Blair™

MELBOURNE, AUSTRALIA

Digital Chanter User Manual 1.3

Register online for software and user manual updates.
www.blairbagpipes.com/support

CE FC

Table of Contents

The parts to your Chanter include:
1. Chanter body
2. Mouthpiece (removable, blowing not required)
3. USB lead
4. Case

Safety & Care
- Handle your Digital Chanter as you would a traditional Bagpipe, with lots of care!
- There are no user serviceable parts to the Blair™ Digital Chanter.
- Do not disassemble the chanter.
- The only removable part is the mouthpiece which can be unscrewed for storage.
- Always check the volume setting before connecting headphones or speakers.
- Do not insert headphones or connect any sound amplification when the volume is high.
- Depending on the power source, connecting both USB and audio input may cause distortion.

Some don'ts for optimal care of your chanter
- Do not apply excessive force to the switch, audio input or USB port.
- Do not leave the chanter in extreme heat, sunlight or cold.
- Do not expose the chanter to rain, wet or moist environments.
- Do not let dust or dirt cover the sensors.
- Do not let liquids near your chanter.
Do not use the chanter in the following environments which can result in malfunction:
- Direct and or extreme sunlight.
- Locations of extreme humidity or temperature.
- Excessively dusty or dirty environments.
- Locations of excessive vibrations.
- Locations with excessive magnetic fields.

Cleaning
- Clean only with a dry, lint and dust-free cloth
- Blow any dust out of finger holes with clean dry air (do not use any hard objects to clean the finger holes).

Battery
The Blair™ Digital Chanter is powered by a lithium-ion battery, charged via the USB port (100mA). In normal use, the battery may provide up to 6hrs playing depending on your chanter's settings.
To increase the power time of your chanter, turn off the OLED, Metronome, EQ and reduce the volume.
Do not expose the battery to excessive heat or use any lead unspecified for charging.
Battery Certification ICR14500 & IEC62133 Rep. NCT17036083I1-1
- To re-charge the battery, use the supplied or a fully compliant USB lead.
- The Battery in this product should only be repaired/ replaced by the manufacturer.
- There may be the risk of explosion if a battery is incorrectly installed.
- Do not expose the internal battery to excessive heat or fire.
When the battery is low, the chanter may malfunction and become unresponsive.

Warranty
Murray Blair Pty Ltd warrants that your Blair™ Digital Chanter will operate as described free of material defect for a period of two years from the date of purchase, when used and operated in accordance with this User Manual.
This warranty is void if:
- Your Blair™Digital Chanter has been disassembled, or repaired other than by Murray Blair Pty Ltd or by a technician authorised by Murray Blair Pty Ltd;
- The safety and care instructions in this User Manual have not been followed;
- Any objects or materials have been inserted into the finger holes;
- Any alterations, modifications or add-ons have been made;
- Damage has been caused by mistreatment or accident;
- The battery has not been correctly stored or recharged in accordance with this User Manual;
- The chanter has been used in unsuitable environments (see above) and this has caused the defect.
If you need to make a warranty claim, follow the procedure below:
In the first instance contact (*sales@murrayblair.com*) as the defect may be resolved by a software update or similar on-line intervention.
If the defect cannot be resolved on-line, return the chanter freight-paid to Murray Blair Pty Ltd at (*37A Green St, Richmond 3121 Victoria Australia)* with a legible copy of your original sales receipt showing the date and location of purchase and your return address. Your chanter will be repaired or replaced and sent to your return address.

Limitation of Liability
The liability of Murray Blair Pty Ltd under this warranty is limited, to the extent permitted by law, to the repair or replacement of the chanter, or the refund of the purchase price.

Disclaimer
When in close proximity to electrical devices, the Blair™ Digital Chanter may malfunction or cause interference. When in direct sunlight, the Blair™™ Digital Chanter sensors may malfunction.
Copyright
Copyright in the sound samples in the Blair™ Digital Chanter is owned by Murray Blair Pty Ltd; the sound samples may not be copied or reproduced in any musical instrument without prior written consent of the copyright owner.
Trademark
Blair™ is a trademark of Murray BlairPty Ltd.

