

User Guide

# THE TuneMaster™ Harp



*The harmonica you can tune!*

\* picture not of actual TuneMatic

with  
MagnaTuneAmatic™ technology

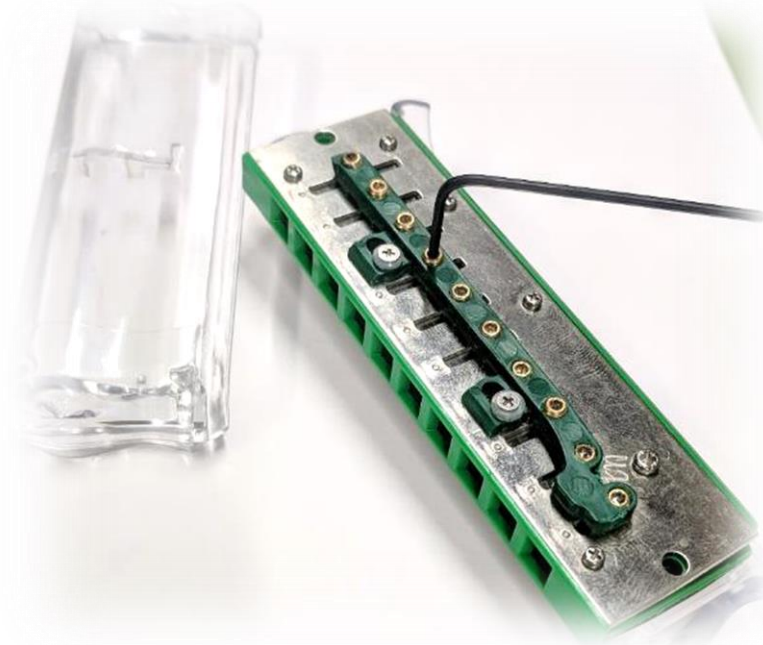
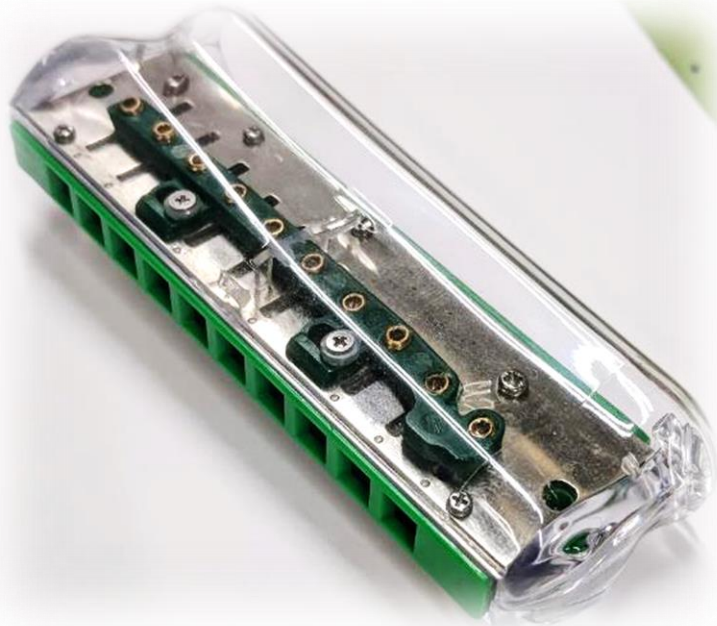
FROM: **TurboHarp**®  
HARMONICAS OF THE FUTURE™

*Stay TUNED!* 😊

US Patent 8,802,949



Congratulations on being one of the first inhabitants of planet Earth to own a **TuneMaster™™** harp – the world's only tuneable harmonica. We hope you have fun with it, and greatly appreciate your support... and constructive feedback.

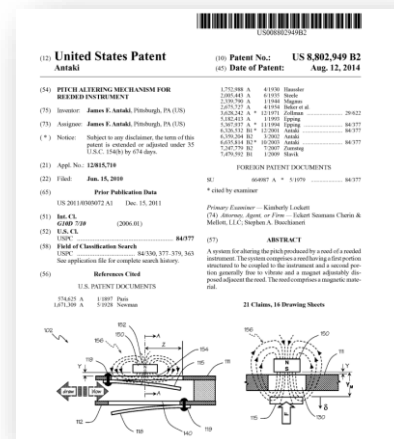


TuneMaster™ - THE ONLY TUNEABLE HARMONICA  
 The Worlds First and ONLY Tune-able harmonica  
 Based on our patented magnetic tuning technology  
 Tune any reed precisely, with just a twist of a small screw...

