

SERVICE MANUAL

MELODION

HAMMOND 44
PRO-44H



DEC.2008



SUZUKI MUSICAL INST.MFG.CO.,LTD.

2-25-12, RYOKE, NAKAKU, HAMAMATSU, JAPAN

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1.SPECIFICATIONS

◆ Keyboard	c~g3, Alto 44keys
◆ Reeds	Phosphor bronze tapered reeds
◆ Reed plates	Brass
◆ 1/4 inch output jack	Standard 1/4"
◆ Microphone	Internal dynamic lavalier
◆ Control	Volume
◆ Dimensions	563mm(W)x106mm(D)x52mm(H) (22.17"x 4.17"x 2.05")
◆ Weight	1200g(2.65lb)
◆ Accessories	Special short mouthpiece MP-141, Flexible mouthpiece, Mouthpiece with tube and L-shaped joint, Cleaning cloth, Soft case

2.INSPECTION SPECIFICATION

0. Required Equipment

0-1 Mixer and Headphone (You need a equipment which you can listen to the microphone sound with a headphone)

or

Amplifier (which produces the bigger sound than live sound, and also the microphone level is available)

1. Sound Inspection

1-1 Insert a mouthpiece into Hammond 44.

1-2 Insert the plug into Hammond 44's jack output and connect to the above equipment (0-1) at input terminal.

1-3 Turn Hammond 44's volume to max.

1-4 Blow kind of strongly without pressing any key and make sure there is no air leakage.

1-5 Check each key from bass to treble with kind of strong and stable blow.

Is there hollow sound?

Is there strange sound?

Check if the volume is too small by each key, or if overtone is unstable by each key.

2. Key sound Inspection

2-1 Hold a mouthpiece in your mouth without blowing, and press each key from bass to treble. Check if there is any unexpected sound or clang.

3. Reed Inspection

3-1 Hold blowing kind of strongly and fillip strongly each key from bass to treble. Check if there is any clink besides overtone.

3-2 In case you find a wrong key, check that key and next key alternately with blowing gently. If there is no clink besides overtone, it is OK.

4. Tuning Inspection

4-1 Play in octave unison from bass to treble, and check if undulation is not too fast.

5. Blowing Inspection

- 5-1 Check the lowest CEG chord in low volume and see if there is any fluttering sound. Check other chord DFA, EGB ... to BDF in the same way. → In case you find a wrong key, check again after blowing strongly without sound.
- 5-2 Check if overtone sounds equally overall.
- 5-3 Play around and see if there is any discomfort.

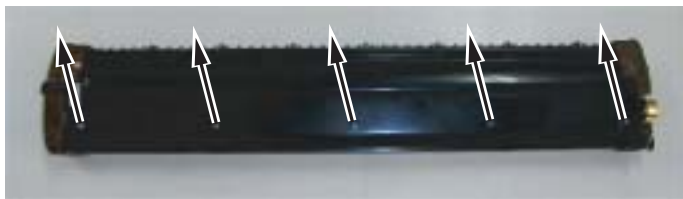
3.DISASSEMBLING PROCEDURE

1.REMOVE THE COVER ASS'Y :



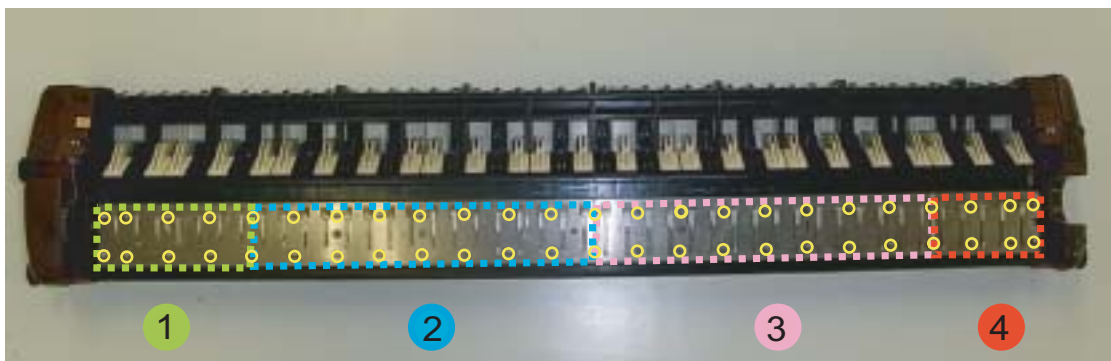
♦ Unscrew 6 cover screws.(Screw : M3x8, Ni)

2.REMOVE THE AIR BOX:



♦ Unscrew 5 air box screws.(screw : M3x15, BsNi)
Press the spit-valve and hold open. Pull out the air box upward.

