 : 0 0 3 : 3 0	-do.- (treble)	" (高)	51Key~73Key	
①	3 2 : 5 0 : 0 0 : C C : 9 0 : 0 0 7 : 7 0	Shank Stop Felt	シャックストップフェルト		
②	3 2 : 5 0 : 0 0 : N B : 9 7 : 0 0 4 : 4 0	Whippen Flange Assembly	サポートフレンジアッセン		
③	3 2 : 5 0 : 0 0 : A A : 9 7 : 0 1 8 : 8 0	-do.- Screw	" スクリュー		
④	3 2 : 5 0 : 0 0 : D B : 6 0 : 0 1 0 : 0 0	Jack Button	ジャックボタン		
⑤	3 2 : 5 0 : 0 0 : C D : 9 0 : 0 0 7 : 7 0	Jack Button Punching	ジャックボタンハンチング		
⑥	3 2 : 5 0 : 0 0 : C D : 9 0 : 0 0 6 : 6 0	Repetition Button Punching	レベテイションボタンハンチング		
⑦	3 2 : 5 0 : 0 0 : C C : 9 0 : 0 0 6 : 6 0	Repetition Stop Felt	レベテイションストップフェルト		
⑧	3 2 : 5 0 : 0 0 : C C : 9 0 : 0 0 8 : 8 0	Whippen heel Cloth	サポートヒールクロス		
⑨	3 2 : 5 0 : 0 0 : A A : 9 7 : 0 1 7 : 7 0	Center Pin	センターピン		

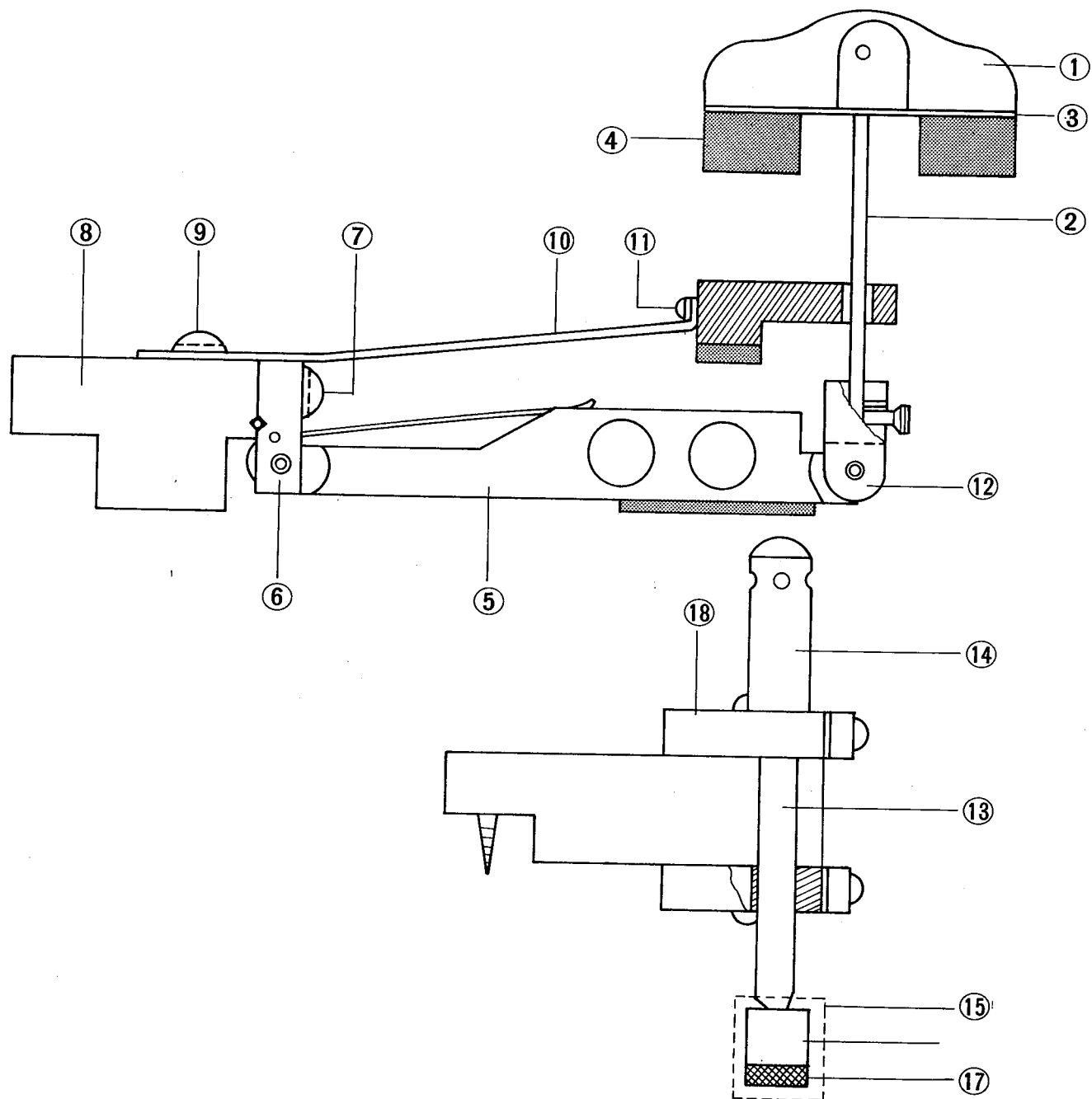
3. Hammer Assembly (ハンマー アッセン)

CP-70B(#5001~)



