

AUSTRALIAN PIPE BAND COLLEGE

RESOURCE PACK FOR ELEMENTARY CERTIFICATE

(2004 DRUMMING SYLLABUS)



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VERSION 1.1/2006

ACKNOWLEDGEMENT

- Drum Major Allan Chatto for scores taken from the Australian Pipe Band College Drumming Instruction Manual, 1989, (no longer in print), and the Tutor for Pipe Band Tenor and Bass Drum, Ourense City Council Piping School, Spain, 2001.

Scores: Snare: number 1, 3 and 6
 Bass/Tenor: number 1 and 2

- Drum Major Gordon Brown for scores taken from Something Old Something New, published by *TG Drumming*, 2001.

Scores: Snare: number 5

- Blair “Buzz” Brown, Scores for the Grade 4 Drummer, 2003, (publisher not identified).

Scores: Snare number 2, 4, 7 and 8

- Greg Bassani, APBA Drumming Principal

Scores: Bass/Tenor number 3, 4 and 5.

ELEMENTARY SNARE DRUM PLAYING

THIRTEEN STROKE ROLL DEVELOPMENT (also introduced as an optional rudiment in Preliminary)

OPEN MOVEMENTS

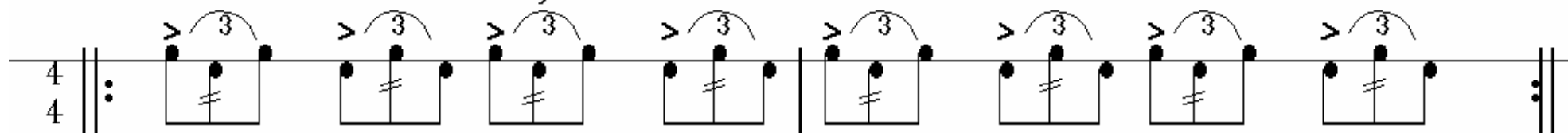
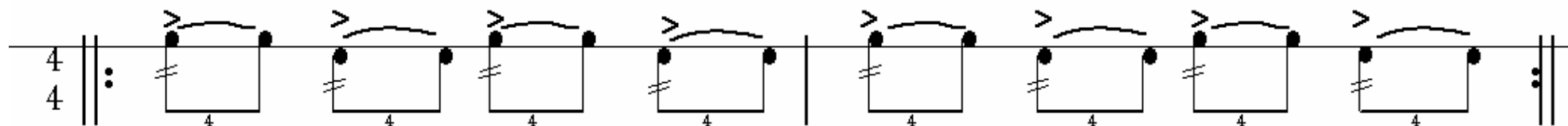
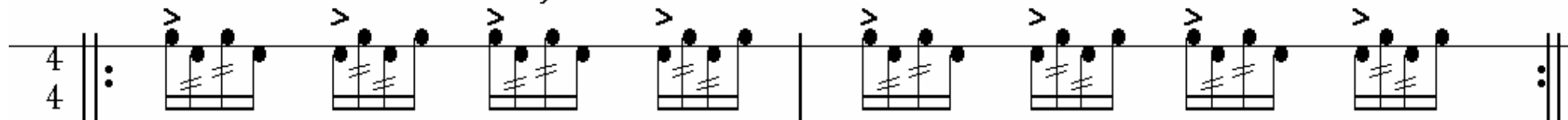
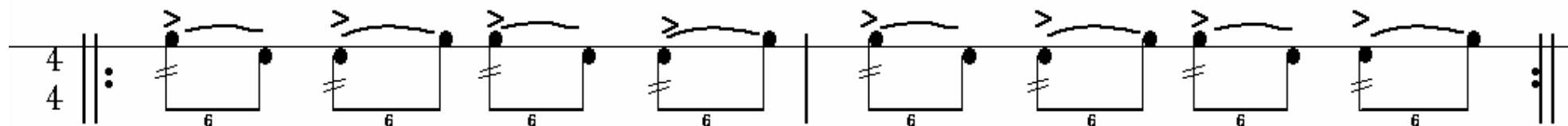
CLOSED MOVEMENTS

25 STROKE INTRODUCTORY ROLL (also introduced as an optional rudiment in Preliminary)

The two three pace rolls or introduction.