3.DISASSEMBLE EACH READ PLATE



♦ Unscrew reed plate screws.(screw : Tapping screw, round, 2.3x6.5, BsNi)

- 1 Top high notes : 10 screws
- 2 High notes : 18 screws
- 3 Middle notes : 18 screws
- 4 Bass notes : 8 screws

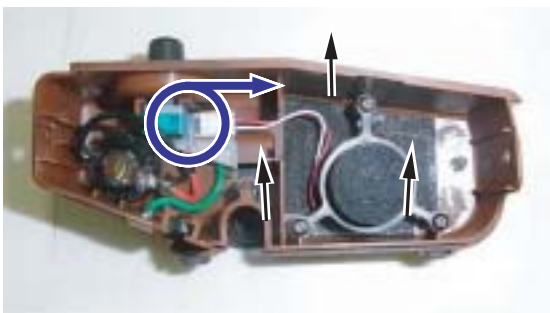
Joint parts are fixed together by 2 screws.
(2 plates share 2 screws)

4.REMOVE TREBLE SIDE COVER



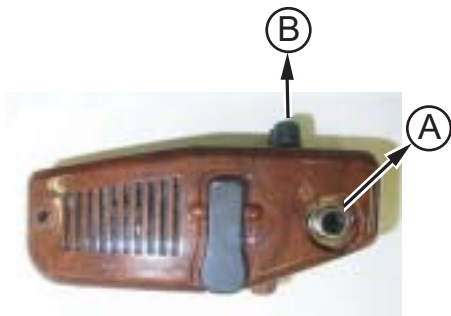
- ◆ Unscrew this screw (small, truss screw, M3x16) and remove a washer and strap pin.

5.REMOVE THE DYNAMIC MIKE UNIT:



- ◆ Unscrew 3 screws (Tapping screw, round, 2.3x6.5, BsNi). Remove a jack volume Assy's connector. To prevent the cable cut off, please hold the connector's base.

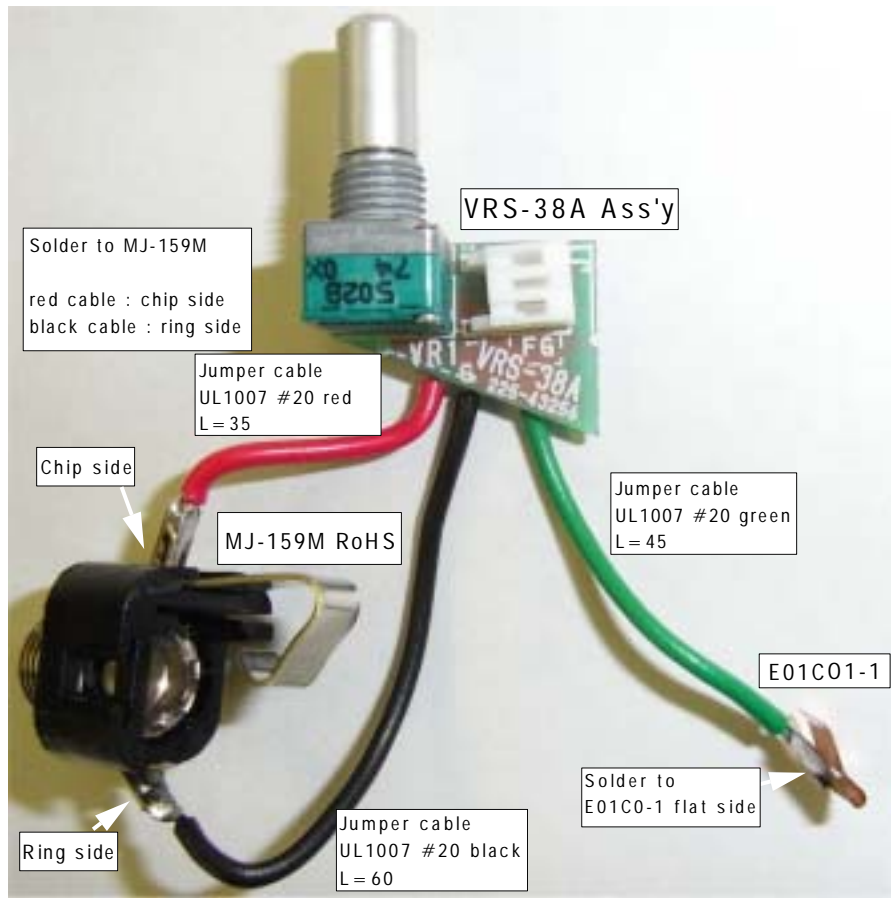
6.REMOVE THE JACK VOLUME ASS'Y:



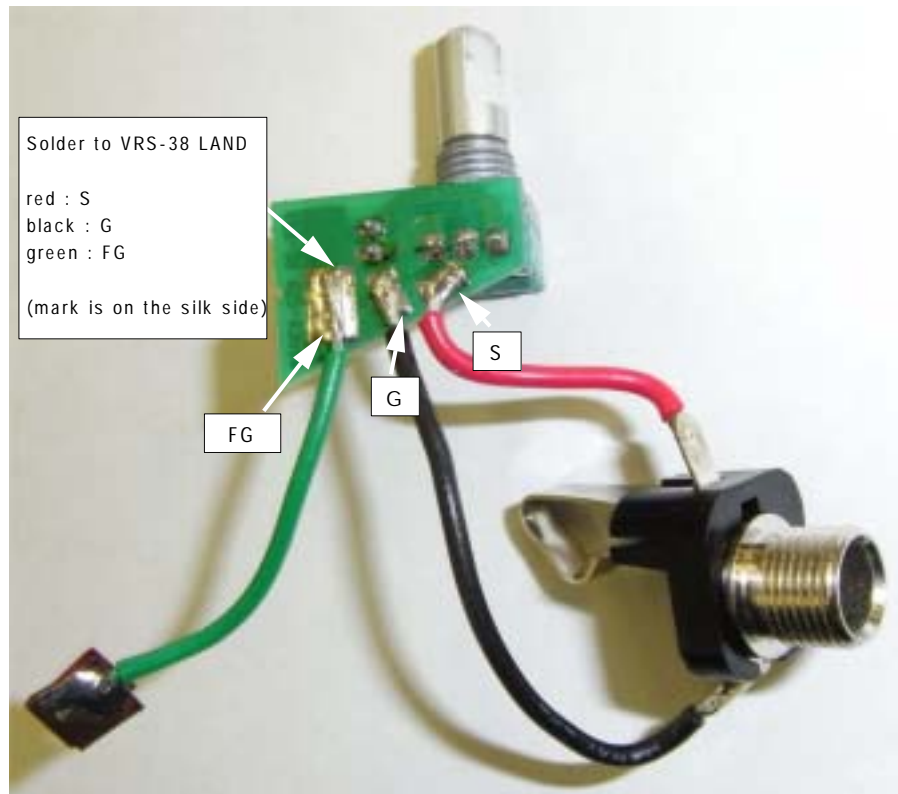
- ◆ Remove a hexagonal jack volume ass'ys nut (A), M9). Pull out a volume knob (B). Remove the hexagonal nut (C). Pull out an earth, then take the jack volume ass'y out from the side cover.