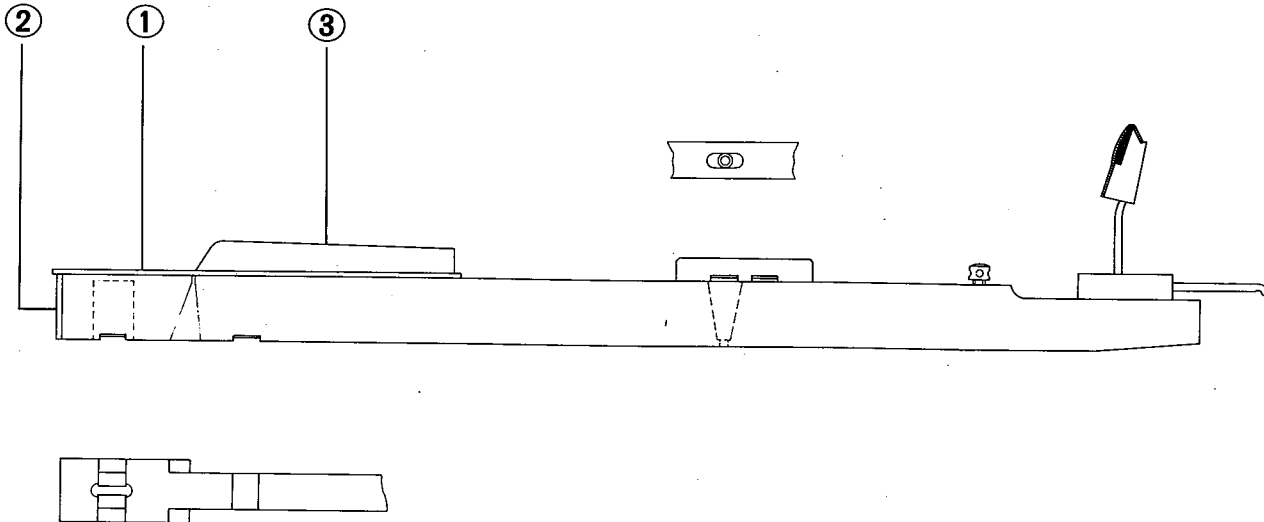
Ref No.	Part No.(パーツ番号)	Description(部品名)	Remarks(備考)	卸 価	小売価
	3 2:5 0:0 0;NB:9 7:0 0:5 0	Hammer Assembly (bass)	ハンマーアッセン(低)	1 Key~25Key	
	3 2:5 0:0 0;NB:9 7:0 0:6 0	--do.-- (middle)	" (中)	26Key~50Key	
	3 2:5 0:0 0;NB:9 7:0 0:7 0	--do.-- (treble)	" (高)	51Key~63Key	
	3 2:5 0:0 0;NB:9 7:0 0:8 0	--do.-- (-do.--)	" (1#)	64Key~73Key	
①	3 2:5 0:0 0;NB:9 7:0 0:9 0	Hammer Shank Assembly	ハンマーシャングアッセン	W/Flange	
②	3 2:5 0:0 0;DB:6 0:0 0:5 0	Shank Flange	シャングフレンジ		
③	3 2:5 0:0 0;AA:9 7:0 2:1 0	--do.-- Washer	" 平座金		
④	3 2:5 0:0 0;AA:9 7:0 2:0 0	--do.-- Spring Washer	" バネ座金		
⑤	3 2:5 0:0 0;AA:9 7:0 1:9 0	--do.-- Screw	" スクリュー		

4. Damper & Damper Lever Assembly (ダンパーとダンパーレバーアッセン)



Ref No.	Part No.(パーツ番号)	Description(部品名)	Remarks(備考)	卸 価	小売価
①	3 2 5 0 0 0 NB 9 7 0 1 4 0	Damper Head Assembly (bass)	ダンパーヘッドアッセン(低)		
①	3 2 5 0 0 0 NB 9 7 0 1 5 0	-do.- (middle)	" (中)		
①	3 2 5 0 0 0 NB 9 7 0 1 6 0	-do.- (treble)	" (高)		
②	3 2 5 0 0 0 AA 9 7 0 1 0 0	Damper Wire	ダンパーワイヤー	Bass : 68mm Middle & Treble : 58mm	
③	3 2 5 0 0 0 CC 9 0 0 0 1 0	Damper Lining Felt	ダンパーライニングフェルト(低)		
③	3 2 5 0 0 0 CC 9 0 0 0 2 0	-do.-	" (中高)		
④	3 2 5 0 0 0 CC 9 0 0 0 3 0	Damper Felt	ダンパーフェルト(1本)		
④	3 2 5 0 0 0 CC 9 0 0 0 4 0	-do.-	" (2本)		
④	3 2 5 0 0 0 CC 9 0 0 0 5 0	-do.-	" (平止)		
⑤	3 2 5 0 0 0 NB 9 7 0 1 1 0	Damper Lever Assembly (bass)	ダンパーレバーアッセン(低)		
⑤	3 2 5 0 0 0 NB 9 7 0 1 2 0	-do.- (middle)	" (中)		
⑤	3 2 5 0 0 0 NB 9 7 0 1 3 0	-do.- (treble)	" (高)		
⑥	3 2 5 0 0 0 DB 6 0 0 0 8 0	Damper Lever Flange	ダンパーレバーフレンジ		
⑦	3 2 5 0 0 0 AA 9 7 0 2 5 0	-do.-	" スクリュー		
⑧	3 2 5 0 0 0 DB 6 0 0 0 9 0	Damper Lever Rail	ダンパーレバーレール		
⑨	3 2 5 0 0 0 AA 9 7 0 2 6 0	-do.- Screw	" 取付 木ネジ		
⑩	3 2 5 0 0 0 AA 9 7 0 2 2 0	Damper Stop Rail	ダンパーストップレール器具		
⑪	3 2 5 0 0 0 AA 9 7 0 2 3 0	-do.- Screw 1	" 木ネジ1		
⑪	3 2 5 0 0 0 AA 9 7 0 2 4 0	-do.- Screw 2	" 木ネジ2		
⑫	3 2 5 0 0 0 DB 6 0 0 0 7 0	Damper Block	ダンパーブロック	W/Screw	
⑬	3 2 5 0 0 0 NB 9 7 0 1 7 0	Damper Lifting Assembly	ダンパー突上アッセン	W/Button, Button Punching, Wire	
⑭	3 2 5 0 0 0 CB 9 5 0 0 0 0	Damper Capstan Button	ダンパーキャプスタンボタン		
⑮	3 2 5 0 0 0 NB 9 7 0 2 2 0	Damper Button Assembly	ダンパーボタンアッセン		
⑯	3 2 5 0 0 0 CD 9 0 0 0 2 0	-do.-	" ハンチング		
⑰	3 2 5 0 0 0 CD 9 0 0 0 3 0	-do.- Punching	" ハンチング		
⑱	3 2 5 0 0 0 NB 9 7 0 2 1 0	Damper Guide Rail	ダンパーガイドレール	W/Cloth	