25 STROKE: 12 BUZZ movements + BEAT

12 BUZZ movements + BEAT

ACCENTED ROLLS**4 Stroke Accented Roll: Primary Beats****4 Stroke Accented Roll: Written as...****6 Stroke Accented Roll: Primary Beats****6 Stroke Accented Roll: Written as...****8 Stroke Accented Roll: Primary Beats****8 Stroke Accented Roll: Written as...**

SNARE DRUM TUNING: A Basic Approach

Today's snare drums are capable of producing many different sounds that are acceptable within a pipe band performance. Not only will the sound produced be different from one make of drum to another (for example, Premier compared to Pearl), but drums that come from the same manufacturer may also produce different (and acceptable) sounds.

The most common reasons why sounds will vary from drum-to-drum are:

- Different head tension between drums.
- Different snare tension between drums.
- Different pressure of snares onto the drum heads (top and/or bottom).
- Different types of drum heads on the drums.
- Different types of snares on the drums.

A simple approach to achieve an acceptable sound is as follows:

- Bring the top snare away from the top head if possible.
 - Add tension to the top head to raise its pitch by using an “even” method of tensioning. This may be done by working around the head, applying no more than a $\frac{1}{4}$ turn on each tension bolt (you can apply more if the head is at a very low tension).
 - Continue tensioning the head until a tap on the drum produces a very bright, sharp sound. If you were to push hard with your hand onto the centre of the drum head then you should not see any deflection of the drum head. It may be useful to have a drum available that was previously set up by another person to act as a guide so that you avoid costly over-tensioning.
 - Carefully raise the top snare onto the head, tapping the drum with your fingers at the point where the end of the snare will touch the head. Continue raising the snare until the snare rattle disappears, and then back it off a small amount ($\frac{1}{8}$ turn).
 - Adjust the tension of the top snare to produce a short, bright sound. The wires must be allowed to vibrate freely when the drum is tapped. If the snare vibrates too much then your playing may lack clarity. If the snare wires do not vibrate enough, the sound will be dull and lifeless.
-
- Add tension to the bottom head to raise its pitch by using an “even” method of tensioning. This may be done in the same way as the top head. The bottom head is not as robust as the top head and so you will need to be careful as you approach the high tension area.

- Continue tensioning until a tap on the drum produces a very short, sharp sound, BUT do not aim for anything as bright as with the top head. If you were to push 'moderately' with your thumb onto the centre of the drum head then you should see a small deflection of the drum head. Again, it may be useful to have a drum available that was previously set up by another person to act as a guide so that you avoid costly over-tensioning.
- Adjust the height of the bottom snare so that its supporting brackets and ends of the wires are perfectly level with (or slightly above) the bottom head. All snare wires should now be comfortably touching the head along their entire length, providing that there is some tension on the snare itself.
- Adjust the tension of the snare so that it vibrates in a controlled manner when the drum head is tapped lightly with your fingers.
- Check the whole drum sound by placing it on its side on a table (or similar) and tapping the top head with a stick, listening for bottom snare vibration and the general sound of the drum. When in the playing position, the drum should also sound bright and provide a good amount of stick rebound.

SAMPLE SIMPLE TIME AND COMPOUND TIME MARCHES
SNARE DRUM

1 "Scotland The Brave" ~ March

(A)

(B)