AMAZE your friends!

*Customized from the Seydel Session Steel*

So ingenious, its even patented! (US Patent 8,802,949)



Have you ever wished that you could tune your harmonica like your friends with the guitar, or banjo, or fiddle, or... just about every other instrument in the band?

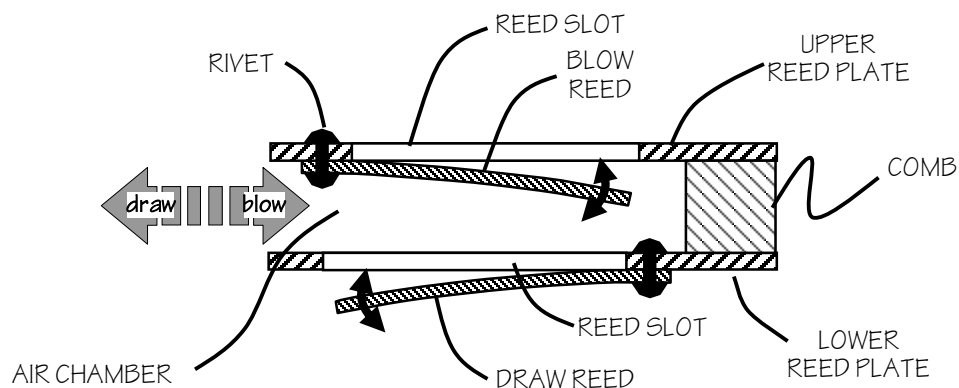
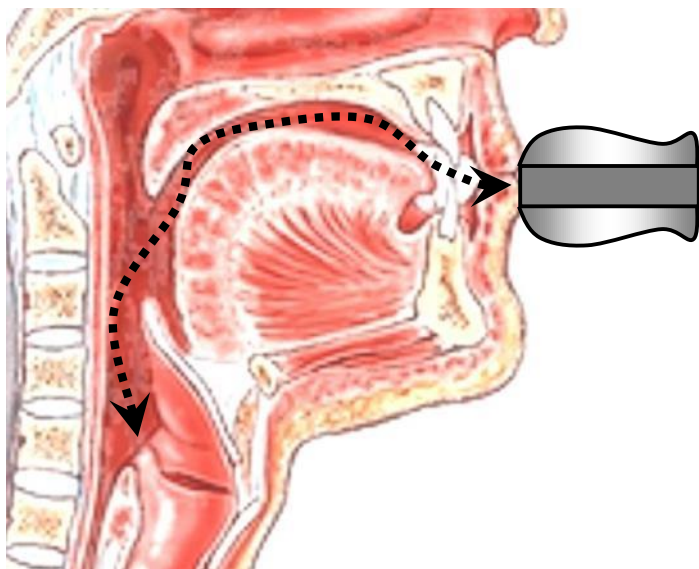
Have you ever found the courage to try tuning your harmonica the old fashioned way: with a file or scraper? If so, how did that go for you? Did you get it right the first time? Or did you discover that you were a little over zealous filing the tip, causing you to compensate by filing the root? Or vice versa. Did you manage to pull off this precarious feat without causing more harm than good?

If so. We feel your pain! And that's why we've developed the TuneMaster™ – the first and only tune-able harmonica.

TuneMaster™ [enter stage left] “Ta da!” (4B, 4D)

By the way. Because the TuneMaster™ is so new, we really don't appreciate all it can do, and all you can do with it. So we really appreciate your feedback and creative suggestions. Feel free to play around with the tuning... its virtually impossible to cause damage; and even if you do, we will fix it for you.

Since the very origins of the harmonica, dating back to the early Chinese Sheng 3000 years ago, its physical principles of operation have remained basically unchanged. The sound generator, the free reed, produces a note by periodically interrupting the flow of air through the instrument. The pitch of the note produced by reed is determined by three factors: its mass, its stiffness, and the resonance of the air path (which includes the player's oral cavity.)