5. Key Board Section(鍵盤部分)

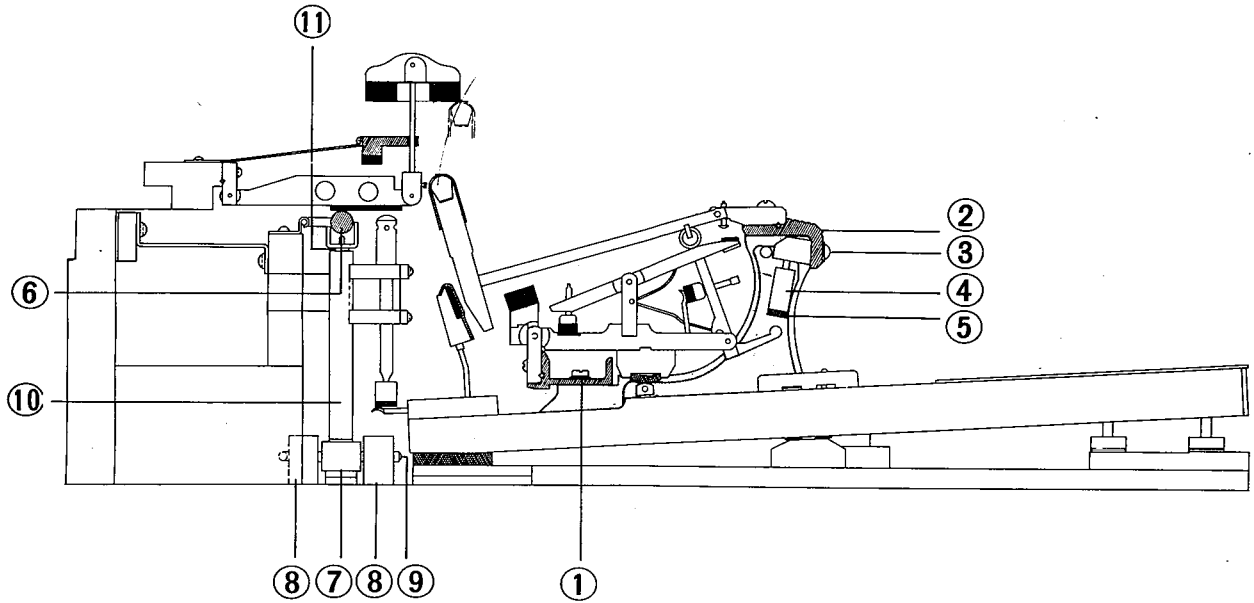


鍵盤を発注される際は、鍵盤名、数量を記入して下さい。
例……16C, ……1本

Ref No.	Part No.(パーツ番号)	Description(部品名)	Remarks(備考)	卸 価	小売価
※	3 2:5 0:0 0:0 NB:9 7:0 1:0 0	Playing Key Assembly	鍵盤アッセン		
①	3 2:5 0:0 0:0 CB:9 5:0 0:8 0	Natural Key Covering C, F	白鍵(上面)		
①	3 2:5 0:0 0:0 CB:9 5:0 0:9 0	-do.- D	"		
①	3 2:5 0:0 0:0 CB:9 5:0 1:0 0	-do.- E, B	"		
①	3 2:5 0:0 0:0 CB:9 5:0 1:1 0	-do.- G	"		
①	3 2:5 0:0 0:0 CB:9 5:0 1:2 0	-do.- A	"		
①	3 2:5 0:0 0:0 CB:9 5:0 1:3 0	-do.- E'	"		
②	3 2:5 0:0 0:0 CB:9 5:0 1:4 0	Natural Key Front Covering	白鍵(前面)		
③	3 2:5 0:0 0:0 CB:9 5:0 1:5 0	Sharp Key	黒鍵(上面)		
	3 2:5 0:0 0:0 CD:9 0:0 0:1 0	Back Rail Cloth	バックレールクロス		
	3 2:5 0:0 0:0 CD:9 0:1 0:4 0	Cloth Punching (balance)	クロスパンチング		
	3 2:5 0:0 0:0 CD:0 6:0 1:3 0	-do.- (front)	"		
	3 2:5 0:0 0:0 CA:5 0:0 1:4 0	Peper Punching (balance)	ペーパーパンチング		
	3 2:5 0:0 0:0 CA:5 0:0 1:3 0	-do.- (front)	"		

※ Ordering a piece of Playing Key assembly,
Please write description (ex. 16C) & quantity.

