# The Burmese Band Director's Guide to the Trumpet

Michael Shirk

MUEN 5112 PA #1
American Band College
Sam Houston State University

# Table of Contents

# Foreword

## How It All Started

In August of 2005, my friend, Allan Villiers, told me he planned to retire after over three decades of directing bands in the state of Washington. He had decided to teach abroad. After putting his resume online, he had been contacted by an international school in Myanmar. I remember asking, "Where is Myanmar, and what would you do there?" It sounded exotic and challenging and I wanted no part of it. Having graduated from Central Washington University in December of 2003, I was looking to land my first permanent teaching position in small town Washington. In the middle of a sleepless night, however, I began pondering the possibility. I thought, *I'm young, single, and if I ever wanted to do something like that, this might be my last chance.* So, the next day I called him and told him if he decided not to take the job in Myanmar to give them my name. Exactly three weeks later I was stepping off the plane in Yangon.

In the six years since, I've had the great fortune of building a successful band program at the International School of Myanmar. More importantly, I've made lasting friendships with many musicians in the community. My program was the first of its kind in the nation, as wind instruments – especially western ones – are not commonly taught. In the beginning, my band was seen as something of a novelty in the community, but recently there has been interest in starting bands outside the international schools.

## About Myanmar

A little background about the country: Myanmar, also known as Burma, is situated between India and Thailand, just to the southwest of China. Under British colonialism and with the introduction of missionary schools, the educational institutions flourished. After independence in 1948, a weak democratic government finally gave way to an oppressive military junta. In 1962 all schools were nationalized and education became tightly controlled for propaganda purposes. Music is not taught in any public schools. Only the tiny percentage of students wealthy enough to attend modern international schools are afforded this opportunity. Music does exist, particularly in the Christian communities, but there are few trained professional musicians. There are a few youth string orchestras, but wind instruments are rare.

## Planting the Band Seed

Since the introduction of my band program, a few individuals have contacted me, asking advice on starting wind bands in their churches or communities. I suggest the following things are needed in this order:

1. A trained teacher
2. Access to a professional repair service
3. Instruments
4. Interested students
5. Band literature

Unfortunately, some have tried to start bands without meeting these requirements in order. Often their first step is to purchase instruments, assuming they'll find a musician – be it a singer, guitarist, keyboardist, or *anyone* looking for something to do – to lead a group of students. Little thought is given to the collection of instruments purchased, and the need for repair never enters the mind! Thus, there is no knowledge of the proper technique or even how the instruments work. As an example, I once visited a newly founded program with brand new instruments and enthusiastic students. On examining the instruments, I discovered a saxophone with so many keys out of adjustment that it could play nothing other than open C# – and with a terrible tone at that! On questioning, I learned that the teacher had no idea the instrument was defective in any way and had made the reed by cutting a piece of wild bamboo found in the jungle.

## Target Audience

This project, focused on the trumpet and prompted by a requirement of the American Band College of Sam Houston State University, is intended to be part of a larger guide aimed at addressing the training needs of Burmese music teachers working with wind ensembles in Myanmar. It is assumed that anyone reading this book has a basic level of proficiency in music, whether as a singer or instrumentalist. The reader should be able to read music and have a basic understanding of music theory. While much of the advice given here is applicable to anyone teaching band, special consideration is given to the unique circumstances of teaching music in Myanmar. These circumstances include a lack of exposure among much of the population to wind instruments and wind ensembles, the ubiquity of low quality instruments, and a lack of qualified repairmen, making proper daily maintenance and do-it-yourself repair a high priority.

## Help Make a Difference!

Thank you for taking the time to look this over. If you have questions about anything presented or notice anything lacking or erroneous, please do not hesitate to contact me. To my knowledge, this will be the first work of its kind in the nation of Myanmar and a primary resource for Burmese music educators. Any input is greatly appreciated in making this a first-rate publication. Feel free to contact me with suggestions at mrmikeyangon@gmail.com.