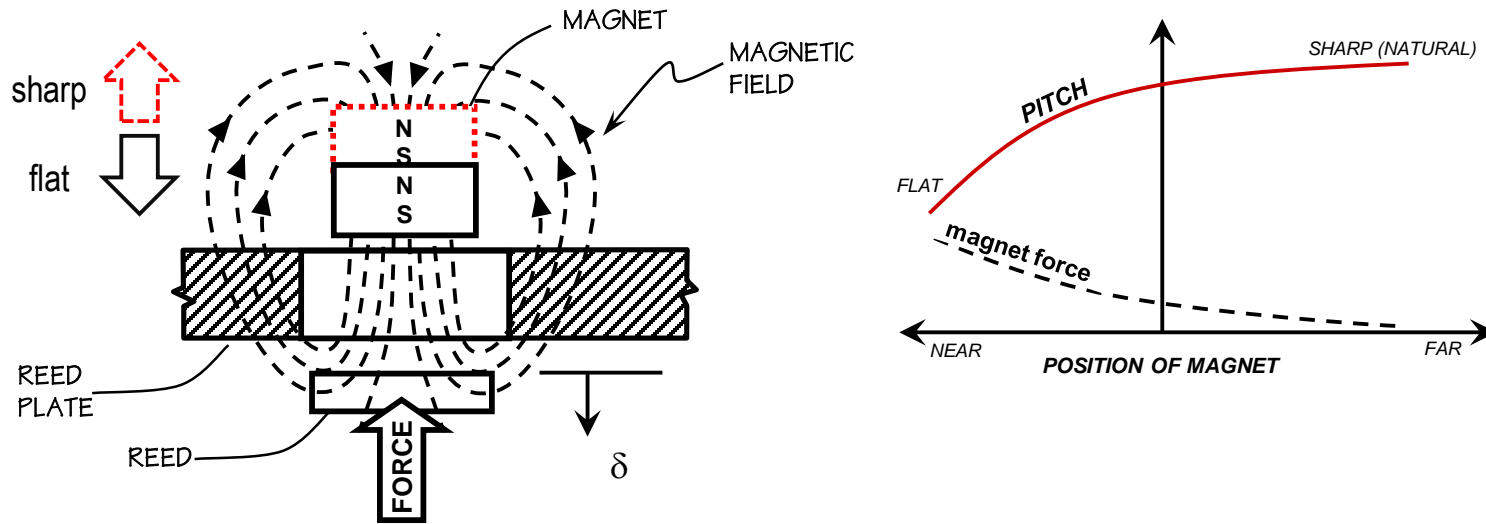


Cross Section of the Diatonic Harmonica

As you are probably aware, the player may alter the mass and stiffness the reeds by sanding, scraping or filing material from either the tip or the root, respectively. He/she may also modulate the resonance of the air path through *bending* or *overbending*.

## MagnaTuneAmatic technology

The TuneMaster™ is based on our patented magnetic-tuning technology. The same as found in our popular *TurboSlide*



Like the *TurboSlide* a permanent magnet placed adjacent to a paramagnetic reed will reduce its stiffness. Lower stiffness means lower pitch. Moving the magnet closer will flatten the pitch.

Note: since the magnetic force can only tune the pitch down, we use a little trick to tune up. (Can you guess?) We pre-tune the reeds a little bit sharp, about 50 cents or so, and then position the magnet to bring the pitch back in tune.

Tip: on lower-tuned harps (like G, A, Bb) it is possible to flatten the pitch by two or three semitones. So you could, ostensibly create an “open tuning” like your guitar player friends.

altered tone

MELODY MAKER	C	E	A	C	E	G	C	E	G	C
NATURAL (HARMONIC) MINOR	C	Eb	G	C	Eb	G	C	Eb	G	C
BLOW TONES	C 262	E 330	G 392	C 523	E 659	G 784	C 1046	E 1318	G 1568	C 2092
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
DRAW TONES	D 298	G 392	B 494	D 587	F 698	A 880	B 968	D 1191	F 1397	A 1760
NATURAL MINOR	D	G	Bb	D	F	A	Bb	D	F	A
HARMONIC MINOR	D	G	B	D	F	Ab	B	D	F	Ab
MELODY MAKER	D	G	B	D	Fb	A	B	D	Fb	A

HOLE →

*Just one word of caution: because the magnets “pull” as well as de-tune, the blow reeds might get pulled shut; and the draw reeds might get pulled open. If this happens, you need to re-gap the reeds... usually a teeny tiny bit.*



## TUNING & TWEAKS

**Reed Gapping.** Due to the attractive force of the TuneMaster™ magnets, they tend to reduce the gap of the blow reeds, and enlarge the gap of the draw reeds – a little bit. This might cause the blow reed to “choke” and/or the draw reed to become leaky. If you find this to be the case, you need to adjust the gap... but just a little bit. Instructions how to do this are available on several websites, including ours.

