

Congratulations on your purchase of the innovative TurboHarp-AX/S20.

We hope you find that this harp enhances your overall harmonica-playing experience. Thanks for your patronage.

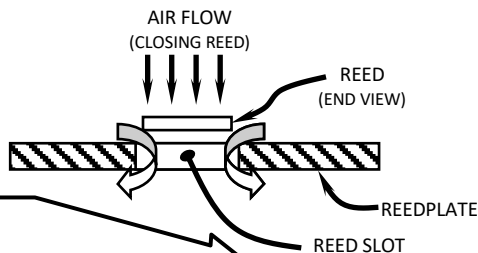
Helpful Hints

1. Because of the patented "TurboLiner" that has been fitted to the TurboHarp-AX/S20 – you will notice that you will require less air flow to play the harmonica. This may feel unnatural at first, and may even cause notes to "choke" when played with a hard attack. It is recommended that you relax, and allow yourself to adjust to the unique "feel" of the AX/S20.
2. The TurboHarp-AX/S20 is set up for facilitating overblow and overdraw notes. If, even after relaxing, you find notes choke regularly, you may wish to *slightly* increase the offset gap between the offending reed and reed plate.
3. Some reeds have been fitted with a small piece of "TurboTape" to eliminate squealing. Consequently, excessive moisture may cause the pitch to drop slightly. If this proves to be a problem, you may remove the tape with a pair of tweezers.
4. If a reed suddenly fails to sound, the likely cause is a small particle or fibers, such as lint in the reed slot. Due to the close tolerance between the reed flanks in the AX/S20, this may occur more than usual. To remedy the problem, remove the TurboLids, and "floss" the sides of the reeds with a thin piece of shim stock, or thin plastic sheet.
5. The TurboLiners are not designed to be removed or replaced. Return the harp to TurboHarp Express for repair.

"HOW IT WORKS"

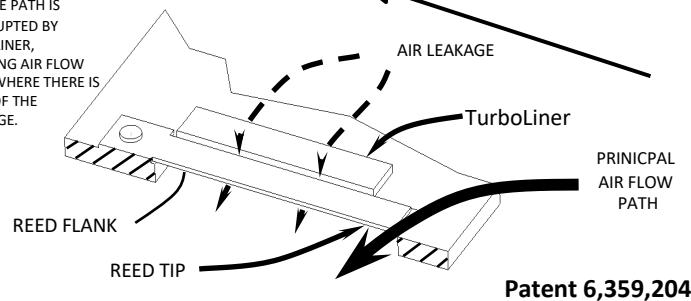
CONVENTIONAL HARMONICA

AIR LEAKS PAST FLANKS WHICH DOES NOT CONTRIBUTE MUCH TO SUSTAIN VIBRATION



TURBOHARP/AX CONCEPT

LEAKAGE PATH IS INTERRUPTED BY TURBOLINER, FAVORING AIR FLOW AT TIP WHERE THERE IS MOST OF THE LEVERAGE.



Patent 6,359,204

Order More at:
www.turboharp.com

© **ANTAKAMATICS, INC.**
PITTSBURGH, PA

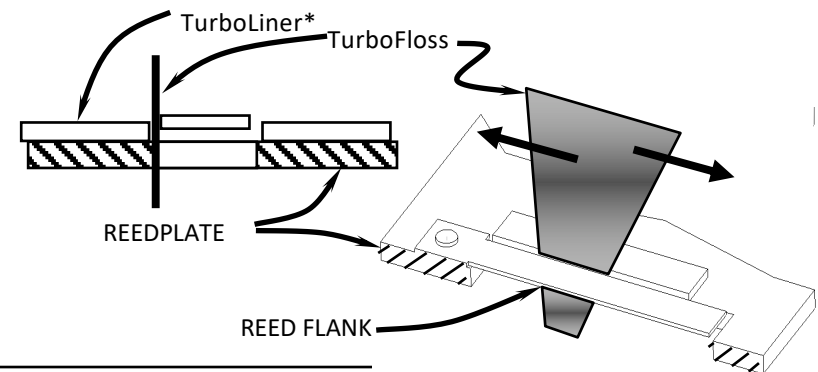
TurboHarp-AX/S20

Notes Concerning Overblow/Overdraw Setup

- If you requested overblow and/or overdraw setup, we have made some additional modifications to further reduce clearances and air leaks. Typically the overblow setup affects holes 4, 5, and 6; the overdraw setup affects holes 7 and 9. In some cases we may have added *TurboTape* to the blow reeds 4, 5, or 6; and/or draw reeds 7 or 9.
- Please note that debris may collect in the *TurboLiner* over time, causing the reed to jam. This can usually be corrected by gently plucking the reed one or several times.
- Please note that there is a tradeoff between a "tight" harp, which overblows easily and one that chokes with a hard attack. For best results, avoid blowing too hard. For straight notes, try to lower your tongue; for overblows, raise your tongue (like a blow bend.)
- You might also find the need to adjust clearances of some reeds to suit your personal preference.
- Please note that overblows are very difficult to achieve on low-keyed harps, such as G and below.

Remember to Floss Regularly

The tolerances on your Turbo/AX are very tight – much more so than a conventional harmonica. This is what provides its great compression. But it also makes it more susceptible to reed jamming due to buildup of oxidation and crud. Even a small piece of lint can cause a reed to jam. Using a thin piece of brass or stainless steel, such as the enclosed *TurboFloss*, you should be able to dislodge any crud that might have deposited along the flank of the reed within the slot.



© **ANTAKAMATICS, INC.**
PITTSBURGH, PA

rev. 10.31.04, 7.10.09

"Tell all your friends."

th-AX-S20-001 (9.5.2001)