4. WIRING CONNECTION (JACK VOLUME ASS'Y)

Front side

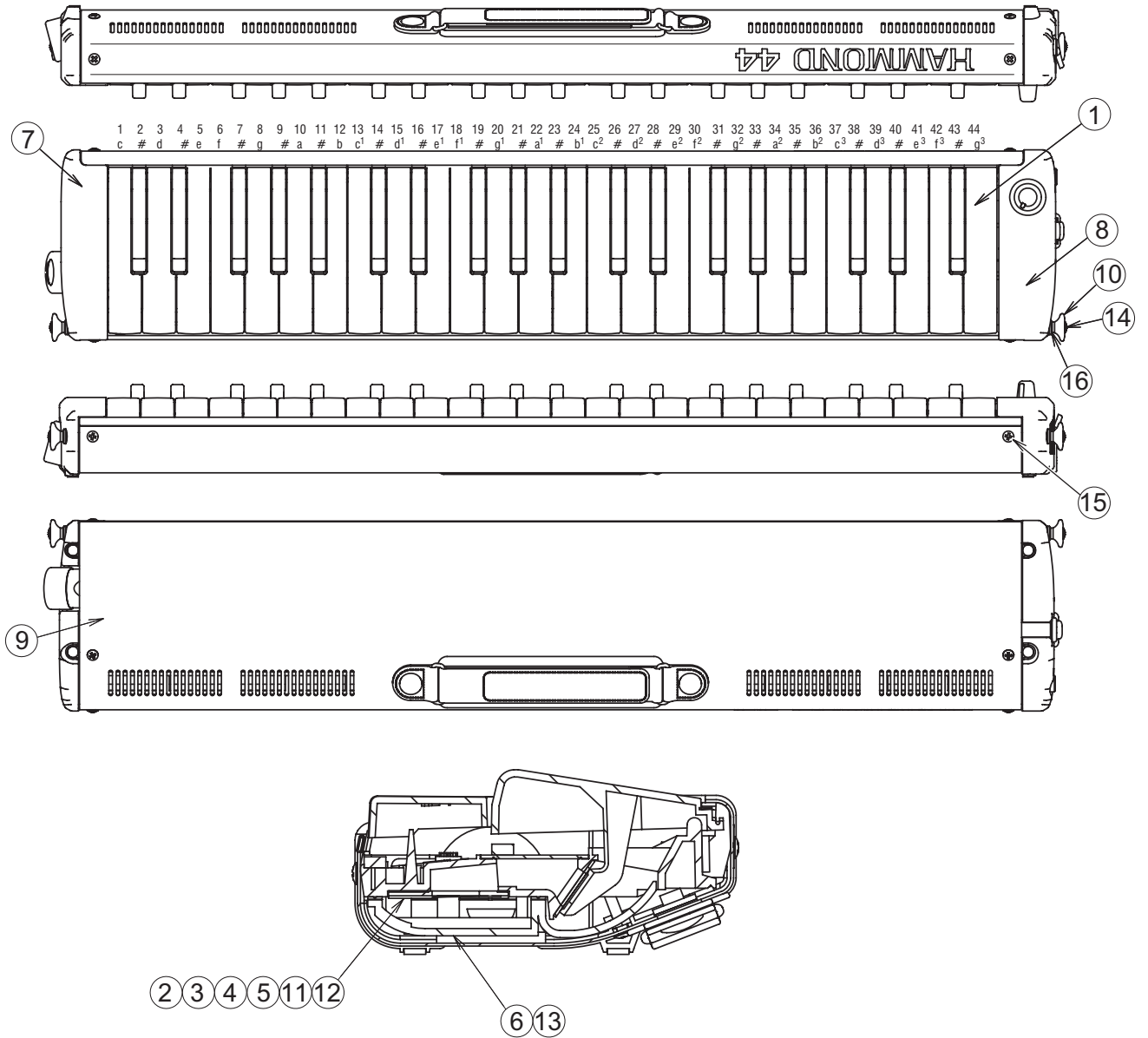


Back side



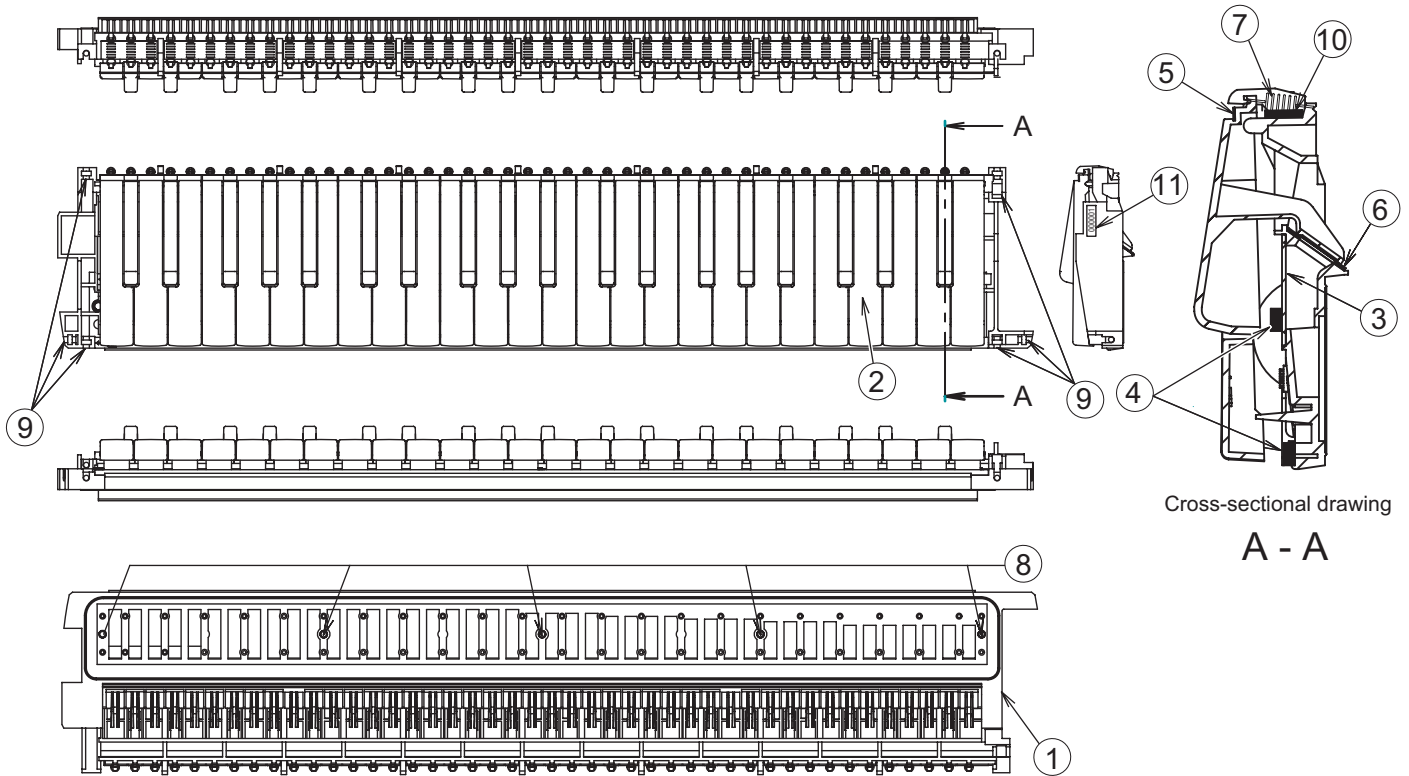
6.PARTS LIST

1. FAINAL ASS'Y (10051-01101)



① Keyboard ass'y	10051-02101	⑨ Cover ass'y	10051-02105
② Bass plate ass'y	00290-00039	⑩ Strap pin(Shoulder strap pin, black)	00343-01010
③ Middle plate ass'y	00290-00040	⑪ Sheet packing	00453-00058
④ High plate ass'y	00290-00041	⑫ Tapping screw type2(Round head, 2.3x6.5, BsNi)	00620-02301
⑤ Top high plate ass'y	00290-00042	⑬ Machine screw(Oval head M3x15, BsNi)	00709-23015
⑥ Air box ass'y	10051-02102	⑭ Machine screw(Truss, M3x16, Trivalent black)	01703-63016
⑦ Bass side cover ass'y	10051-02103	⑮ Machine screw(Super thin, flat screw, M3x8, Ni)	00700-03006