**Beware of Moon Dust:** This TuneMaster™ magnets are strong. And everything magnetic sticks to them. If, perchance you are not careful about where you store your harp, or if you play out, say, at a machine shop, there is a possibility of magnetic particles becoming trapped between the magnet and the reed. This will cause the reed to buzz, or become unplayable. If this happens, slide a strip of adhesive tape under the magnet to draw out the offending “Moon dust.”

*If you run into any kind of trouble, don't hesitate to contact us. We are committed to making your TurboSlide experience a satisfying one. If we cannot solve your problem remotely, we are pleased to service your harp in our shop.*

## FREQUENTLY ASKED QUESTIONS

- Can I tune both the blow reeds and the draw reeds? Yes! And as a matter of fact this was the main reason that it took so long to develop the TuneMaster™... figuring out the puzzle of inserting the bottom magnets inside the harmonica cover plates.
- Can I slide bend the notes, like the TurboSlide? No. Unlike the TurboSlide, which has magnets on a rack that slides left and right; these magnets are in a fixed position laterally.
- Will you ever offer a TurboSlide which bends both the blow and draw reeds? Possibly. It has been on our to-do list for years. (As has been the TuneMaster™.) If the harmonica gods are willing... we will get to it eventually.
- Can I remove the magnets from the TuneMaster™? Yes. See below
- What happens if I remove the magnets of the TuneMaster™? You might do this for two reasons. Lets break it down. If you wish to remove the magnets because you don't like having them, and want to return the harmonica to its original state, then one of two things will happen. Either (a) the entire harp will increase in pitch by a semitone (e.g. from Bflat to B); or (b) the entire harp will increase in pitch by 50 cents. In case (a) you can simply play the harp as-is, albeit in a different key. In case (b) you need to unfortunately retune each of the reeds the old fashioned way, by either raising or lowering the pitch (filing the tip or the root). I would advise raising the pitch (filing the tip.)
- Can I adjust the temperament of the TuneMaster™, like Equal Tuning, Compromise Tuning, or ??? Yes, totally. This is a perfect job for the TuneMaster™.
- Can I adjust some reeds (notes) differently than others, say to create a natural minor? Yes... in most cases, you can lower the pitch a semitone to flatten the 3rd, 5th, 7th, etc... unless the reeds start buzzing.



## FREQUENTLY ASKED QUESTIONS - II

- Do the magnets affect the timbre (tone) or play-ability of the harp? To be honest... possibly. This is one of the reasons that we offer a 60-day satisfaction guarantee. There are two reasons. One reason is that the springy-ness of the magnets is non-linear. Meaning that it depends on the magnitude of the excursion of the reeds. Hence the pitch might be affected by how hard you play. The second reason is because the magnets might open or close the resting gaps of the reeds, which might cause them to seem leaky, or to choke. This is usually easily correctible with a little regapping.
- Do you offer a version of the TuneMaster™ that is not based on the Seydel Session Steel, like Lee Oskar, Hohner, Suzuki? Not right now. We rely on the stainless steel reeds, which are slightly magnetic, unlike every other harp which uses brass, phosphor bronze, or other alloys. But maybe in the future.
- Why does it take so long for you to fill my order? Its because each harp is assembled by hand, to order. Normally, I try to turn around orders within a week; but sometimes if I'm traveling, or extra busy it might take two weeks. Rarely more than three. Thanks in advance for your patience.
- Why is the TuneMaster™ more expensive than the TurboSlide? Good question. Its because the TuneMaster™ uses twice the number of magnets, which are surprisingly expensive, and also requires twice the amount of work to assemble and set up.
- Can I get the TuneMaster™ in any color? Yes, just send us a note in the "special instructions" box, or via email.
- What if I don't like the TuneMaster™? You are welcome to return it within 60 days for a full refund. (2x our usual 30 day satisfaction guarantee.