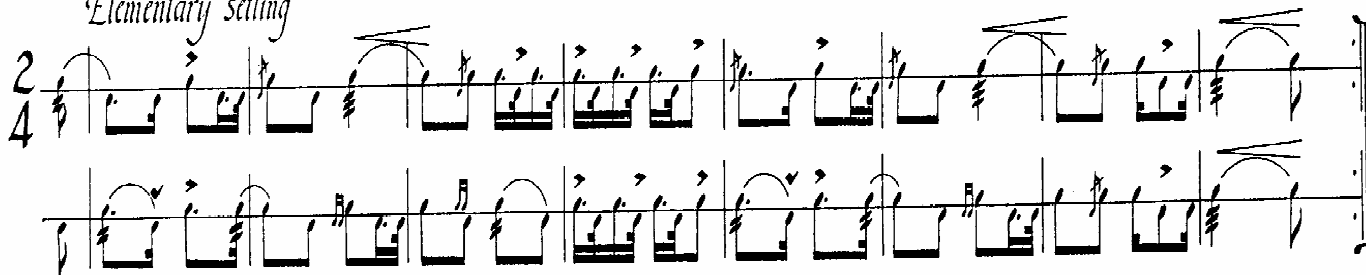
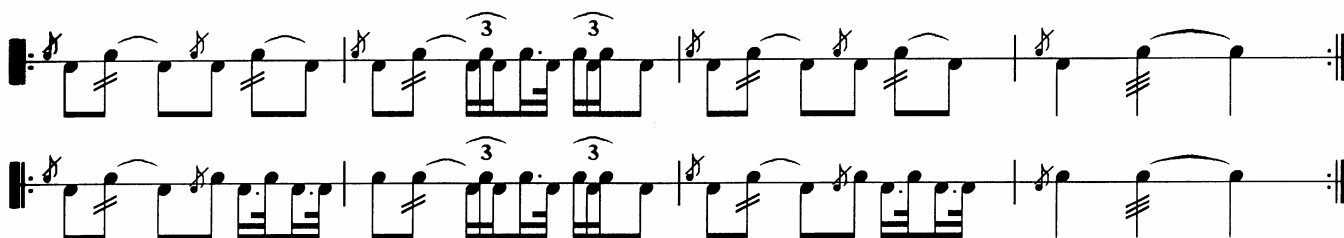
(C)

2

Haughs of Cromdale

March 2/4

Buzz

3SNARE DRUM.*"The Barren Rocks of Aden"**Elementary setting***4****3/4 March**



"The Haughs of Cromdale"

*2/4 March
Elementary Level*

*Gordon & Tom Brown
(c) T.G. Drumming 2001*

*"Blue Bonnets O'er the Border" ~ March*

①

②

③

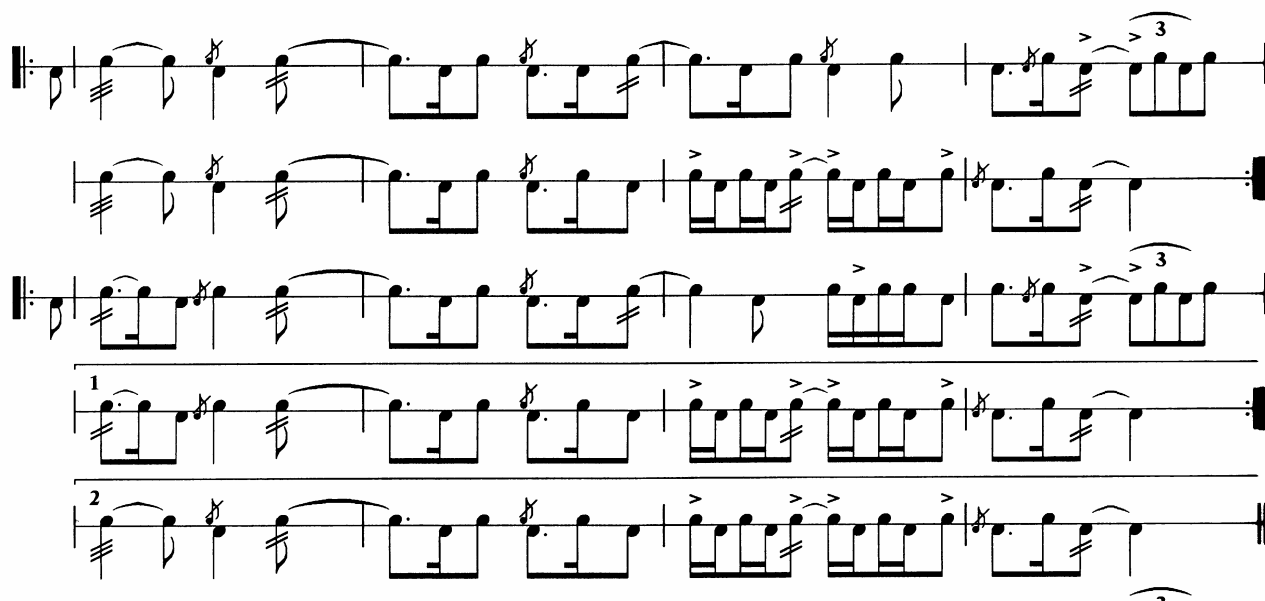
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7

March 6/8

Mrs. Lily Christie

Buzz

**8**

6/8

March for Massed Band



ELEMENTARY BASS and TENOR DRUM PLAYING

1

SAMPLE SIMPLE TIME AND COMPOUND TIME MARCHES BASS/TENOR DRUM

Tenor drum score

2

THE HIGHLAND LADDIE - MARCH

drum SCORE arr. by -



Allan Chatto

TENOR DRUM.

