Blair™
MELBOURNE, AUSTRALIA

Firmware 1.14

Which firmware should I use?

V1.14 - for all serial numbers (see below)
B1.14 - for serial numbers starting with 2004*XXX*

Only load this firmware if you wish to use the Pitch change and MIDI Grace note detection.

Overview

This firmware introduces the ability to pitch change each instrument 0.1hz increments. Useful when playing with other instruments and digital chanters.

It also adds Grace note detection for recording and using MIDI, and maps the grace note an octave above the primary note played if using a MIDI application.

What and Why?

1. High Resolution Pitch Change

By tuning in high resolution steps of 0.1hz, this can add a subtle nuances to the tone of your instrument, which some argue add more natural resonance to the human ear particularly when playing with other instruments and acoustic instruments.

It also limits an effect that can occur known as ‘flanging’ or ‘phasing’. This when two or more instruments like the Digital Chanter produce identical audio waveforms and are played together. By adding a small amount of variance, similar to acoustic bagpipes, can help reduce the effect.

How would I reduce flanging and phasing when playing with other digital chanters?
The slightest deviation of pitch helps reduce flanging and phasing, and can also emulate a real pipe corp where the pitch from piper to piper is subtly changing as a result of blowing pressure and natural variance.

2. MIDI Grace note detection - used for advanced MIDI applications.

This feature utilises the Chanters inbuilt MIDI interface to send Grace note information to a seperate MIDI number mapped an octave above. From there it can used to your preference, such as scoring music, MIDI events, control changes and controlling midi devices.

For pipers, when sending and recording MIDI data it’s often difficult to distinguish the difference between a note and a grace note after the data is recorded. The Grn Det parameter lets you define a range that your grace notes are detected, identifies the difference between an actual note and a grace note and maps accordingly to your midi application.

This feature effectively doubles the number of MIDI note numbers the chanter is outputting and can be exclusively customised to the way you play. It also allows the potential for many applications such as music scoring, triggering MIDI events and any application or device that can be mapped to a MIDI note and control messages.