6. Rail Section (レール部分)



Ref No.	Part No.(パーツ番号)	Description(部品名)	Remarks(備考)	卸 価	小売価
①	3 2:5 0 0 0:A A:9 7 0 1:3 0	Whippen Rail	サポーターレール		
②	3 2:5 0 0 0:A A:9 7 0 1:4 0	Shank Rail	シャンクレール		
	3 2:5 0 0 0:N B:9 7 0 1:8 0	Regulating Assembly (bass)	レギュレティングアセン(低)		
	3 2:5 0 0 0:N B:9 7 0 1:9 0	-do.- (middle)	" (中)		
	3 2:5 0 0 0:N B:9 7 0 2:0 0	-do.- (treble)	" (高)		
③	3 2:5 0 0 0:A A:9 7 0 1:1 0	Regulating Screw	レギュレティングスクリュー		
④	3 2:5 0 0 0:C B:9 5 0 0:7 0	-do.- Button	" ボタン	W/Button & Button Punching	
④	3 2:5 0 0 0:C D:9 0 0 0:4 0	-do.-	" "		
⑤	3 2:5 0 0 0:C D:9 0 0 0:5 0	-do.- Punching	" ハンチング		
	3 2:5 0 0 0:A A:9 7 0 1:5 0	Bracket Screw	ブラケット取付スクリュー		
	3 2:5 0 0 0:A A:9 7 0 1:6 0	-do.- Spring Washer	" スプリングワッシャー		
⑥	3 2:5 0 0 0:B A:9 0 0 0:1 0	Damper Rod	ダンパーロッド		
	3 2:5 0 0 0:B A:9 0 0 0:0 0	-do.- Hing Cloth	ダンパーロッドヒンジクロス貼り		
⑦	3 2:5 0 0 0:D B:6 0 0 0:0 0	Pedal Lever	ペダルレバー	W/Cloth Bushing Cloth & Punching	
	3 2:5 0 0 0:A A:9 7 0 0:4 0	-do.- Guide	" 振止金具	W/Skin	
	3 2:5 0 0 0:A A:9 7 0 0:5 0	-do.- Spring	" 巻バネ		
	3 2:5 0 0 0:C B:9 5 0 0:4 0	-do.- Punching	" ハンチング		
⑧	3 2:5 0 0 0:D B:6 0 0 0:2 0	-do.- Block	ペダルメタル		
⑨	3 2:5 0 0 0:A A:9 7 0 0:6 0	-do.- Pin	曲金		
⑩	3 2:5 0 0 0:D B:6 0 0 0:1 0	Pedal Rod (Short)	突上棒(小)		
⑪	3 2:5 0 0 0:C B:9 5 0 0:0 0	Rubber Bush	ゴムブッシュ		

7. Frame Section (フレーム部分)

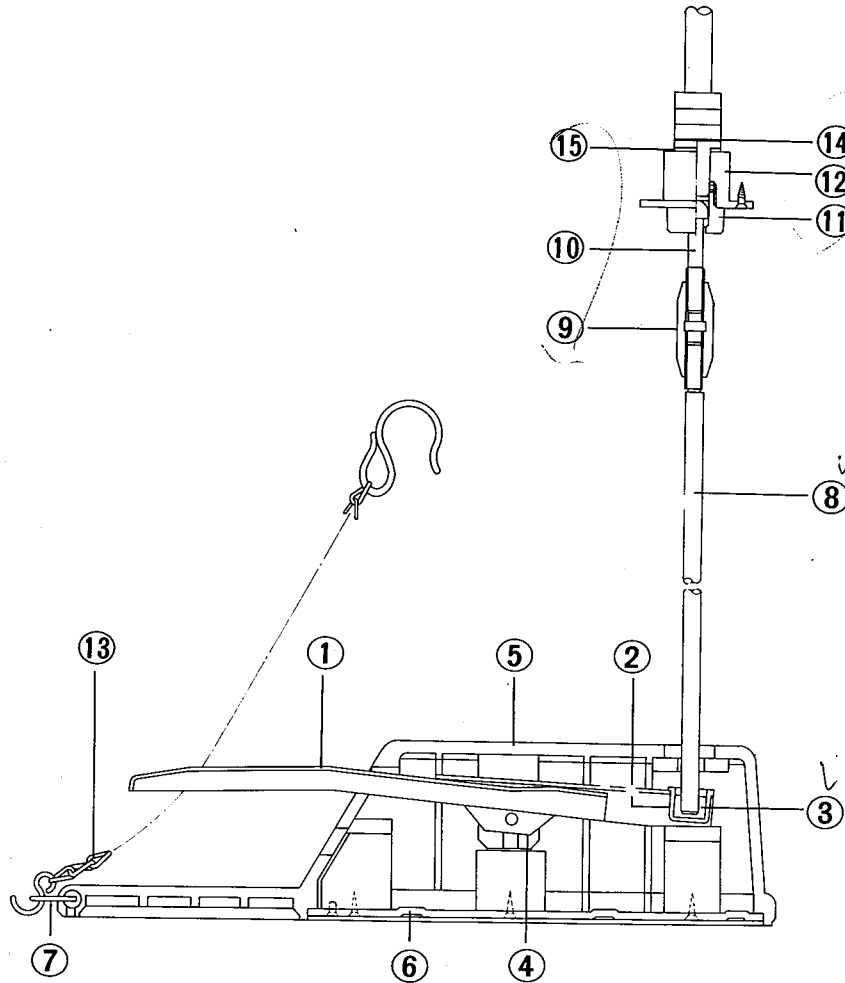
巻線を発注される際は機種名、鍵盤名、左右いずれか、数量を明記して下さい。
例……NB50439、33F、右……1本