BASS DRUM.

3

①

B $\frac{2}{4}$

T $\frac{2}{4}$

2ND PART REPEAT

2ND PART REPEAT

3

7

②

B

T

1ST TIME ONLY

1ST TIME ONLY

7

4

①

$\frac{6}{8}$ B

$\frac{6}{8}$ T

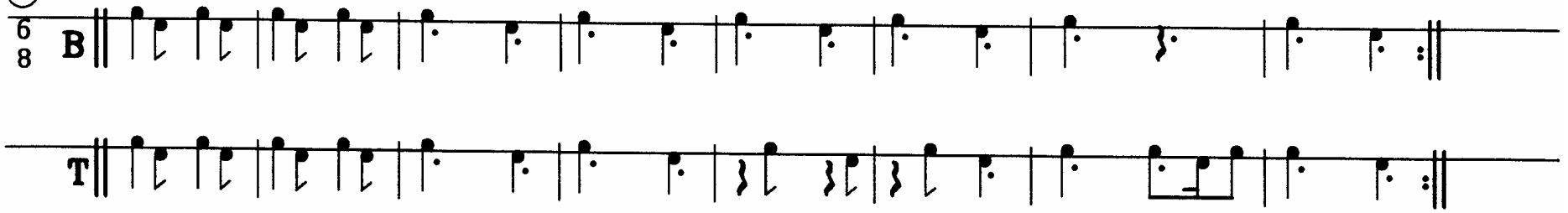
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$\frac{6}{8}$ B

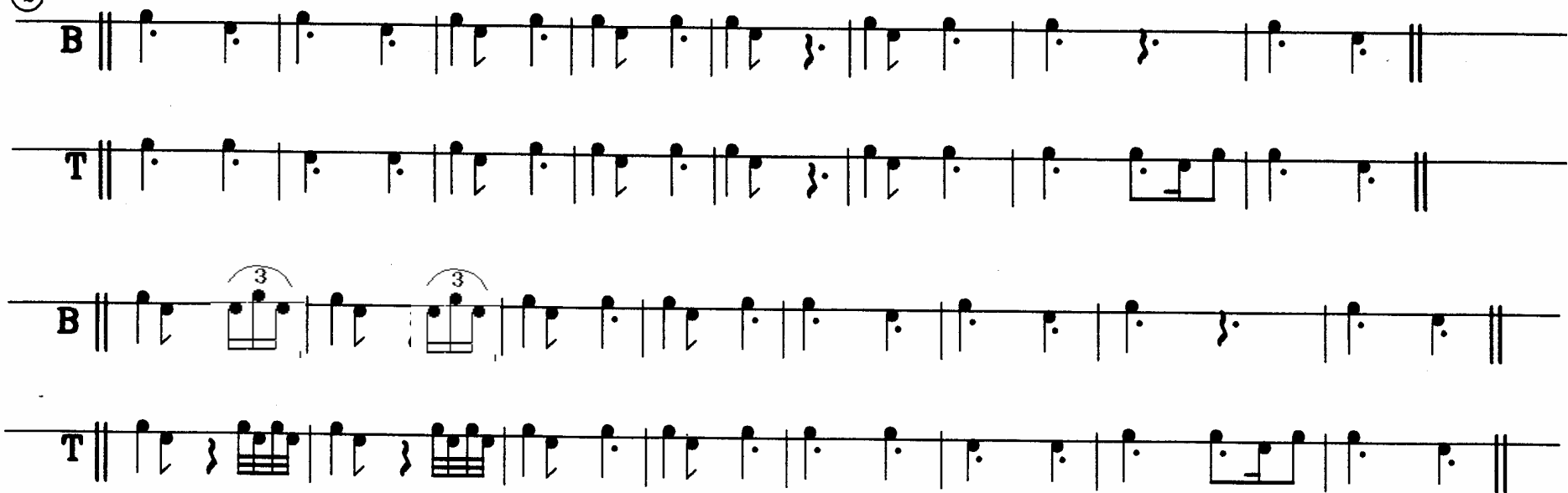
$\frac{6}{8}$ T

5**BASIC 6/8 MARCH**

①



②



THE TENOR AND BASS DRUMS

PARTS & FUNCTION

Refer to page 1.25.4 of The Royal Scottish Pipe Band Association, "Structured Learning, Book 1, The Elementary Certificate". The parts of the snare drum that are in common with the bass and tenor drums are:-