Before we get started

Registration

If you register your chanter you will have access to supportive materials, educational videos and updates to the software and manual.
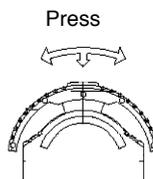
    a.   Go to www.blairbagpipes.com/register

    b.   You will need your date of purchase and serial number

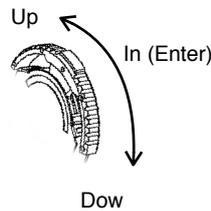   Find your serial number (SN) by scrolling to the advanced menu, then to serial no.

```
>Advanced
Shutdown
```

```
>Serial No.   00000
```

Getting started

On/ Shutdown and the navigation switch

Power ON the chanter, by pressing the switch in.
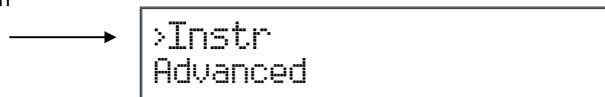
Press

This is called the **navigation switch** and is used for changing settings and selecting a menu.

Up

In (Enter)

The navigation switch has 3 positions. Up, Down & In.
When pressed in, it is referred to as '**Enter**'.

Dow

On the display, the current location of the navigation switch is shown with an arrow **>.**
To select the current position of the navigation switch, press **Enter**.

Navigation switch position

```
>Instr
Advanced
```

Pressing in the navigation switch, **Enter**, is also used for adjusting settings. When a setting is being edited, the screen shows an asterix (*) beside the parameter that is being changed.

```
*Instr          <Ghb>
```
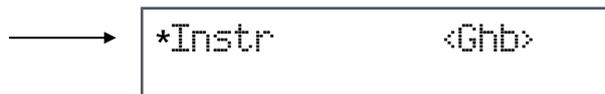
To return to a previous menu, navigate to 'back' and press **Enter**.

Return to previous menu

```
 Low A          -30
>back
```

Shutdown, or power off the Chanter, navigate to the main menu and press **Shutdown.**

```
Metronome
>Shutdown
```
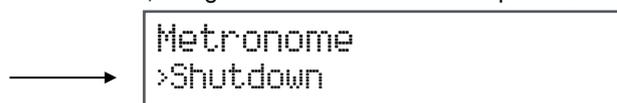
Navigating the menu system
This diagram below depicts all available menu items. All sub-menus stem from the main menu.

	Bass Dr (Vol)	Off- 30
	Tenor Dr (Vol)	Off- 30
	Treble	+/-8
Ghb	Bass	+/-8
	Pitch	440-486Hz
	Vibrato	