Ref No	Part No.(パーツ番号)	Description(部品名)	Remarks(備考)	卸 価	小売価
	3 2 5 0:0 0:AA:5 0:1 7:5 0	Twing Pin	チューニングピン	CP-70 Size # 3	
	3 2 5 0:0 0:AA:5 0:1 7:6 0	-do.-	"	-do.-do.- # 4	
	3 2 5 0:0 0:AA:5 0:1 9:0 0			-do.-do.- # 5	
	3 2 5 0:0 0:AA:5 0:1 8:1 0	-do.-	"	-do.-do.- # 6	
	3 2 5 0:0 0:AA:9 7:0 2:6 0	Center Pin	センターピン	CP-70 Size #19	
	3 2 5 0:0 0:AA:9 7:0 2:7 0	-do.-	"	-do.-do.- #20	
	3 2 5 0:0 0:AA:9 7:0 2:8 0	-do.-	"	-do.-do.- #21	
	3 2 5 0:0 0:AA:9 7:0 2:9 0	-do.-	"	-do.-do.- #22	
	3 2 5 0:0 0:AA:9 7:0 3:0 0	-do.-	"	-do.-do.- #23	
	3 2 5 0:0 0:AA:9 7:0 3:1 0	-do.-	"	-do.-do.- #24	
	3 2 5 0:0 0:AA:9 7:0 3:2 0	-do.-	"	-do.-do.- #25	
	3 2 5 0:0 0:DB:5 0:0 0:6 0	Tuning Pin Bushing		CP-70 Size # 1	
	3 2 5 0:0 0:DB:5 0:0 0:7 0	-do.-		-do.-do.- # 2	
	3 2 5 0:0 0:DB:5 0:0 0:8 0	-do.-		-do.-do.- # 3	
	3 2 5 0:0 0:DB:5 0:0 0:9 0	-do.-		-do.-do.- # 4	
	3 2 5 0:0 0:DB:5 0:0 1:0 0	-do.-		-do.-do.- # 5	
	3 2 6 0:0 0:DB:5 0:0 1:1 0	-do.-		-do.-do.- # 6	
	3 2 5 0:0 0:DB:5 0:0 1:2 0	-do.-		-do.-do.- # 7	
		Bass String	巻線		
	3 2 5 0:0 0:NB:5 0:4 0:3 0	1 Key 8 E			
	3 2 5 0:0 0:NB:5 0:4 0:4 0	9 F			
	3 2 5 0:0 0:NB:5 0:4 0:5 0	10 F #			
	3 2 5 0:0 0:NB:5 0:4 0:6 0	11 G			
	3 2 5 0:0 0:NB:5 0:4 0:7 0	12 G #			
	3 2 5 0:0 0:NB:5 0:4 0:8 0	13 A			
	3 2 5 0:0 0:NB:5 0:4 0:9 0	14 A #			
	3 2 5 0:0 0:NB:5 0:4 1:0 0	15 B			
	3 2 5 0:0 0:NB:5 0:4 1:1 0	16 C			
	3 2 5 0:0 0:NB:5 0:4 1:2 0	10Key 17 C #			
	3 2 5 0:0 0:NB:5 0:4 1:3 0	18 D			
	3 2 5 0:0 0:NB:5 0:4 1:4 0	19 D #			
	3 2 5 0:0 0:NB:5 0:4 1:5 0	20 E			
	3 2 5 0:0 0:NB:5 0:4 1:6 0	21 F			
	3 2 5 0:0 0:NB:5 0:4 1:7 0	22 F #			
	3 2 5 0:0 0:NB:5 0:4 1:8 0	23 G (Left)			
	3 2 5 0:0 0:NB:5 0:4 1:9 0	-do.- (Right)			
	3 2 5 0:0 0:NB:5 0:4 2:0 0	24 G # (Left)			
	3 2 5 0:0 0:NB:5 0:4 2:1 0	-do.- (Right)			
	3 2 5 0:0 0:NB:5 0:4 2:2 0	25 A (Left)			
	3 2 5 0:0 0:NB:5 0:4 2:3 0	-do.- (Right)			

Ordering a Bass String. Please write Description(Ex. 33F) & Quantity.

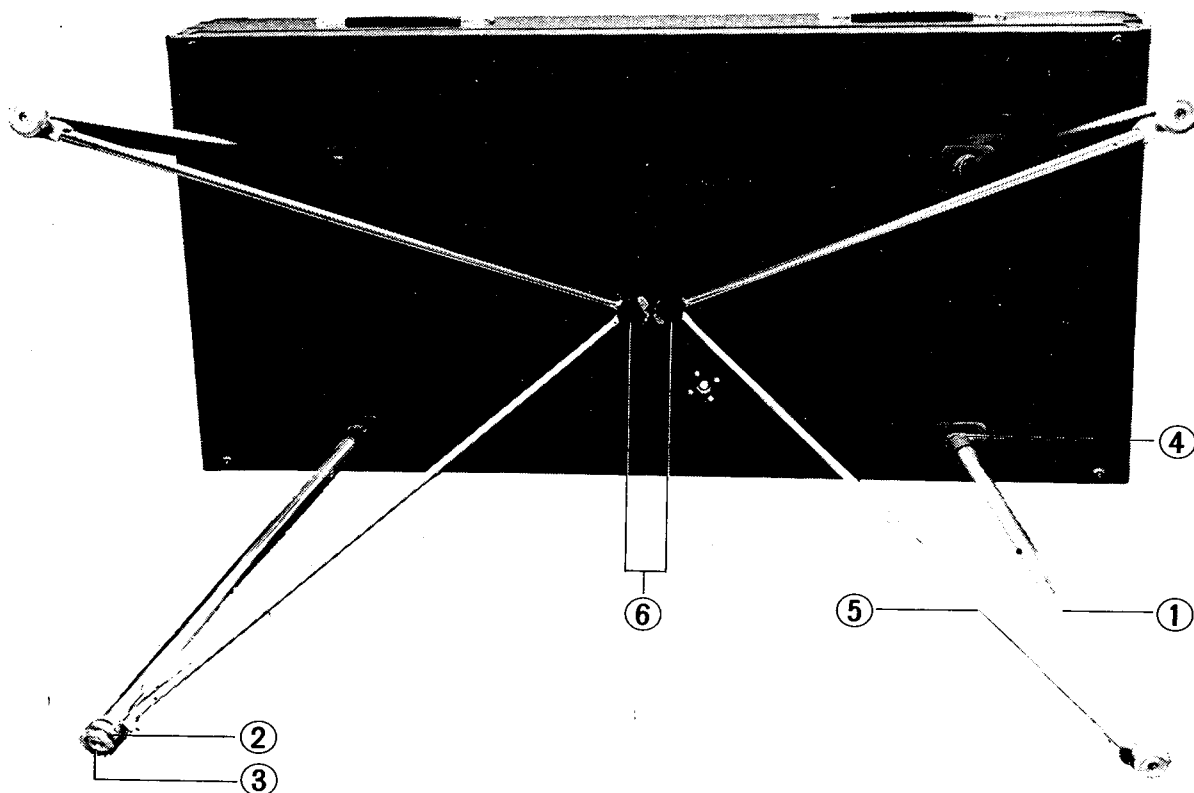
Ref No.	Part No.(パーツ番号)	Description(部品名)	Remarks(備考)	卸 価	小売価
	3 2 5 0 0 0 NB 5 0 4 2 4 0	26 A # (Left)			
	3 2 5 0 0 0 NB 5 0 4 2 5 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 2 6 0	20Key 27 B (Left)			
	3 2 5 0 0 0 NB 5 0 4 2 7 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 2 8 0	28 C (Left)			
	3 2 5 0 0 0 NB 5 0 4 2 9 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 3 0 0	29 C # (Left)			
	3 2 5 0 0 0 NB 5 0 4 3 1 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 3 2 0	30 D (Left)			
	3 2 5 0 0 0 NB 5 0 4 3 3 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 3 4 0	31 D # (Left)			
	3 2 5 0 0 0 NB 5 0 4 3 5 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 3 6 0	32 E (Left)			
	3 2 5 0 0 0 NB 5 0 4 3 7 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 3 8 0	33 F (Left)			
	3 2 5 0 0 0 NB 5 0 4 3 9 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 4 0 0	34 F # (Left)			
	3 2 5 0 0 0 NB 5 0 4 4 1 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 4 2 0	35 G (Left)			
	3 2 5 0 0 0 NB 5 0 4 4 3 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 4 4 0	36 G # (Left)			
	3 2 5 0 0 0 NB 5 0 4 4 5 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 4 6 0	30Key 37 A (Left)			
	3 2 5 0 0 0 NB 5 0 4 4 7 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 4 8 0	38 A # (Left)			
	3 2 5 0 0 0 NB 5 0 4 4 9 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 5 0 0	39 B (Left)			
	3 2 5 0 0 0 NB 5 0 4 5 1 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 5 2 0	40 C (Left)			
	3 2 5 0 0 0 NB 5 0 4 5 3 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 5 4 0	41 C # (Left)			
	3 2 5 0 0 0 NB 5 0 4 5 5 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 5 6 0	42 D (Left)			
	3 2 5 0 0 0 NB 5 0 4 5 7 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 5 8 0	43 D # (Left)			
	3 2 5 0 0 0 NB 5 0 4 5 9 0	-do.- (Right)			
	3 2 5 0 0 0 NB 5 0 4 6 0 0	44 E (Left)			
	3 2 5 0 0 0 NB 5 0 4 6 1 0	37Key -do.- (Right)			
		Music Wire	芯 線 CP-70		
	3 2 5 0 0 0 MV 0 0 0 0 4 0	45 F ~51 B	# 17	-do.-	
	3 2 5 0 0 0 MV 0 0 0 0 5 0	52 C ~57 F	# 16 1/2	-do.-	
	3 2 5 0 0 0 MV 0 0 0 0 6 0	58 F # ~63 B	# 16	-do.-	
	3 2 5 0 0 0 MV 0 0 0 0 7 0	64 C ~71 G	# 15 1/2	-do.-	
	3 2 5 0 0 0 MV 0 0 0 0 8 0	72 G # ~76 C	# 15	-do.-	
	3 2 5 0 0 0 MV 0 0 0 1 0 0	77 C # ~80 E	# 14		