# What Is a Trumpet?

## A Member of the Brass Family

The trumpet is a member of the brass family of wind instruments. The name "brass" is confusing because not all brass instruments are made of brass metal and metal instruments like the modern flute and saxophone are not part of the brass family. Brass instruments are played by blowing through the lips to cause them to vibrate inside a cup-shaped mouthpiece. Some other modern brass instruments are the trombone, French horn, and tuba. Other brass instruments can be found around the world, made of everything from sea shells and elephant tusks to plastic, bamboo, and even tree bark.

## How Trumpets Are Used

Trumpets have served in many important roles. In some cultures, they are a sign of power and status, announcing the arrival of a king or queen. Hunters and fishermen have used them to call for help. Because their sound carries so well, they have been used to send signals across long distances. Some religions have used them to call up or drive out spirits. In the West, trumpets are often used in the military, accompanying marching soldiers and sounding alarms. As expressive musical instruments, they have become an important part of the wind ensemble.

## Development of the Modern Trumpet

The modern trumpet developed over the course of thousands of years. Ancient Egyptian trumpets from about 4,500 years ago were short, straight tubes and were used to accompany soldiers and dancers. Around the year 1400 AD, instrument makers learned to bend the metal tubing of the trumpet into an S-shape and later into the loop that you see today. During the 16th century, this looped "natural trumpet" was standard.

Trumpets up to this time had no valves, so the musician could only play notes out of one overtone series. (You will learn more about the overtone series later in the book.) During the 18th and early 19th centuries, curved pipes of various lengths could be added to create more overtone series, but these could not be changed quickly. (Those pipes are called "crooks".) Players also experimented with putting their hands in the bell to lower the overtone series. Instrument manufacturers had some success adding a slide like a trombone and these "slide trumpets" are still sometimes used today.

Finally, in 1814 the first valve system was introduced. An improvement called the Périnet Piston Valve was invented in 1838 and this is the system found on most modern trumpets. Rotary valves like those seen on French horns are less common. Modern trumpets are usually made from brass or some other kind of metal, folded into a tube that opens into a bell shape, with a separate mouthpiece and three (or sometimes four) valves.

## What Is a Cornet?

You may see music written for cornet instead of trumpet or a student may have a cornet and want to join your band. The differences between the trumpet and the cornet are very small. Cornets vary in shape, but the tubing of the cornet is often wrapped in a somewhat different shape from the trumpet and the mouthpiece may appear slightly different. Cornets typically play in the same key and range as trumpets and sound similar, though some describe the tone of the cornet as mellower than the trumpet. You can use them as if they are the same instrument in your band, using cornets as if they are trumpets and cornet parts as if they are trumpet parts.

## What Is a Bugle?

Bugles are similar to the natural trumpets discussed previously. They usually have no valves and only play the notes of a single overtone series. Unlike the cornet, you would not be able to use a bugle on trumpet parts in your band. Bugles are usually played as a means of military signaling or in bugle bands as a simple accompaniment for marching.

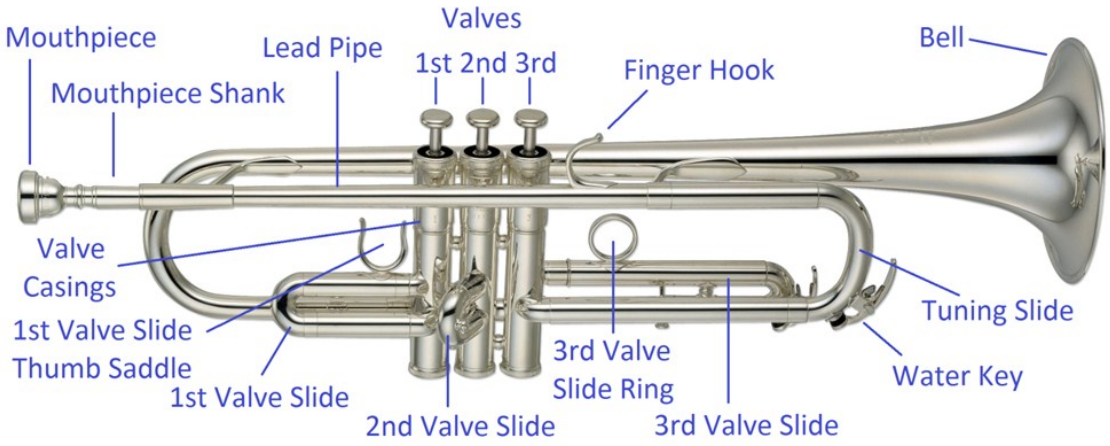
## Silver or Yellow?

