Technopipes Mk. II operation manual (GHB/Smallpipes version)

EARPHONES

Use a pair of ordinary stereo earphones. (Typically 16 Ohm impedance and Ø3.5mm stereo plug.)

DO NOT USE MONO EARPHONES AS THIS MIGHT DAMAGE THE CIRCUITRY.

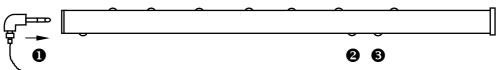
SWITCHING ON/OFF

The chanter is switched on by connecting the earphones to the upper end of the chanter **1** and switched off by disconnecting the earphones.

REMEMBER TO DISCONNECT THE EARPHONES TO SAVE THE BATTERY WHEN THE CHANTER IS NOT BEING PLAYED.

SETTINGS

All settings are controlled by the +control 2 button and the -control 3 together with a specific fingering combination for each setting.



<u> </u>						
Setting	fingering combination	+control 2	-control 3	both 2 3		
Drones on	•					
Chanter on / Recording	•••••	increase playback speed	recording mode / normal mode			
Sound off	• • • • • • •	turn sound off	/ stop recording / par	use playback		
Sensitivity (option 1)	• • • • • •	increase	decrease	-		
Sensitivity (option 2)		increase	decrease	(N.B. Factory reset.)		
Pitch	• • • • •	increase	increase decrease			
Metronome		increase tempo	decrease tempo / add sub-beat	turn on / turn off		
Drones		increase volume	decrease volume	tuning A > A+E > A+D		
Sound		smallpipes	highland pipes	-		
Scale		chromatic < chroma (eq. temp.)	atic < GHB < GHB (basic)	-		
Factory reset		-	-	Restore factory settings. Marked in bold in this chart.		
Volume	• • • • • •	increase	start volume			

Setting (cont.)	fingering combination	+control 2	-control 3	both 23	
Reverb		increase	decrease	switch on / off	
MIDI	• • • • •	increase chanter channel no.	decrease chanter channel no.	enter MIDI mode	

VOLUME

The output volume depends to some extent on the type of earphone plugged in.

PLAYING AT HIGH VOLUME MIGHT DAMAGE YOUR HEARING.

PLAYING

The contacts of the chanter are electrical and not mechanical, meaning they do not have to be pressed down to become activated. The grip does not have to be any firmer than that on the real pipe.

Start-up sequence:

- 1) (OPTIONAL) Start drones by playing the *Drones on* fingering combination.
- 2) Start chanter by playing the *Chanter on* fingering combination.

NB.: The drones have to be started before the chanter.

A sligh reverb effect is on by default to give a bit of depth to the sound.

SENSITIVITY

It could happen, from time to time, that your fingers are very dry, causing them to become poor conductors. The chanter, being dependent on electrical conductivity, may then have some trouble playing the note your fingers indicate, instead producing a squeaky sound, or the wrong note. You then need to increase the sensitivity. Sometimes, on the other hand, your fingers may be very warm and short-circuit the chanter through a very thin film of sweat, so that the chanter fails to detect that a finger no longer is on a contact. You then need to decrease the sensitivity. The sensitivity can be set to five different levels.

PITCH

With *Sound* set to Smallpipes, the chanter starts in the key of A (220Hz), and the low A goes from 92Hz up to 369Hz. With *Sound* set to Highland Pipes, the chanter starts in the key of Bb (466Hz), and the low A goes from 185Hz up to 738Hz. The key of the chanter can easily be set to A, Bb, C, or D.

The pitch of the drones will follow the chanter.

MIDI

MIDI (Musical Instrument Digital Interface) is an electronic communications protocol that enables electronic musical instruments, computers, and synthesizers etc. to communicate with each other. MIDI does not transmit an audio signal - it transmits digital data messages defining parameters such as pitch and volume of the musical notes to play. See http://www.midi.org for further reading.

MIDI mode is entered when MIDI combination is fingered at the time the MIDI cable is connected. The chanter is initially set to channel 1, but can be set between 1 and 14. The bass is fixed on channel 15 and the tenor fixed on channel 16. The default Low A is MIDI note number 69 (A5). (In MIDI mode, metronome and recording are not available.)

METRONOME

Set the tempo like this:

- 1) Hold the *Metronome* fingering combination.
- 2) Beat the tempo once on the +/-controls (both contacts at the same time).
- 3) (OPTIONAL) Add sub-beats by touching the -control.
- 4) Beat the tempo again on the +/-controls to set the main beat.
- 5) The metronome continues in that tempo.
- 6) Touch + or control again holding the *Metronome* fingering combination to adjust tempo.