- Ring or counter hoop, Top and Bottom
- Tension Bolts, top and bottom
- Heads at top and bottom for tenor, or left and right heads for bass
- Shell
- Optional damping (or dampening) device top and/or bottom.

MAINTENANCE

See page 1.25.2 of The Royal Scottish Pipe Band Association, "Structured Learning, Book 1, The Elementary Certificate"

BASS SECTION TUNING FOR A PIPE BAND PERFORMANCE

INTRODUCTION

The following is an extract from a comprehensive set of notes on the topic of Bass section tuning by Greg Bassani.

WHY ARE BASS-SECTION DRUMS SO DIFFERENT?

This is a fair question. There doesn't seem to be any significant controversy in the piping area as to what constitutes a TUNED sound or an UNTUNED sound. So, why is there a problem with bass-section drums?

In brief, the reason is that the piping note is **continuous** and it is much easier to decide if continuous sounds are tuned or untuned. In contrast, bass-section instruments produce notes that are of **very short duration**, thereby making it difficult for our ears to accurately assess the note's pitch.

HOW ARE INSTRUMENTS TUNED?

Before we can really tackle this issue, it is important to look at how we classify musical sounds.

Musical sounds are assigned a **letter of the alphabet** to classify them. These are: **A, B, C, D, E, F, G**. The notes rise in **frequency** (number of vibrations per second) as you progress from **A** to **G**. After one pass through the "**scale**" of **A** to **G**, the sequence repeats, BUT every note in the next sequence is at a **higher frequency** than in the 1st sequence (this is the same as the **white keys** on a piano keyboard).

There is a special relationship that occurs between any note on one scale and the same letter note on the next scale. This is known as an **OCTAVE**. Therefore, an OCTAVE would be between notes **A** and **A**, **B** and **B**, **C** and **C**, and so on.

The word "octave" relates to the number 8, and comes about because of the following numbering:

Note:	A	B	C	D	E	F	G	A
Number:	1	2	3	4	5	6	7	8

Therefore, **A** to **A** is a count of **8**, or an **OCTAVE**. Likewise with other octaves, such as **B** to **B**.

You may also find it interesting that in the above diagram, the note **E** would be said to be a **fifth** above **A**, the note **C** would be a **third** above **A**.

Apart from this, what's so special about an octave? Two notes that are an octave apart **blend perfectly**. The sound- waves reinforce each other to produce a steady, harmonious sound. The pipers already know this, as **figure 3** shows.

The art of "**TUNING**" the bagpipes involves setting all of these **A's** at exactly the correct musical interval so that perfect harmony is produced.