Many of the trumpets sold in Myanmar are silver, but you may also see some that are yellow, gold, black, or other colors. These are only the colors of the plating, paint, or lacquer and do not affect the sound of the trumpet.

# Setting Up for Success

## The First Day Is Important

In the first few lessons, students will pick up the habits and attitudes that will shape how they approach their instrument for years. It is easier to teach them good habits from the beginning than to force them to unlearn bad habits later.




## Assembly

Guide your students through the assembly process. Lay the case flat on the floor with the lid on top. Open the case and remove the trumpet.

1. Check for any damage.

2. Make sure the water key corks are in place and undamaged.

3. Check that the valves are oiled, inserted in the right order, and rotated correctly by blowing air into the lead pipe and pressing the valves. If the air way is blocked, the valves have probably been put in incorrectly.

4. Check that the 1st, 2nd, and 3rd valve slides are not stuck by moving each slide while holding down its valve.

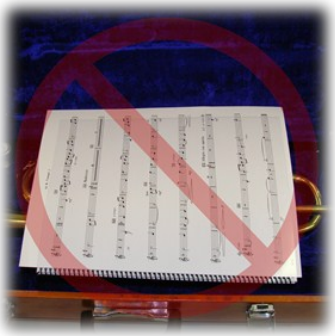
5. Look for damage to the mouthpiece, being sure the end of the shank is round.

6. Insert the mouthpiece shank into the end of the lead pipe with a gentle twist. NEVER tap on the mouthpiece. It may become stuck and need a special tool to remove it.

## Disassembly

Be sure all the pieces are there before closing the case. If a water key pad has fallen out while practicing, it is probably somewhere close to the student's chair. Finding it a day or a week later may be impossible. For more advice on caring for the trumpet, see page 18.

Put the mouthpiece in the slot designed for it. A loose mouthpiece can dent the trumpet as it rolls around in the case.



Do not put sheet music or books in the case with the trumpet. Laying music on top of the trumpet can put pressure on the 2nd valve slide, leading to a deformed 2nd valve casing.

Close all the latches. More than one trumpet has made a trip to the repair shop after falling on the floor because its case opened when the student picked it up.

# Posture

## Correct Posture

Teach your students proper playing posture and remind them every day.

- Sit on the front edge of the chair, not touching the back of the chair.
- The spine is straight, like standing from the waist up.
- Shoulders are back and relaxed.
- Feet are flat on the floor.
- Thighs are parallel to the ground.
- If the feet do not reach the floor, they can be placed on a book or other flat object.
- The trumpet should be angled slightly lower than parallel to the floor.

## Common Posture Mistakes

Observe every day whether they are still using good posture. It is amazing to see what kind of posture they will use if they think you are not watching! Watch out for posture problems, like :

Hunching the shoulders

Leaning forward with the elbows on the knees

Slouching and/or legs crossed

# Holding the Trumpet

## Hand Position

Without the trumpet, have the student let his or her arms hang loosely. If the student brings the hands up by bending at the elbows, keeping them relaxed, the hands should form a natural "C" shape. This natural, relaxed "C" in both hands is exactly the way the hands will be formed when holding the trumpet properly. The weight of the trumpet is supported by the left hand.

The right hand fingers should be curved, making a backward "C" shape with the thumb under the lead pipe.

Grasp the valve casings with the left hand, placing the third or fourth finger in the 3rd valve slide ring .

The little finger of the right hand goes on top of the finger hook – *not in it!*

## Common Hand Position Mistakes

If students are not using the natural "C" shape hand position, they are likely to invent other creative ways to hold the trumpet. These can cause stiffness in the wrists and fingers, hurting technique and possibly causing injury. Remind your students about the correct hand position if you see any problems, including the examples below:

Right hand little finger in the hook instead of on top of it

The right thumb hooked around the lead pipe or fingers too far over the valve buttons

First finger or little finger from the left hand in the 3rd valve slide ring

# Making a Sound

## Air Support

Sound on all wind instruments like the trumpet starts with the air, so proper air support is critical. The normal breathing we do while reading a book or riding the bus has as much to do with breathing on the trumpet as walking your dog has to do with winning an Olympic race. Playing the trumpet requires athletic breathing! Just like athletes, we need to train ourselves to breathe correctly.