8. Pedal Assembly (ペダル アッセン)



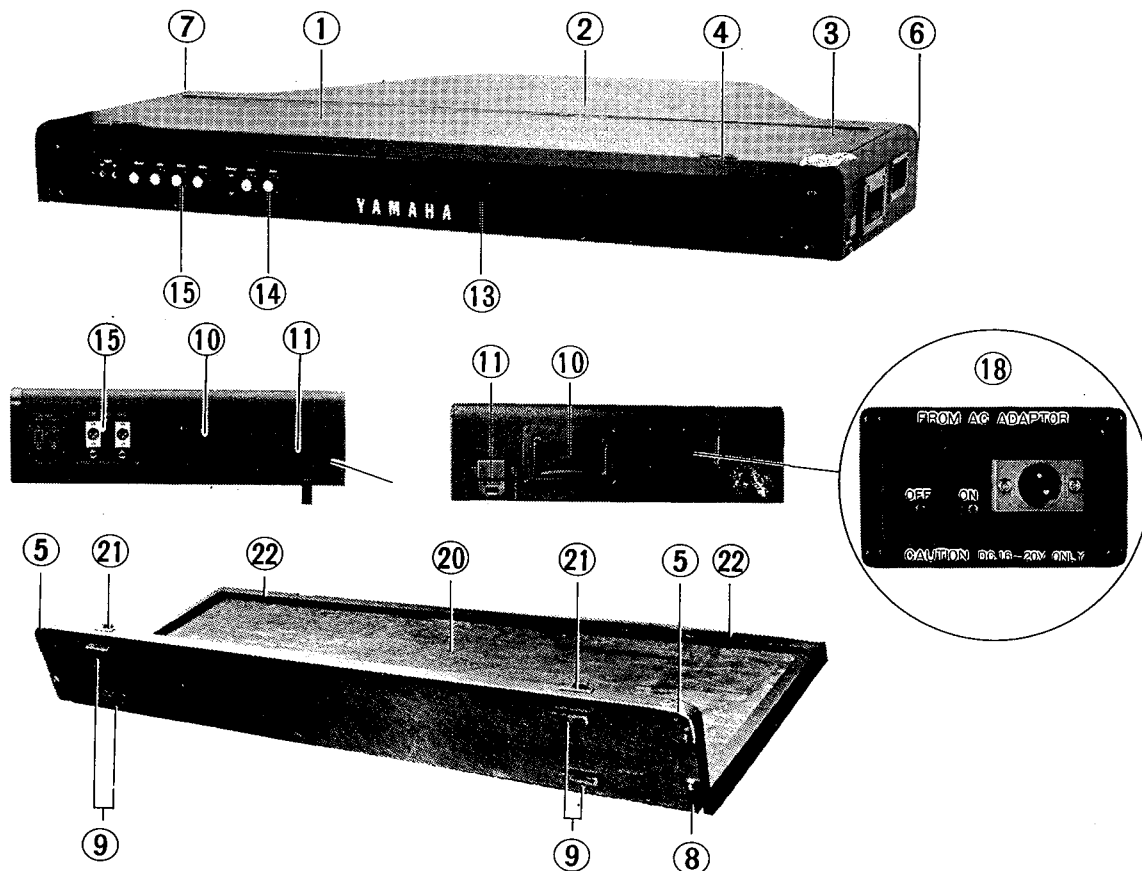
Ref No.	Part No.(パーツ番号)	Description(部品名)	Remarks(備考)	卸 価	小売価
	3 0 1 0 0 0 NB 5 0 1 9 2 0	Pedal Assembly(Without Pedal Rod) <small>ペダル (突き上げ棒無し)</small>	CP-70		
1	3 2 5 0 0 0 AA 9 7 0 0 7 0	Pedal	ペダル	CP-70	
2	3 2 5 0 0 0 CB 9 5 0 0 6 0	do. Cap	ル キャップ	do.	本体に接続する
3	3 2 5 0 0 0 CB 9 5 0 0 5 0	do. Rubber Bushing	" ゴム 輪	do.	
4	3 2 5 0 0 0 AA 9 7 0 0 8 0	do. Dowel	" 軸 受	do.	
5	3 2 5 0 0 0 DB 6 0 0 0 3 0	do. Box	" 箱	do.	
6	3 2 5 0 0 0 DB 6 0 0 0 4 0	do. Bottom Board	" 底 板	do.	
7	3 2 5 0 0 0 AA 9 7 0 0 9 0	Hook Bolt	フックボルト	do.	
8	3 2 5 0 0 0 AA 9 7 0 0 2 0	Pedal Rod (Long)	突き上げ棒	CP-70	
9	3 2 5 0 0 0 EZ 5 0 0 0 2 0	Rod Connection Nut	" 連結ナット		
10	3 2 5 0 0 0 EZ 5 0 0 0 1 0	do. Bolt	" 球ナット		
11	3 2 5 0 0 0 EZ 5 0 0 0 0 0	do. Nut	" ナット	W/Bushing Punching (Small)	
12	3 2 5 0 0 0 AA 9 7 0 0 3 0	Pedal Lod Guide	" ガイ ド		
13	3 2 5 0 0 0 AA 9 9 0 1 1 0	Pedal Chain (Long)	ペダルクサリ(長)	CP-70	
13	3 2 5 0 0 0 AA 9 9 0 1 1 0	do. (Short)	" (短)	do.	
14	3 2 5 0 0 0 CB 9 5 0 0 2 0	Rod Button	突上棒ボタン	W/Batton Punching	
15	3 2 5 0 0 0 CB 9 5 0 0 3 0	Button Punching (Large)	ボタンパンチング (大)		