⑧ Treble side cover ass'y	10051-02104	⑯ Washer Ø3, Trivalent black	01753-33000

2. KEYBOARD ASS'Y (10051-02101)



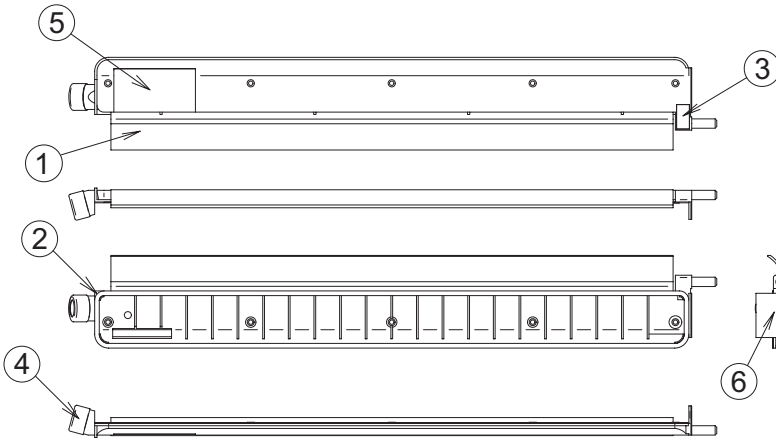
Cross-sectional drawing
A - A

① Body	00452-00017	⑦ Coil spring	00451-00100
② Keyboard set 14	00290-00014	⑧ Insert nut	00451-00150
③ Air lid 1	00452-00031	⑨ Square nut(Trivalent white)	01724-63000
④ Keyboard cushion	00453-00059	⑩ Key cushion	00453-00049
⑤ Rear rim	00453-00061	⑪ White Label	00412-13018
⑥ Valve packing	00453-00062		

- Keyboard set 14 -

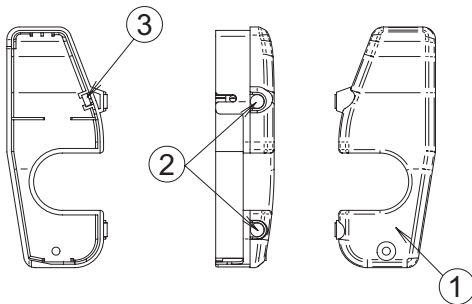
1.White key C	00452-00259
2.White key D	00452-00260
3.White key E	00452-00261
4.White key F	00452-00255
5.White key G	00452-00256
6.White key A	00452-00257
7.White key B	00452-00258
8.White key RG	00452-00279
9.Black key	00452-00263