First, we need to sit up straight, just as we learned in Setting Up for Success. The chin should be parallel to the ground to keep the airway open. Any tension in the throat will squeeze off the air supply. As breathing athletes, we need to stretch before we play by taking several deep breaths. The body should be relaxed. Have student sigh or yawn to experience a relaxed, open throat.

To explain the kind of air support needed on the trumpet, tell your students to imagine filling up with air from the bottom up. Now, imagine squeezing the air out from the bottom the same way you squeeze toothpaste out of a tube from the bottom up. Unlike toothpaste, however, the air needs to come out fast like a spray can. You can also ask them to imagine blowing a paper airplane from one end of the room to the other. The muscles of the lower abdomen provide the pressure to move the air quickly, but be careful not to make the body tense. Tense muscles will not move the air, so remember to keep the throat relaxed.

## Embouchure

Sound is vibration. On a string instrument like the violin, the vibration happens when a string is plucked or strummed or a bow is dragged across the strings. On a reed instrument like the oboe or clarinet, sound happens when the airstream passes over the reed, causing it to vibrate. On brass instruments like the trumpet, sound is produced when air passing through the lips causes them to vibrate. This vibration is called the “buzz”.

Some teachers start students by buzzing without the instrument, then add the mouthpiece and trumpet once a good buzz is heard. Others start students on the mouthpiece or even the whole trumpet first. With experience, you can decide which approach gets the best results for you.

*Embouchure* is the shape of the mouth and the way it is used when playing a wind instrument. To keep the throat open and relaxed, have students yawn or sigh on a silent “OH”. The teeth should be separated about a finger’s width. To start the buzz, ask students to form their lips into a “B” or “M” shape, as if they are about to say “Burma” or “Myanmar”. The lips should touch naturally—not tight and not loose. The corners of the mouth should be firm and pressed securely against the teeth, but not pulled back. They simply need to blow air through the lips to make them vibrate. You can tell them to “Blow through Burma”.

## The First Sounds

With the mouth still in a "B" position, the students should lick their lips and set the cup of the mouthpiece on the center of their lips. It should be in a 50/50 position: 50% top lip, 50% bottom lip in the cup. Ask them to make their first sound on the trumpet by buzzing in the mouthpiece. Watch for any changes in the facial expression, lip shape, or tension in the body. The student should stay relaxed and maintain the "B" or "M" formation of the lips.

Students often get a very good sound on their first try. Do not let them feel discouraged if they do not. It is almost impossible to tell which students will be successful at the trumpet from the first attempt. It is important to keep the first lessons positive and light-hearted. Students who enjoy music will try even harder to succeed.

Correct 50/50 mouthpiece placement, flat chin, and relaxed "B" or "M" lip formation. The open is open and smooth.

## Common Embouchure Problems

If a trumpet student has poor tone quality, you may be able to see the cause of the problem visually. The pictures below demonstrate some of the problems you might see. These are only a reference. Remember, everyone's face is a little different, so use your best judgment. If there is only air with no tone at all, but the embouchure looks correct, it may simply be due to using not enough air support. Remind the student to use fast-moving air at all times.

The lips are spread too wide. We only hear rushing air with little or no tone. Remind the student to close the lips on a relaxed "B" or "M" formation. Say "Blow through Burma." A dry, airy tone may also be due to the lips or inside of the mouthpiece being dry. Ask the student to lip the lips and the inside of the mouthpiece.

The lips are puckered. There is too much air in the tone or the tone may be tight and pinched. Remind the student to use a “B” or “M” formation with the lips.

The lips are tight and pursed. The tone is thin and pinched. Ask the student to relax the lips into a more gentle “B” or “M” shape. Practice saying “Blow through Burma” smoothly.

