

TOOLS & AIDS



HOHNER


Illus. C04-01

For this workshop we recommend the »HOHNER SERVICE SET MZ99331, which includes all the basic tools necessary for harmonica maintenance as shown in these workshops.

A compact and highly recommendable toolkit for the first steps in harmonica maintenance. The set is suitable for both diatonic blues harps and chromatic harmonicas and enables basic maintenance work such as adjusting reed offsets, tuning and centering reeds, exchanging faulty windsavers and maintaining the slide assembly.

For this Workshop C04 – Centering you will need the following tools:



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Tool 2:
Reed Lifting Blade with Reed Wrench

An essential tool for many reed adjustment operations.

Featured in workshops:

- »Workshop C04 - Centering
- »Workshop C05 - Regapping
- »Workshop C07 - Tuning

C04 – Centering

STEP 01 - Basics of Centering



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A harmonica reed is basically a spring which is affixed at one end over a slot in a reed plate, through which, when blown, it oscillates at a frequency determined by its length and elasticity. Every time it passes through the slot it periodically interrupts the airstream. This causes the airstream to resonate at the same periodic frequency and these vibrations are further amplified and modified in the vocal tract of the player. The combination of these factors creates the sound heard by the listener.

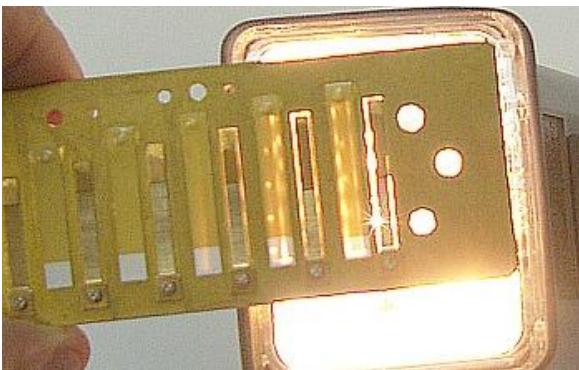
In order for it to function it's therefore essential that the reed can oscillate freely without touching the sides of the slot at any point.

For a variety of reasons, reeds can sometimes get pushed out of alignment and brush the sides of the slot:

- negligence when removing the covers, cleaning the instrument or the reed plates
- overtightening cover or reed plate screws
- the instrument incurred lateral knocks or was severely shaken
- through the reed material settling after assembly, often weeks later
- through adjusting the reed offset
- after reed replacement
- shortly before a reed breaks

This means that learning to center harmonica reeds is one of the basic skills which the player should master.

STEP 02 - Centering: Basic Adjustments



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It's often possible to check whether a reed is brushing the slot by plinking it.

If you place the reed plate in front of a light source, you can usually see if the reed isn't centered parallel to the sides of the slot. It's a big help here to gently push the reed tip into the slot with your thumbnail while looking at it against the light, as sometimes the defect isn't visible when the reed is in its rest position.

C04 – Centering

STEP 03 - Centering while the instrument is assembled

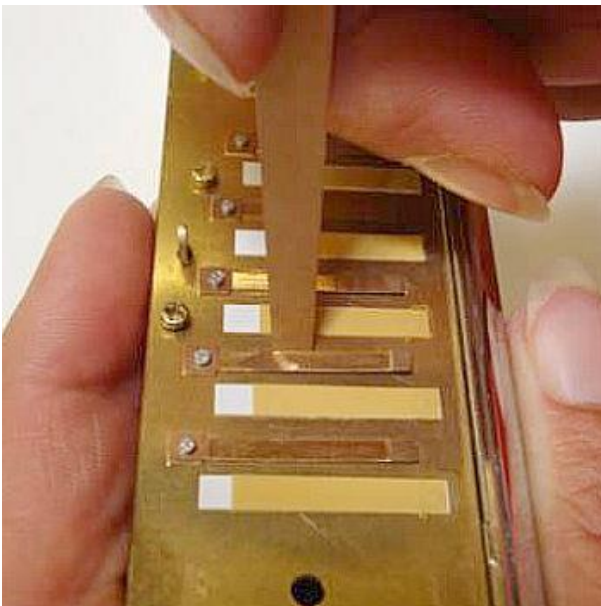


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The procedure described in STEP 02 can only be followed if the instrument is disassembled and the reed plates and windsaver have been removed.

However, as the slot tolerances around the reed are so narrow, simply tightening the reed plate screws can warp the reed plate sufficiently to cause the reed to brush the sides of the slot. For this reason it's essential to be able to make fine adjustments while the instrument is assembled.

III. C04-07 shows how to center an inside reed by levering it very gently from the side with the flexible tip of the reed lifting tool. With a bit of practice this is possible even when the windsaver is in place.



Illus. C04-6

The same method can equally well be used for reeds mounted on the outside of the reed plate. It's necessary to be very careful with the windsaver, which is on the inside of the reed plate and isn't visible.

With practice it's possible to do this without damaging the valve.