3. AIR BOX ASS'Y (10051-02102)



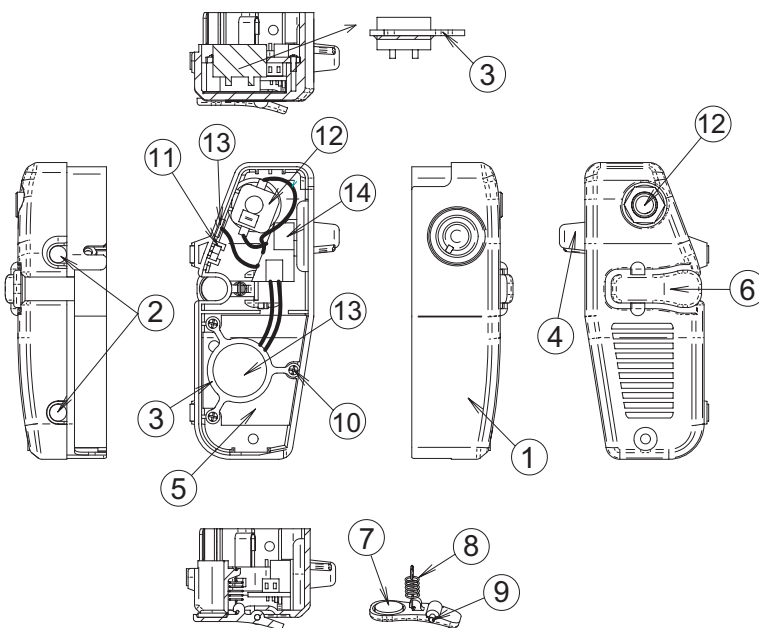
① Air box	00452-00110
② Air box packing C	00453-00063
③ Air lid 2	00452-00032
④ Cup	00451-00172
⑤ Rubber Rubber 1	00453-00070
⑥ Rubber Rubber 2	00453-00057

4. BASS SIDE COVER ASS'Y (10051-02103)



① Bass side cover	00452-00086
② SW urethan stopper	00453-40116
③ Square nut(M3, Trivalent white)	01724-63000

5. TREBLE SIDE COVER ASS'Y (10051-02104)

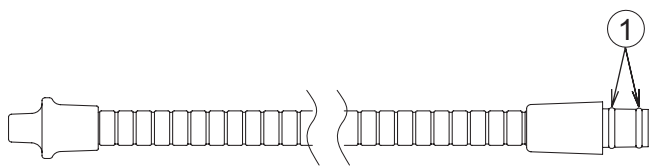


① Treble side cover	00452-00087
② SW urethan stopper	00453-40116
③ Tripod fixing rubber for mike	00453-00064
Dynamic mike unit	00315-15007

(These 2 parts are sold in sets. Please order by the set.
You will receive an assembled parts.)

④ Volume knob	00453-00321
⑤ Nonwoven cloth	00453-00065
⑥ Spit-valve	00452-00324
⑦ Spit-valve packing	00453-00066
⑧ Coil spring	00451-00100
⑨ Spit-valve shaft	00451-00180
⑩ Tapping screw type 2 (Round head, 2.3x6.5, BsNi)	00620-02301
⑪ Square nut(M3, Trivalent white)	01724-63000
⑫ Jack volume Ass'y	10051-02106
⑬ Jack MJ-159M-RoHS	00318-04122
⑭ EC1C01-1	00335-02016
⑮ Volume RK097111050R	00358-30064

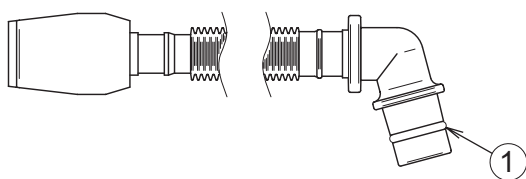
6.FLEXIBLE MOUTHPIECE ASS'Y(00290-00084)



① O-ring

00453-00032

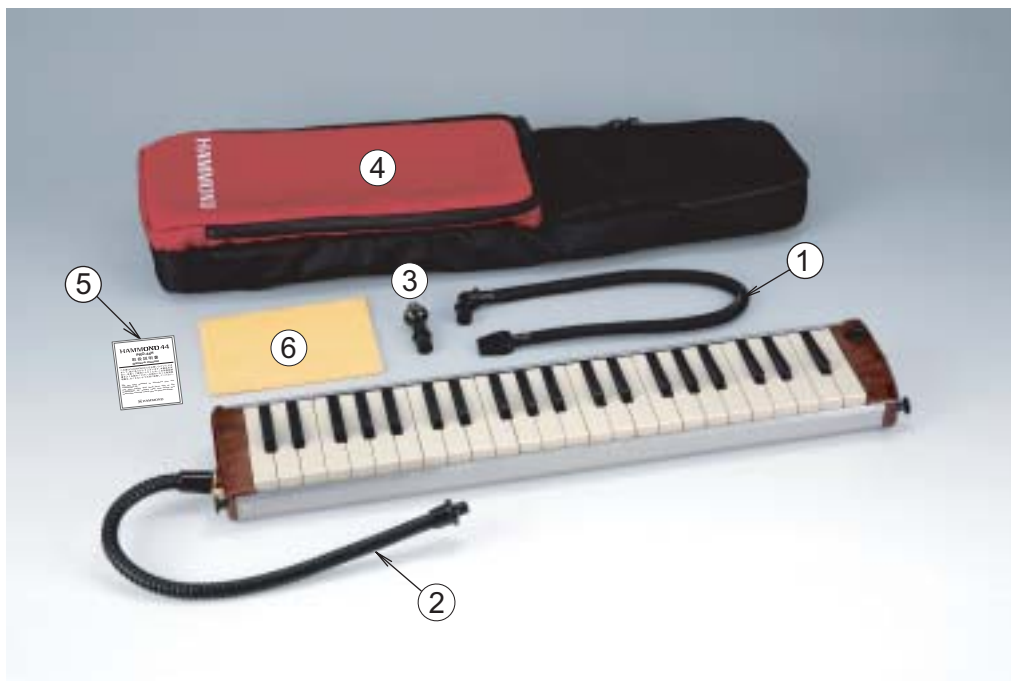
7.MOUTHPIECE WITH TUBE AND L-SHAPED JOINT(00290-00092)