The face shows strain and the sound may be stopped. If there is a tone, it is forced and tight. If the throat is closed, tension in the neck may be visible. The lips also may not be allowing air to pass through. Remind the student to relax the throat and form the lips into a gentle “B” or “M” shape. Say “Blow through Burma.”

The mouthpiece is pressed too hard against the lips. Ask the student to relax the pressure from the left hand and be sure the right little finger is not in the hook.

The corners of the mouth are pulled back into a smile. The tone is thin and tight. Air may escape from the sides of the mouth. Ask the student to push the corners of the mouth forward and hold them firmly against the teeth.

The corners of the mouth are pulled down into a frown. The tone is thin and high notes are difficult. Ask the student to press the corners of the mouth forward on the teeth.

The chin is bunched and the bottom lip is folded down. The tone is thin and rough, and the pitch is very flat. Remind the student to flatten the chin and form the lips into a relaxed “B” or “M” shape.

The wet inside of the lips are showing around mouthpiece. The tone is rough and sounds like the student is spitting into the trumpet. Ask the student to lower the jaw, flatten the chin, and form a “B” or “M” shape with the lips.

The lips are rolled in. The tone is uncontrollable with air escaping from the sides of the mouth. Ask the student to focus the vibration in the center of the lips and form a more relaxed “B” or “M” shape.

The bottom lip is pushed forward. The sound is thin and gravelly. Remind the student to form the lips evenly into a “B” or “M” shape.

The top lip is pushed forward, covering the bottom lip. The tone is thin and high notes are difficult. Remind the student to form the lips evenly into a “B” or “M” shape.

The cheeks are puffed. The tone is unsteady and pitch is difficult to control. Ask the student to press the corners of the mouth securely against the teeth. Playing in front of a mirror will help.

The lips are puffed. Tone and pitch are extremely unsteady. Remind the student to use a natural "B" or "M" shape with the lips. Practice saying "Blow through Burma."

The mouthpiece is placed too high. The tone is either fuzzy when playing softly, but easily becomes to bright when playing louder dynamics. Low notes are difficult. Remind the student to place the mouthpiece in a 50/50 position with equal amounts of top and bottom lip in the cup.

The mouthpiece is placed too low. The tone is thin and the pitch is slightly flat. Low notes are difficult. Remind the student to place the mouthpiece in a 50/50 position with equal amounts of top and bottom lip in the cup.

# Taking Care of the Trumpet

## Oiling the Valves

The valves will need to be oiled frequently. Some teachers recommend oiling them every day, while others simply say they should be oiled whenever the valves feel like they are not moving smoothly or they spring back up slowly after being pressed. Add oil by pulling out the valve and putting a few drops of oil along the piston as shown in the picture. You can pull them out completely or just raise them enough to reach the piston. If you take them all the way out, remember which valve goes where! If you put the valves back in the wrong order, you will not be able to blow air through the trumpet. Some trumpet valves are numbered 1, 2, and 3 to help you remember where to put them.

Pay attention to which way the valves are turned, as well. Turning them the wrong way will also stop air from going through the trumpet. To help you, there is usually a notch inside the valve casing that lines up with a tab on the valve guide. Drop the valve into the casing and turn it until it clicks into place.

Do not add oil by dripping it into the holes on the bottom of the trumpet valve casings. Dirt can build up in the bottom valve caps and pouring oil in this way will spread that debris around the valve, causing damage when the valves are pressed. A similar problem can occur if oil is poured in through the valve slides. The best way is by adding oil directly to the sides of the valve as described above.

## Removing Water

From time to time while playing the trumpet, water may build up inside the tuning slide or third valve slide. This water is condensation from the player's warm breath. If this happens, you may hear a gargling sound in the trumpet's tone. To remove water from the tuning slide, simply press the water key on the tuning slide and blow air through the trumpet. Water will drip onto the floor, so watch your feet. It is considered very bad manners to blow water onto your neighbor's foot! For the third valve slide, press the third valve while opening the third valve slide water key and blow air through the trumpet. Before putting the trumpet away each day, the student should empty any water from the slides.