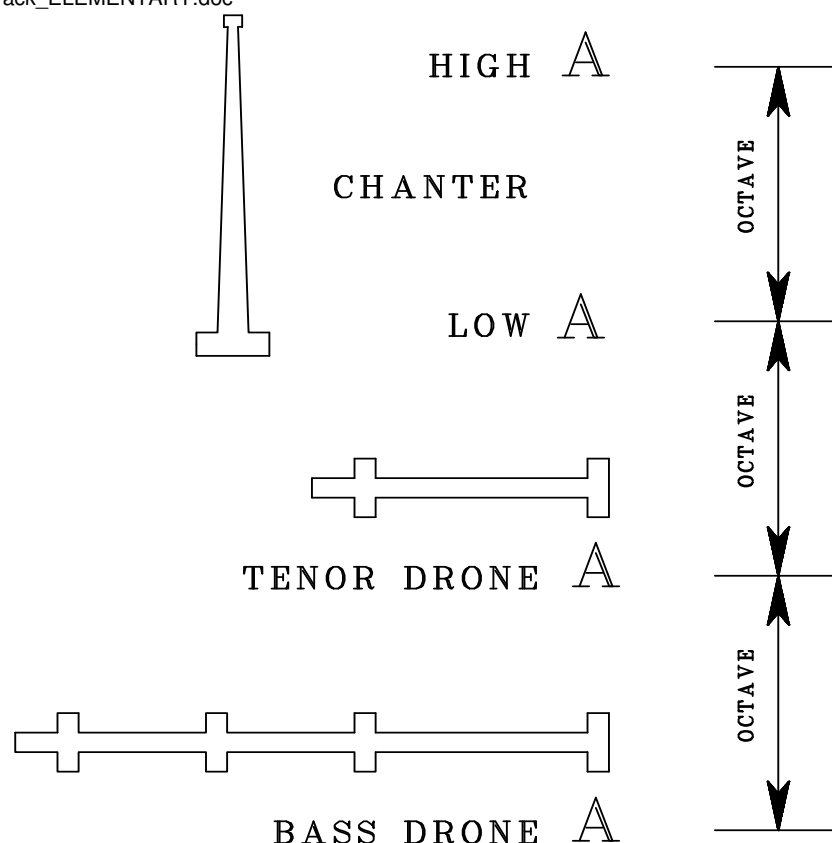


Figure 1: OCTAVE RELATIONSHIPS IN BAGPIPES.

CAN BASS-SECTION INSTRUMENTS REALLY BE "TUNED"?

Formal literature on these instruments classes them as instruments of **indefinite pitch**. This is done because they are not capable of producing quick, accurate changes in pitch. In addition, they cannot produce a scale of notes.

The term "indefinite pitch" is a misnomer and prone to being misunderstood. For example, some people have claim that the instrument cannot produce an identifiable note because it is an instrument of *indefinite pitch*!

Laboratory experiment results indicated that the bass, tenor and alto drums **can produce a single, clearly-identifiable note**. Most readers will likely acknowledge this point from their own practical experiences.

In fact, the only instrument in a pipe band that does not produce a musical note, is the snare drum. The sound produced by the snare drum more-closely relates to the definition of "noise"

Some of the more important factors that affect the tone of bass-section drums are:

- * type of drum heads used.
- * type and size of the head on the drum stick.
- * striking position on the drum head.

We should aim to minimise the overtones produced and let the 'fundamental' dominate the sound. This is accomplished by using a larger-headed stick rather than a smaller, and by striking in the centre of the drumhead.

SUMMARY OF TERMS

MUSICAL SOUNDS:	Sounds which have a " continuous " sound-wave
OCTAVE:	A special relationship that occurs between any note on one scale and the <u>same letter</u> note on the next scale.
TONE:	The quality of a musical sound.
FUNDAMENTAL:	The <u>lowest</u> number of vibrations-per-second in the sound.
OVERTONES:	Other vibrations that occur at the same time as the fundamental and cause the <u>character</u> (tone) of the sound to change.
FREQUENCY:	A measure of the number of <u>vibrations-per-second</u> of the sound being produced.
PITCH:	the height or depth of a sound perceived by the human ear; influenced by other factors besides frequency

The next thing is to know exactly where to pitch the bass, tenor and alto drums for best effect. When you think about it, these drums can produce a clearly-identifiable musical note. Therefore, **it would seem to be sensible to have them pitched to the pipes. The note "A" occurs 4 times with the bagpipes:- bass-drone, tenor-drone, low-A, and high-A.** In addition, they occur in spacings of one octave, which means they will blend perfectly if properly tuned i.e. perfect harmony.

The alto drum would not be pitched at the tenor drone frequency. This is partly because you would likely damage the drum in trying, and if you didn't, the sound would be unpleasantly high in any case. It involves a tension that most alto (tenor) drums are not designed to withstand.

IS THERE A RELIABLE ELECTRONIC TUNER WHICH WILL ENABLE ACCURATE BASS-SECTION TUNING?

An electronic tuner produced by the KORG company (model DT-2) has been very popular and also accurate. There are many suitable tuners on the market now but not all electronic tuners will be suitable as they must have a **quick response-time** in order to measure the short-duration note.

For reliable tuning of the bass section, it is most important not to trust your ears in the early states, as the ears can be misleading with short-duration sounds. A variety of factors, such as volume and duration of the sound influence your perceived pitch of the note produced by such instruments. The pipes are much simpler to tune by ear, in comparison.