① O-ring

00453-00032

8.ACESSORIES



- | | | | |
|---|-------------|---------------------|-------------|
| ① Mouthpiece with tube and L-shaped joint | 00290-00092 | ④ Soft case PRO-44H | 00453-00072 |
| ② Flexible mouthpiece | 00290-00084 | ⑤ Manual | 00457-00010 |
| ③ Short mouthpiece | 00290-00083 | ⑥ Cleaning cloth | 00453-00045 |

7.HOW TO ADJUST THE REED

1.Required JIG to adjust reeds

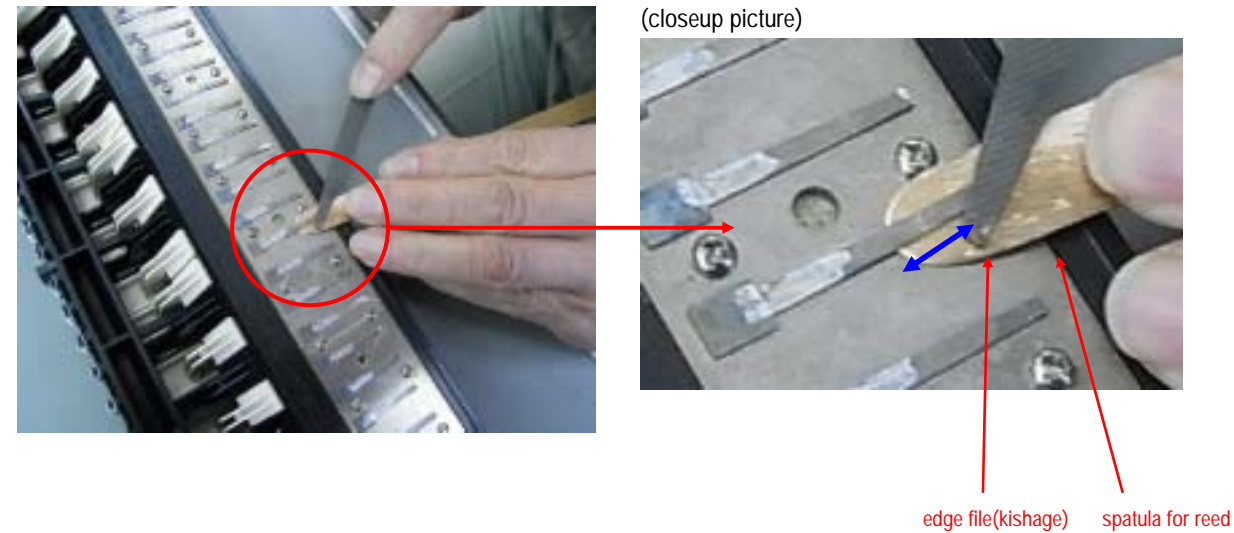
We recommend the following toolset.
Product name : Harmonica repairing tool set (Code : 11790)
Contents : spatula for reed, screw driver (+), edge file (kishage)

2.How to adjust the reed

- 1.Follow "Disassembling procedure". Remove the cover ass'y and the air box.
- 2.Adjust reed as follows.(Please do not file too much. It will make the reed life shorter.)