Vibr F	Off/ On
Vibr Fnat	Off/ On
Vibr E	Off/ On
Vibr D	Off/ On

	Drone	Off- 30
Sml	Treble	+/-8
	Bass	+/-8
	Pitch	440-486Hz

	Treble	+/-8
Ptc	Bass	+/-8
	Pitch	440-486Hz

0-100

Instr
Volume
Metro
Advanced
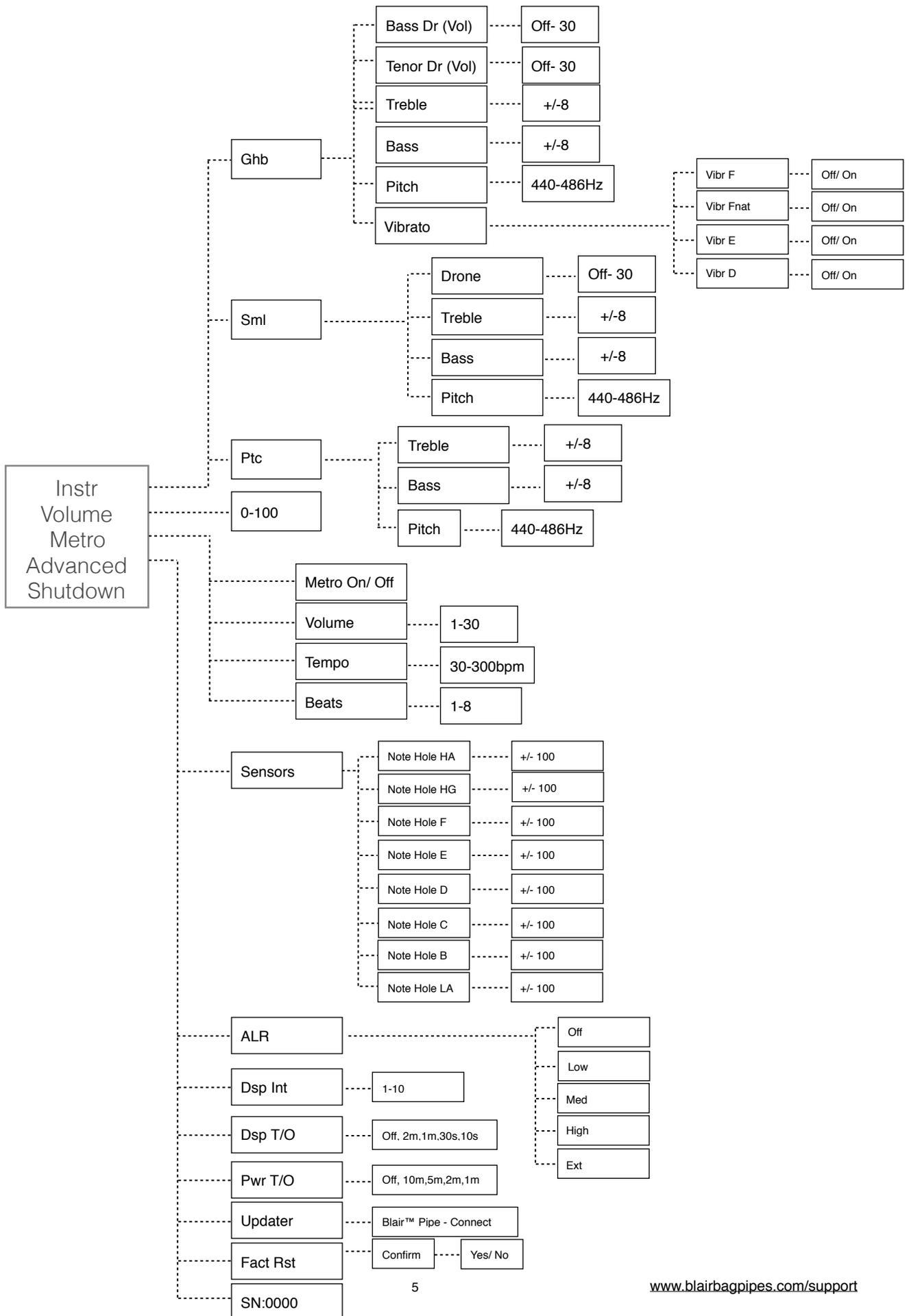Shutdown

Metro On/ Off	
Volume	1-30
Tempo	30-300bpm
Beats	1-8

Note Hole HA	+/- 100
Note Hole HG	+/- 100
Note Hole F	+/- 100
Note Hole E	+/- 100
Note Hole D	+/- 100
Note Hole C	+/- 100
Note Hole B	+/- 100
Note Hole LA	+/- 100

Sensors

ALR	
Dsp Int	1-10
Dsp T/O	Off, 2m,1m,30s,10s
Pwr T/O	Off, 10m,5m,2m,1m
Updater	Blair™ Pipe - Connect
Fact Rst	Confirm — Yes/ No
SN:0000	

Off
Low
Med
High
Ext

Outputs

There are two outputs on the Blair™ Digital Chanter, a micro USB and 3.5mm mono audio jack.
To play the Blair™ Digital Chanter, **Power On** and check the volume level. Always check volume settings before connecting headphones, speakers to avoid potential hearing and equipment damage.

1. USB (micro) port.
2. 3.5mm audio output, volume range 0-100.

USB is used for data transfer and re-charging the internal battery, it does not transmit audio. USB can also be connected to a PC, iPad to transmit MIDI.
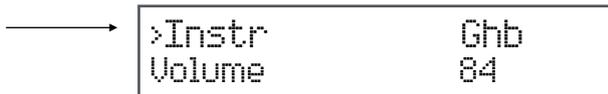
The audio output is mono.