ONCE TUNED, HOW LONG WILL THE DRUMS STAY THAT WAY?

This is mainly a **temperature-dependent factor**. Many people tune their bass-section prior to every performance, including at band practices. This takes less than a few minutes in total, and often involves varying the head tension by up to ¼ of a turn on each bolt.

On the day of a contest, the bass-section tuning may be checked several times leading up to the performance. It is necessary to liaise with the Pipe Major in order to determine the current pitch of the pipes and the direction in which it may be moving if you are wanting a high degree of accuracy.

SHOULD BOTH BASS-DRUM HEADS BE OF EQUAL TENSION?

Believe it or not, it doesn't matter which head is struck, only ONE note is produced, even if the heads are of different tension. There will be **overtone differences** between the two heads that may cause you to believe that different notes are being produced, but the **fundamental note**, or main note, of the drum **will be the same**.

If you stand ten metres away from the drum, you won't detect any tension difference in the heads because the overtones do not have much carrying power. However, it is strongly recommended that the heads be **equally tensioned** so that a consistency of overtones is obtained from both heads.

SHOULD BOTH HEADS ON THE TENOR AND ON THE ALTO DRUM BE OF EQUAL TENSION?

Like the bass drum, it does not matter which head is struck on the tenor or alto drum, only one note was produced (of course, it is only practical to strike the top one!). There was a difference in overtones from each head, but the fundamental note was the same.

The frequency (or note produced) of the tenor or alto drum is determined by the tension of both heads. The relative tension of the two heads will affect the tonal qualities of the drum but not its ability to be tuned. You should experiment with different relative settings until you get the tone and note duration that you like.

IS THE SIZE OF DRUM STICK IMPORTANT IN DETERMINING THE TONE OF THE OVERALL SOUND?

A larger-headed stick, up to a certain point, will result in a purer sound and a tone that will be more pleasing to listen to.

IS THE STRIKING POSITION ON THE DRUM IMPORTANT IN DETERMINING THE OVERALL SOUND?

The best way to emphasise your fundamental note of the drum is to play it in the centre.

GUIDELINES FOR THE USE OF THE KORG DIGITAL TUNER, DT-2, FOR TUNING PIPE BAND BASS SECTIONS

INTRODUCTION

The Korg DT-2 tuner has been tested under laboratory conditions and found to be highly reliable in determining the tuning of percussion used in Pipe Bands.

Having such a tuner is one thing, but knowing how to use it correctly is what will really make the difference to the band's sound. As the adage goes, "**practice makes perfect**" - even when using an electronic tuner to tune a bass-section! These note can also be applied to the use of other electronic tuners, though there will be differences in their operation and display.

PRELIMINARIES and GENERAL NOTES OF IMPORTANCE

For the best results, a number of precautions should be taken:

- * **the tuning location should be relatively quiet** otherwise the tuner may also measure unintended sounds. This could result in erratic readings. I have successfully carried out a significant amount of tuning in pipe band contest tuning parks, however, the quieter the location, the more reliable will be the results.
- * **Don't talk while actually taking a reading** with the tuner as it may confuse your voice with the sound of the drum.
- * **The drums are best tuned while being worn by the player.**
This is so because bodily contact between the player and the drum shell does alter the tuning ever so slightly. It is not absolutely essential to wear the drums as the results will still be very close.
- * **Strike the drums in the centre to produce the best note.**
- * During tuning, the drum should NOT be struck too rapidly. The tuner must be allowed to process the sound of ONE strike, display its reading, and then return to rest before striking again. The sequence of events is: STRIKE, READ SCALE, when reading ceases, STRIKE again and re-read.
- **Use a number of strikes in SLOW succession** (see previous) in order to determine and verify the correct reading on the scale, BUT, expect some slight variation from reading-to-reading. Typically, I use about 5 strikes.
- Having tuned percussion is of little practical support to a harmonious band sound if your pipers cannot establish and maintain well-tuned bagpipes. While the bass-section will still sound very nice once tuned, integration can only be achieved if the pipers do their part also.
- Be aware that the tuning changes with temperature, especially with the bass drum because of the large area of plastic, and so **frequent fine-tuning will be necessary** e.g. several times on a contest day. Checking and altering should only take a few minutes. Also, consider that the tuning pitch of the bagpipes may change from performance-to-performance, depending mainly on the tuning skill of the pipe major.
- **Tune in the environment in which you are going to play** i.e. If you're going to play in the sunshine then tune in the sunshine; if you're going to play in the shade then tune in the shade (*similarly with air-conditioned rooms*). Remember, this is TUNED percussion.