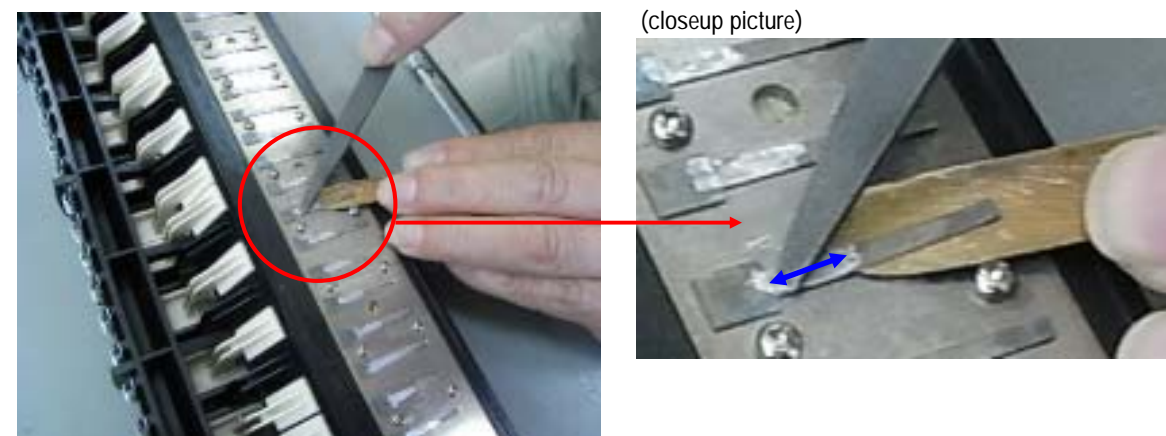
How to tune up

Place a spatula under the reed.
File a reed lightly from the edge to 3-5mm upward with an edge file.
Check the tune with a tuner each time after you file 3-4 times and adjust to the right tune.
(Any burr on the side and edge has to be filed down after tuning.)



How to tune down

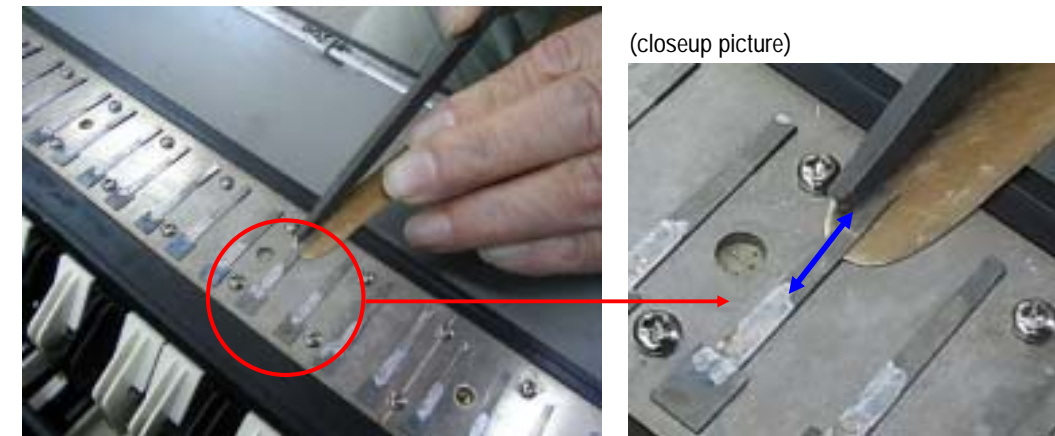
Insert a spatula under the reed up to 2/3 ahead from the edge. (Do not push the spatula too hard.)
File a reed lightly from the base to 3-5mm downward with a edge file.
Check the tune with a tuner each time after you file 3-4 times and adjust to the right tune.
(Any burr on the side and edge has to be filed down after tuning.)



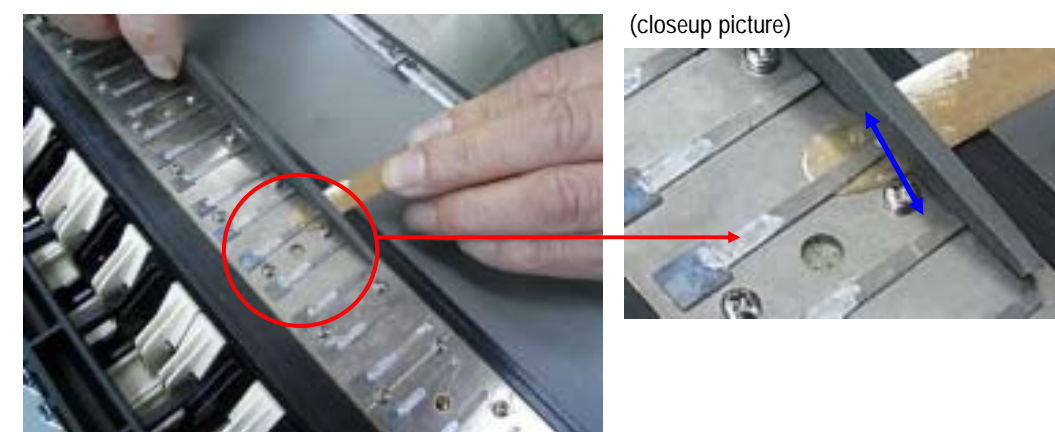
After you finish tuning, file down all burr from both side of reed.

* To prevent a fluttering sound, stop a reed hitting a plate by sanding all burr.

File down all burr from both side of reed.



File down all burr from the edge.



- 3.Assemble the air box and check the sound by a tuner.
- 4.Repeat procedure 2 and 3 until you adjust rightly.
- 5.Assemble the cover via backward process of procedure 1.