9. Leg Section (脚部分)



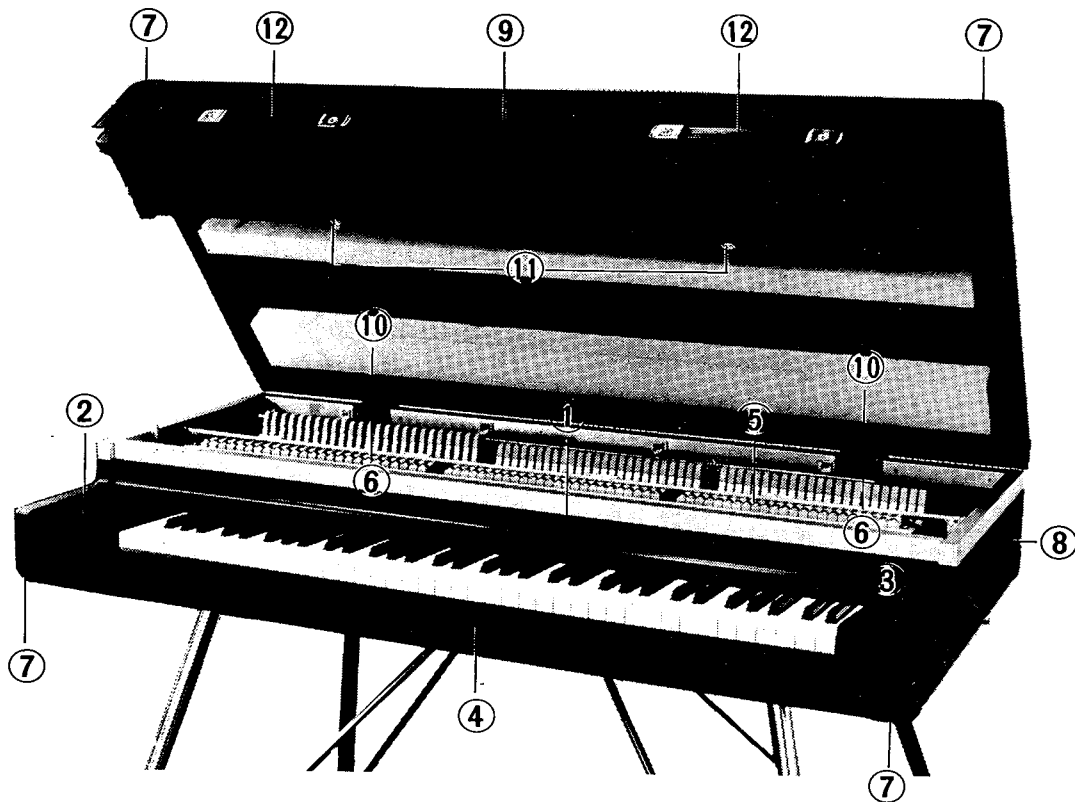
Ref No.	Part No.(パーツ番号)	Description(部品名)	Remarks(備考)	卸 価	小売価
①	3 2 5 0:0 0:NB:5 0:1 7:6 0	Leg Pipe Assembly	脚ハイブアッセン	CP-70	
				-do.-	
②	3 2 5 0:0 0:AA:5 0:1 2:1 0	Adjustment Nut FCrM3-3g	調 整ナット	-do.-	
③	3 2 5 0:0 0:AA:5 0:1 9:2 0	-do.- Seat Al	" 座	-do.-	
				-do.-	
④	3 2 5 0:0 0:AA:5 0:1 4:8 0	Seat SPCC ZMC2-BI	脚ハイブ取付座	-do.- For Leg pipe	
⑤	3 2 5 0:0 0:AA:5 0:1 2:5 0	Leg Stay FCrM3-3g	脚 ス テ イ	-do.-	
⑥	3 2 5 0:0 0:CB:5 0:0 9:4 0	Knob Bolt	ノ ネ ジ	-do.-	
	3 2 5 0:0 0:AA:5 0:1 8:0 0	Stay Ring	脚 柱 リ ン グ	-do.-	