PROCEDURE

GENERAL

- * Turn the tuner on ("**TUNER**" position). Leave the calibration ("**CALIB**") control alone, as it is not necessary to alter it.
- * Obtain the services of a piper whose pipes are set correctly according to your band's tuning. Assuming the pipes to be tuned harmoniously, place the tuner next to the top of the **bass drone (or tenor drone)**, and with the piper playing a steady note, observe the reading of the TWO red dots on the tuner. One dot will be on the curved scale while the other will show the note on the straight line (chromatic) scale.

Experience indicates that the dot on the curved scale will be in the vicinity of **+10 to +20**, while that on the straight scale will be on the dot between A and B, i.e. "A sharp".

THIS READING IS **YOUR MASTER TUNING REFERENCE** AS
IT REPRESENTS THE TUNING OF THE CORRECTLY SET
PIPES IN YOUR BAND

[Note: ignore the green dot as only indicates that the power is turned on, as well as showing the position of the scale centre].

If you are using a different brand tuner, the objective is to identify the reading on its scale and reproduce this when the drum's tuning is measured.

- * **For bass and tenor drums, the aim is to reproduce this reading on each drum**, indicating harmony with the master tuning reference.

BASS DRUM

- * The heads should be the same tension. While trying to maintain near-equality of head tension, increase or decrease the tension on the heads until the reading on the DT-2 **is the same as that of the master tuning reference**.
It is interesting that tests show the bass drum frequency to be one full octave below the bass drone of the bagpipes, rather than being the same, as most people seem to think. Irrespective, it is still correct to refer to 'tonal harmony' with the bass drone.
- * **The drum will now be harmonious** but the quality of the sound (i.e. its TONE) will be affected by dampers, sticks, striking action, etc., and could need attention.
- * It is a fallacy to think that the heads will produce different notes if they differ in tension. As the tuner will show, it doesn't matter which head you strike, the note will be the same, only the tonal quality may differ.

TENOR DRUM

- * The tenor drum also has its heads tensioned until the tuner reproduces the reading of the master tuning reference. Many different combinations of top and bottom head tensions will result in the desired frequency of sound (and therefore harmony) but will give different tonal effects.

Tests show the tenor drum tuning **at** the bass drone frequency, which is one full octave above the bass drum.

- * It doesn't matter whether you strike the top or bottom head of the drum for tuning as the note **frequency** will be the same. However, as previously mentioned, **the tone will differ**, but the tuner does not measure the tonal quality of the note.

AT THIS POINT, STRIKE THE BASS AND TENOR DRUMS ALTERNATELY AND LISTEN TO THE OCTAVE INTERVAL. THEN STRIKE THEM AT THE SAME TIME AND HEAR THE HARMONIOUS COMBINATION ("CHORD").

ALTO DRUMS

- * The alto drum will be tuned higher than the tenor drum **but can't use the previous master tuning reference**. This is because the drum will sound very peculiar if placed one octave above the tenor drum i.e. **the interval is too large**. **Instead, the drum should be tuned to harmonise with one of the notes on the bagpipe scale.**
- * Find your master piper again and **observe the tuner reading while the selected chanter note is being played, try E**. It's up to you to select the note which gives the most pleasant combination with the bass and tenor. **Keep the tuner near to the chanter at this time and notice its reading. This is the NEW MASTER TUNING REFERENCE (for alto only).**
- * **Tension the alto drum until the new master tuning reference is obtained.**
- * **Play the drum in sequence with the bass and tenor and listen to the interval.** If it's not suitable then change to another note on the pipe scale.

PLAY ALL DRUMS TOGETHER AND LISTEN FOR THE *CHORD*, IT SHOULD BE A PLEASANT SOUND.

And, that's really all there is to it. A bit of thought and practice and you should be able to accurately pitch a full bass section within 5 minutes.

By the way, **the tuner can not be use to tune snare drums** due to the complex nature of the sound produced.