1.USB   2. Audio Output

Selecting an instrument
The chanter has three sound banks which are selectable from the Main menu;

- **Ghb** Great Highland Bagpipe
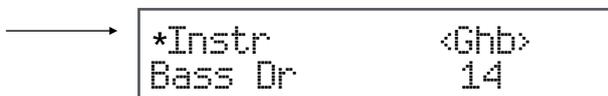- **Sml** Scottish Smallpipes
- **Ptc** Practice Chanter

To select an instrument;
Press the navigation switch and scroll to >Instr.

```
>Instr        Ghb
Volume        84
```

Press **Enter** twice (x2).
An asterix (*) will appear next to >Instr, and the Instrument name will have arrows either side.

```
*Instr        <Ghb>
Bass Dr       14
```

Toggle the navigation switch up or down to change instrument.
Once a new instrument is selected, press the navigation switch, the arrow will move to the right side of the screen to confirm the new instrument has been selected.

```
>Instr        Sml
Volume        84
```
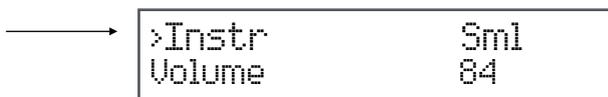
Great Highland Bagpipe
The Great Highland Bagpipe default pitch in the Blair™ Digital Chanter is 480 Hz.
The following parameters can be adjusted of the Highland Bagpipe:
- Bass drone volume (Off-30)
- Tenor drone volume (Off-30)
- Treble (+/-8)
- Bass (+/-8)
- Pitch change (440-486Hz)
- Vibrato >
    - D Vibr Off/ On
    - E Vibr Off/ On
    - Fnat Vibr Off/ On
    - F Vibr Off/ On

Scottish Smallpipe
The Scottish Smallpipe sound bank has a default key of A 440 Hz.
The following parameters can be adjusted for the Scottish Smallpipe:
- Drone volume (Off-30)
- Treble (+/-8)
- Bass (+/-8)
- Pitch change (440-486hz)

Practice Chanter
The unique sound of the Practise Chanter has a default pitch of 450 Hz.
The following parameters can be adjusted:
- Treble (+/-8)
- Bass (+/-8)
- Pitch change (440-486hz)

Metronome

The Blair™ Digital Chanter features a metronome with the ability to mix individual volumes of both the metronome and the instruments audio. This feature allows full control of the metronome volume in the final audio output. The metronome features 2 distinct percussive sounds, with 8 beat patterns to select the accented beat.
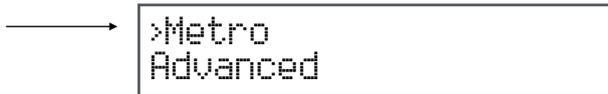
Parameters
Volume 1-30
Tempo range 1-300bpm
Beats 1-8

Turn on the metronome via the main menu scroll to Metro, and press **Enter.**

```
>Metro
Advanced
```

The Metronome menu will appear, to turn on the Metronome press **Enter.**
An asterix (*) appears beside 'Metro', and <Off> which indicates the setting can be changed.

```
*Metro          <Off>
Volume           16
```

Toggle the navigation switch up/ down to turn on the Metronome, then press **Enter** to confirm new setting.
When the Metronome is ON, the metronome icon appears on the screen.

Metronome volume is adjusted under volume in the metronome setting.
Adjust the volume by moving the navigation switch up/ down, then press **Enter** to set.

```
Metro           On
*Volume        < 16>
```

Tempo
 of the metronome is adjusted under Tempo in the metronome setting.
Adjust the Tempo by moving the navigation switch up/ down, then press **Enter** to set

```
Volume          16
*Tempo          <120>
```
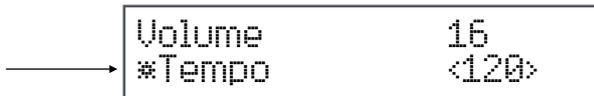
There are 8 beat patterns which place the accent on a different beat.
Adjust the Beat pattern by moving the navigation switch up/ down, then press **Enter** to set.

```
Tempo           120
Beats          < 4>
```

Using MIDI

MIDI is a digital protocol that allows instruments to communicate with each other, and PC's. The Blair™ Digital Chanter is MIDI enabled, and sends data information, not sound, from one device to another. By using MIDI it is possible to play regular Highland Bagpipe fingering and generate the sound of another instrument, such as piano or guitar.