To start the metronome in a given tempo, start like this:

- 1) Hold the *Metronome* fingering combination.
- 2) Touch +/-controls once (both contacts at the same time.)
- 3) The metronome starts at a 100 bpm tempo.
- 4) Touch + or control again holding the *Metronome* fingering combination: the metronome increases or decreases tempo in 4 bpm steps.

RECORDING

The chanter can record more than 2500 notes. You can play along with the recorded notes to practice phrases, seconds, etc. When recording, the first note and the last note preceding the *Sound off* note are not stored for simplifying the creation of loops. The recorded track is played back on the right channel, and you play along on the left channel. The playback speed can be set between ½ and 2 times the recorded speed. The recording is erased when recording mode is exited, or when the earphones are disconnected.

Typical recording sequence:

- 1) Start drones and chanter.
- 2) Play the *Recording* fingering combination.
- 3) Put your lower hand thumb on both the +control and -control. A high-pitched beep indicates recording mode.
- 4) Record as long as you like, or until the memory is full (indicated by a low-pitched beep).
- 5) Play the Sound off note.
- 6) Start playback by turning drones on.
- 7) Start chanter and play along.
- 8) Exit recording mode by 2) and 3) above. A low-pitched beep indicates normal mode.

SCALE/TUNING

The chanter can play four different scales:

- 1) The standard GHB/SP scale without vibrato sound, tuned to harmonise with the drones: aka harmonic tuning.
- 2) The standard GHB/SP scale plus C natural and F natural, also with harmonic tuning.
- 3) A full chromatic scale, also with harmonic tuning.
- 4) A full chromatic scale with equal temperament tuning. (This tuning is usually the best when playing together with other instruments. N.B.: with this scale some notes may seem out of tune with the drones.)

low G	low A	Вb	В	C natural	၁	D	Eb	Е	F natural	F natural	F natural	Ŧ	high G	high Ab	high A
•	•	•	•	•	•	•	•	•	•	•	•	•	•	0	0
•	•	•	•	•	•	•	•	•	•	•	•	•	0	•	vO
•	•	•	•	•	•	•	•	•	0	0	0	0	vO	•	0
•	•	•	•	•	•	•	0	0	•	•	•	0	0	0	•
•	•	•	•	•	•	0	•	٧٠	•	•	0	٧٠	V	•	V
•	•	•	•	0	0	0	0	•	•	0	•	•	•	•	•
•	•	0	0	•	vO	vO	•	•	•	•	•	•	•	•	•
•	0	•	vO	0	•	•	0	0	0	0	0	0	0	0	0

v = vibrato

GHB (basic)
GHB
Chromatic

•	•		•		•	•		•				•	•		•
•	•		•	•	•	•		•	•	•	•	•	•		•
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

BATTERY

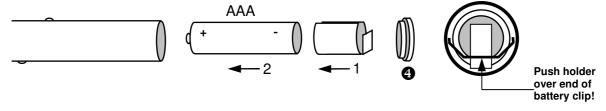
The chanter uses one 1.5Volt AAA/LR03 alkaline battery, or one 1.2Volt AAA/HR03 NiMH rechargeable battery. The chanter will run +30 hours on a 1000mAh NiMH rechargeable battery. A rechargeable battery is recommended.

When the red LED at the upper end of the chanter **①** is blinking slowly, the battery soon needs replacing. When the red LED is on constantly, the battery is near flat.

REMOVE BATTERY IF CHANTER IS BEING STORED FOR A LONGER PERIOD.

CHANGING THE BATTERY

Remove the end cap **4** from the chanter by firmly pulling it outwards. Move the battery holder to the side to allow the battery to slide out slightly. Tap the battery end of the chanter against the palm of your hand in order to get the battery out. Insert the new battery with the **positive** pole first. Make sure the battery holder makes **electrical contact with the negative pole**. Put the end cap back on.



PRECAUTIONS

Do not expose the chanter to high temperatures (e.g. in a car during daytime). High temperatures can damage the battery and distort plastic parts.

Handle the chanter carefully. Dropping it can damage the circuit board and housing, and can cause the chanter to malfunction.

Keep out of reach of small children. Product contains small parts.

TROUBLESHOOTING

Symptom: Chanter does not start at all.

Solution: Make sure the battery is ok. Make sure the battery holder makes electrical contact

with the battery pole.

Symptom: Chanter does not start correctly, or runs only for a few minutes before shutting off.

Solution: Change/charge the battery.

Symptom: Chanter makes a loud clicking noise on one headphone channel.

Solution: Chanter is in MIDI mode. Disconnect and reconnect the earphones without fingering

the combination for MIDI mode.

Symptom: Chanter gets hot by the bottom end.

Solution: Battery is inserted the wrong way. Insert the battery the correct way and use the clip.

Symptom: The wrong node is played, or response is slow.

Solution: Adjust the sensitivity setting.

MAKER

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