10. Upper Body & Upper Case (上本体及び上蓋)



Ref No.	Part No.(パーツ番号)	Description(部品名)	Remarks(備考)	卸 価	小売価
①	3 2 5 0 0 0 DB 5 0 2 1 5 0	Top Board (Front)	屋 根(前)	CP-70	
②	3 2 5 0 0 0 DB 5 0 2 1 4 0	-do.- (Rear)	" (後)	-do.-	
	4 0 1 0 0 0 EF 3 5 0 2 0 0	Oval Head Screw 5×20 ZMC2-BI	鉄 丸 皿 小 ネ ジ	-do.-	
③	3 2 5 0 0 0 BB 5 0 0 2 0 0	Long Hinge Assembly	ロ ン グ ヒ ン ジ ア ー セ ン	-do.-	
	4 0 1 0 0 0 EP 3 2 4 1 6 0	Flat Head Wooden Screw 2.4×16 ZMC2-BI	鉄 皿 木 ネ ジ	-do.-	
④	3 2 5 0 0 0 AA 5 0 1 6 5 0	Open Hinge 凹 -do.-	中 開 蝶 番	-do.-	
	4 0 1 0 0 0 ER 3 2 7 1 6 0	Oval Head Wooden Screw 2.7×16 -do.-	鉄 丸 皿 木 ネ ジ	-do.-	
⑤	3 2 5 0 0 0 AA 5 0 1 1 7 0	Corner Holder Bracket ZMC2-BI	コ ー ナ ー 金 具(1)	-do.-	
⑥	3 2 5 0 0 0 AA 5 0 1 1 8 0	-do.- -do.-	" (2)右	-do.-	
⑦	3 2 5 0 0 0 AA 5 0 1 1 5 1 0	-do.- -do.-	" (2)左	-do.-	
⑧	3 2 5 0 0 0 AA 5 0 1 1 9 0	-do.- -do.-	" (3)	-do.-	
	4 0 1 0 0 0 ER 3 3 5 2 0 0	Oval Head Wooden Screw 3.5×10 -do.-	鉄 丸 皿 木 ネ ジ	-do.-	
⑨	3 2 5 0 0 0 CB 5 0 0 8 1 0	Slip Fitting	ス ペ リ 具	-do.-	
	4 0 1 0 0 0 EP 3 3 5 1 6 0	Flat Head Wooden Screw 3.5×16 ZMC2-BI	鉄 皿 木 ネ ジ	-do.-	
	3 2 5 0 0 0 BA 5 0 0 0 6 0	Name Plate	ネ ー ム プ レ ー ト	-do.-	
	4 0 1 0 0 0 ER 3 3 1 1 3 0	Oval Head Wooden Screw 3.1×13 ZMC2-BI	鉄 丸 皿 木 ネ ジ	-do.-	
⑩	3 2 5 0 0 0 AA 5 0 1 7 7 0	Handle ZMC2-BI	把 手	-do.-	
	4 0 1 0 0 0 ER 3 4 1 2 5 0	Oval Head Wooden Screw 4.1×25 -do.-	鉄 丸 皿 木 ネ ジ	-do.-	

11. Lower Body & Lower Case (下本体及び下蓋)



Ref No.	Part No.(パーツ番号)	Description(部品名)	Remarks(備考)	卸 価	小売価
①	3 2:5 0:0 0:NB:5 0:1 7:9 0	Key Stop Lail	鍵 盤 押 え	CP-70	
	4 0:1 0:0 0:EQ:0 3:5 1:6 0	Round Head Wooden Screw 3.5×16 ZMC2-Y	鉄 丸 皿 木 ネジ	-do.-	
②	3 2:5 0:0 0:DA:5 0:0 2:5 0	Key block (Left)	拍 子 木 (左)	-do.-	
	3 2:5 0:0 0:DA:5 0:0 2:6 0	-do.- (Right)	" (右)	-do.-	
	4 0:1 0:0 0:EP:2 4:1 4:0 0			-do.-	
④	3 2:5 0:0 0:DB:5 0:2 2:7 0	Key Slip	口 棒	-do.-	
	4 0:1 0:0 0:EP:3 4:1 4:0 0	Flat Head Wooden Screw 4.1×40 ZMC2-BI	鉄 皿 木 ネジ	-do.-	
⑤	3 2:5 0:0 0:AA:5 0:1 2:8 0	Hammer Shank Stop	ハンマーシャック押え	-do.-	
⑥	3 2:5 0:0 0:AA:5 0:1 3:2 0	Dissection Hinge (2) ZMC2-BI	解体式蝶番(2)	-do.-	
	4 0:1 0:0 0:EY:9 8:0 8:6 0	Pan Head Screw 5×30 -do.-	鉄 丸 皿 木 ネジ	-do.-	
⑦	3 2:5 0:0 0:AA:5 0:1 1:7 0	Corner Holder Bracket ZMC2-BI	コ ー ナ ー 金 具	-do.-	
	4 0:1 0:0 0:ER:3 3:5 2:0 0	Oval Head Wooden Screw 3.5×20 -do.-	鉄 丸 皿 木 ネジ	-do.-	
	3 2:5 0:0 0:CB:5 0:0 8:1 0	Slip Fitting	ス ペ リ 具	-do.-	
	4 0:1 0:0 0:EP:3 3:5 1:6 0	Flat Head Wooden Screw 3.5×16 ZMC2-BI	鉄 皿 木 ネジ	-do.-	
⑧	3 2:5 0:0 0:AA:5 0:1 6:2 0	Semi Lock 凸 ZMC2-BI	セ ミ バ ッ チ ン	-do.-	
	4 0:1 0:0 0:EF:3 3:0 2:0 0	M 3 × 20 ZMC2-BI	鉄 丸 皿 小 ネジ		
	4 0:1 0:0 0:EV:2 0:0 0:3 0	M 3 -do.-	平 座 金		
	4 0:1 0:0 0:EV:3 0:0 0:3 0	M 3 -do.-	バ ネ 座 金		
	4 0:1 0:0 0:EV:1 0:0 0:3 0	M 3 -d.-	六 角 ナ ッ ト		