The Blair™ Digital Chanter sends MIDI information via the USB port which can be connected to another device enabled to receive MIDI data, such as a PC, iPad or digital tablet.

The Blair™ Digital Chanter is mapped to the following MIDI notes.

| Chanter	Low G	Low A	B	C nat	C	D	E	F nat	F	HG	HA	Tenor	Bass
MIDI note number	56	58	60	61	62	63	65	66	67	68	70	58	46

About the Sensors

The Blair™ Digital Chanter has the unique ability to be customised in responding to the way your fingers move. The finger sensors react to motion and skin reflections, and by adjusting their value will allow precise tuning of the chanter to the way you play. Once setting the sensors is understood, it's a quick and easy process to adjust.

1.Navigate to the Sensor menu: `> Advanced >Sensors`

```
 Instr
>Advanced
```

```
>Sensors
ALR
```

2. The first item in the Sensors menu is `>Hole HA (`*numbers for example only.)*

```
>Hole HA        +10
Hole HG         -4
```
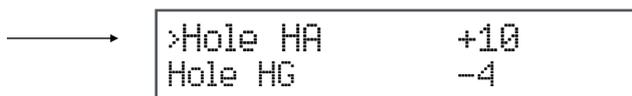
4. We're now in edit mode for fine-tuning individual sensors. To adjust the sensor, press the navigation switch (Enter). An Asterix appears next to the selected hole, and the value has an arrow on each side. For example <10>. This value can be increased or decreased using the navigation switch.

```
*Hole HA        <10>
Hole HG         -4
```

5. Adjust the sensor value until the correct note is heard. Once the correct value has been reached, press the switch (Enter). The new value is stored.

```
>Hole HA        +20
 Hole HG         -4
```

• *numbers are for example only*

6. To return to the main menu, navigate to back and press Enter.

```
 Low A           +6
>back
```

How to adjust an individual Sensor.
The finger sensors react to positioning, height and skin reflections. Adjusting the sensor value will allow precise tuning of the chanter to the way you play. The easiest way to learn how the sensors work is to do the following.

1. Set the value of Sensor Hole HA to '+80'

2. Using only your thumb, place the finger over the High A hole. You will notice that even with the thumb on the hole, HG cannot be sounded. This indicates we need to make the sensor more sensitive, and set a detection point much closer to chanter hole for the sensor to correctly sound the note. This adjustment is usually required for each finger hole, and will depend on how you lift your individual fingers.
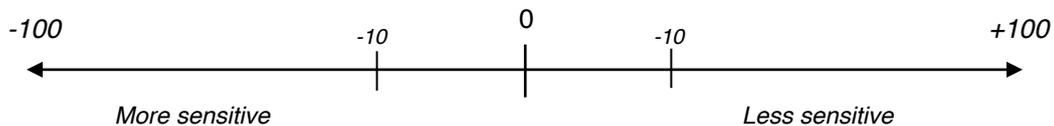
   Here's the process to set each Sensor which is quick, easy, and once set, requires only minimal 'tweaking'.

   1. Start with the High A hole. Navigate to the Sensor menu, select Hole HA.
   Place your thumb on the hole and play a High A grace note. Adjust the Hole HA sensor value until both the High A and High G can be heard. Once satisfied, press switch (Enter) and navigate to Hole HG.

   ** To make a note more sensitive, **decrease** the sensor value. For example if the HG value is +4, decrease towards a negative value such as '-4', or until the HA/ HG notes are sounded.*

   *If High G is not heard with the finger on the hole, **increase** the value away further away, for example '+12'.*
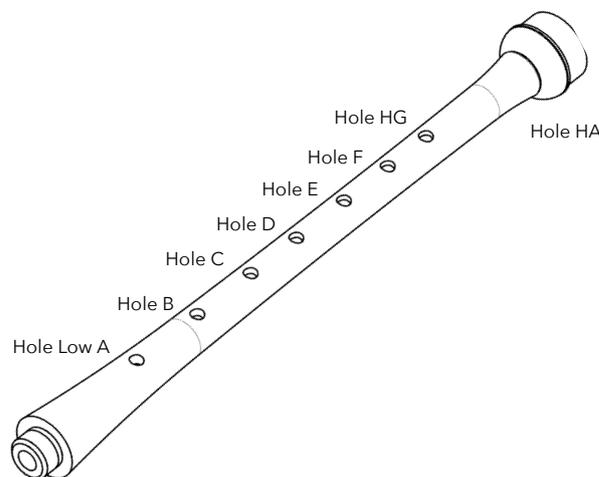
   Tip: Once in the detection range, small steps in value are best

```
-100                         0                        +100
            -10                     -10
  ◄─────────────┼───────────┼───────────┼─────────────►
     More sensitive                    Less sensitive
```

   Decrease value = more sensitive
   Increase value = less sensitive

3. Repeat the process for each note hole.

Sensor hole names.

Advanced settings

In the Advanced settings menu, is you can customise and edit your chanters settings.
To enter the Advanced menu, go > Main menu, then scroll to Advanced and press **Enter.**

```
>Advanced
 Shutdown
```

The following menu items are available in Advanced.

Sensors

Menu for adjusting the individual sensors. Refer to *Setting up the Sensors guide.*

Ambient Light Regulator (ALR)

The ALR controls the amount of high level sunlight and extreme temperature that may affect the Chanter when playing outdoors. If the sunlight is high, finger sensors maybe triggered and notes sounded without actually playing. The regulator has for levels of control; Low, Med, High & Extreme.

```
>ALR           <med>
 Dsp Int
```
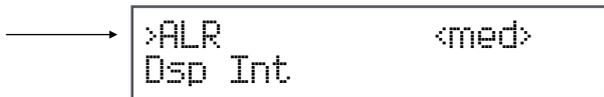
It is advisable to step up the ALR from low to extreme until the ambient light is restricted from interfering with the sensors. For playing indoors, the ALR should be set to OFF

Dsp Int: Display Intensity, control in setting the brightness of the OLED screen.

Dsp T/O: Display time-out specifies the time for when the screen turns OFF, however the Chanter remains on and functioning. This can be used to save battery power, or when performing. '**Enter'** can be pressed to activate the display if it has timed-out.

Pwr T/O sets the time for when the unit is not being played to shutdown. This is commonly referred to as a power-save function. The settings are 2min, 5min, 10min and Off.

Updater Select when installing software updates.

Fact Rst Restores the chanter to the original settings. All previous settings will not be saved.

Serial Number: Your chanter's unique serial number, which should registered to receive software updates, online user manuals and support.

Charging the battery

The battery may provide up to 6 hours playing time, depending on the chanters settings. Display intensity, pitch change all effect the length of battery power. To recharge the chanter, insert the USB cable into a USB socket (100mA preferred), and for maximum charge leave for 3-4 hours. Do not leave the battery fully discharged for a period of time, it may effect the battery life.
The Chanter can also be powered from portable battery packs, as used by smartphones.

Specifications

Sound library:
- Highland Bagpipes
- Scottish Smallpipes
- Practice Chanter
- EQ: Bass & Treble
- 8 Finger sensors
- Pitch range: 440 - 486 Hz
- Metronome x 8 beat patterns
- MIDI connectivity: USB-MIDI
- Input: 1x USB, used for both MIDI and recharging
- USB output: 1x USB
- Audio output: 1x 3.5mm mono (male)
- Power: Rechargeable lithium-ion battery charged via USB port.

Dimensions: 54.3cm x 4.5cm, 204 grams

The Blair™ Digital Chanter complies to FCC and CE Class B regulations.