## Lubricating the Slides

In addition to oiling the valves, the tuning slide and valve slides will need to be lubricated regularly to keep them moving smoothly. There are many types of slide creams, greases, and gels that work well and are made especially for trumpet slides. Some of them can be purchased from the Moonlight Musical Company on Theinphyu Road in Yangon. Remove the slide and clean off any dirt or old lubricant. Then, use your finger to spread a thin layer of the new lubricant along the part of the slide that inserts into the body of the trumpet.

If no lubricants made especially for trumpet are available, it is acceptable to use Vaseline. Some trumpet players have substituted other kinds of grease, but be aware that some greases can build up on the slides and make the problems worse.

## Cleaning with a Snake

Over time material will build up on the inside of the trumpet pipes, especially the lead pipe and tuning slide. Some parts of the trumpet can be cleaned out with a tool called a trumpet snake. The snake is a long, flexible wire with brushes at both ends. Remove the tuning slide and push the snake through the trumpet. Clean any debris off the brush and push it through the tuning slide as well. It is possible to use the snake on the valve slides, but it probably will not go all the way through. You must also be careful not to push material into the valve casings as it could damage the valves, causing them to move slowly or even become stuck.

## Mouthpiece Brush

Bacteria, mold, and dirt can build up quickly in the mouthpiece shank. After washing it with soap and water, use a tapered mouthpiece brush to scrub the inside of the shank. Silver polish can be used on silver-plated mouthpieces to restore the shine.

## Polishing

Water spots, natural oil from the player's hands, and corrosion caused by Myanmar's humid climate can slowly destroy the lacquer on the outside of the trumpet. This only affects the looks of the instrument and does not hurt the sound quality. If keeping the trumpet shiny matters to you, it can be polished with a soft, clean cloth. Wipe away any water drops from the outside of the instrument and polish away any fingerprints before putting the trumpet back in its case.

# Trumpet Positions

## Why Position Instead of Fingering?

You may hear about trumpet "fingerings" to describe which valves are pressed on the trumpet. When speaking of a fingering, people say a note is played 12 or 13 (pronounced "one and two" or "one and three"), meaning you would press the first and second or first and third valves. That is the most common way to describe how notes are played. The weakness is that it does not help the student understand the order in which the valves should be lowered to make the tubing longer by steps.

As you have learned, valves allow the trumpet player to change which overtone series is being used by directing the air into different length valve slides. Each one lowers the pitch by a different amount. Using the valves to send air through one, some, all, or none of the valve slides produces all the lengths needed to play any note on the trumpet. The second valve slide is the shortest. The third is the longest. The first is in between. The trumpet is using the shortest length of pipe when none of the valves are pressed. It gets a little longer when the second valve is pressed, then a bit longer when the first is pressed. The third would be the next one added, but we almost never use the third valve by itself because it would be very out-of-tune. The first and second valve slides combined are about the same length as the third and play in tune. The next lower valve combination is adding the second and third valve slides together, followed by the first and third. The longest length of tubing is all three valve slides combined. In other words, the seven possible valve combinations in order from shortest to longest is: open, 2, 1, 12, 23, 13, 123.

The system used above is the easiest way to describe which valves are being pressed, but remembering the order is not easy at all. Instead, I spend a little extra time in the first few weeks of a beginning band class teaching the trumpet players to call those valve combinations "positions" and numbering them in order. We practice pressing the valves while saying the position numbers. Within a short time, they have the order memorized and can correctly press the valves for any position I call out even in random order.

Another great benefit of using "positions" instead of "fingerings" is that trumpet positions affect the length of tubing used in exactly the same way as trombone slide positions and in the same order. The valves on other brass instruments work in the same way as they do on the trumpet. In a band with trumpets, trombones, euphoniums, and tubas all mixed together, it is easy to refer to positions because, if they are playing a unison melody (though played in different octaves depending on the range of the instrument), they will all be using the same positions at the same time. 5$^{th}$ position on a trombone produces a note exactly one octave below a note played in 5$^{th}$ position (the 23 fingering) on a trumpet. If a student later wants to switch from one brass instrument to another, he or she will already be an expert at playing all the positions in the right order.

1 

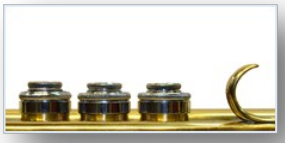
2 

3 

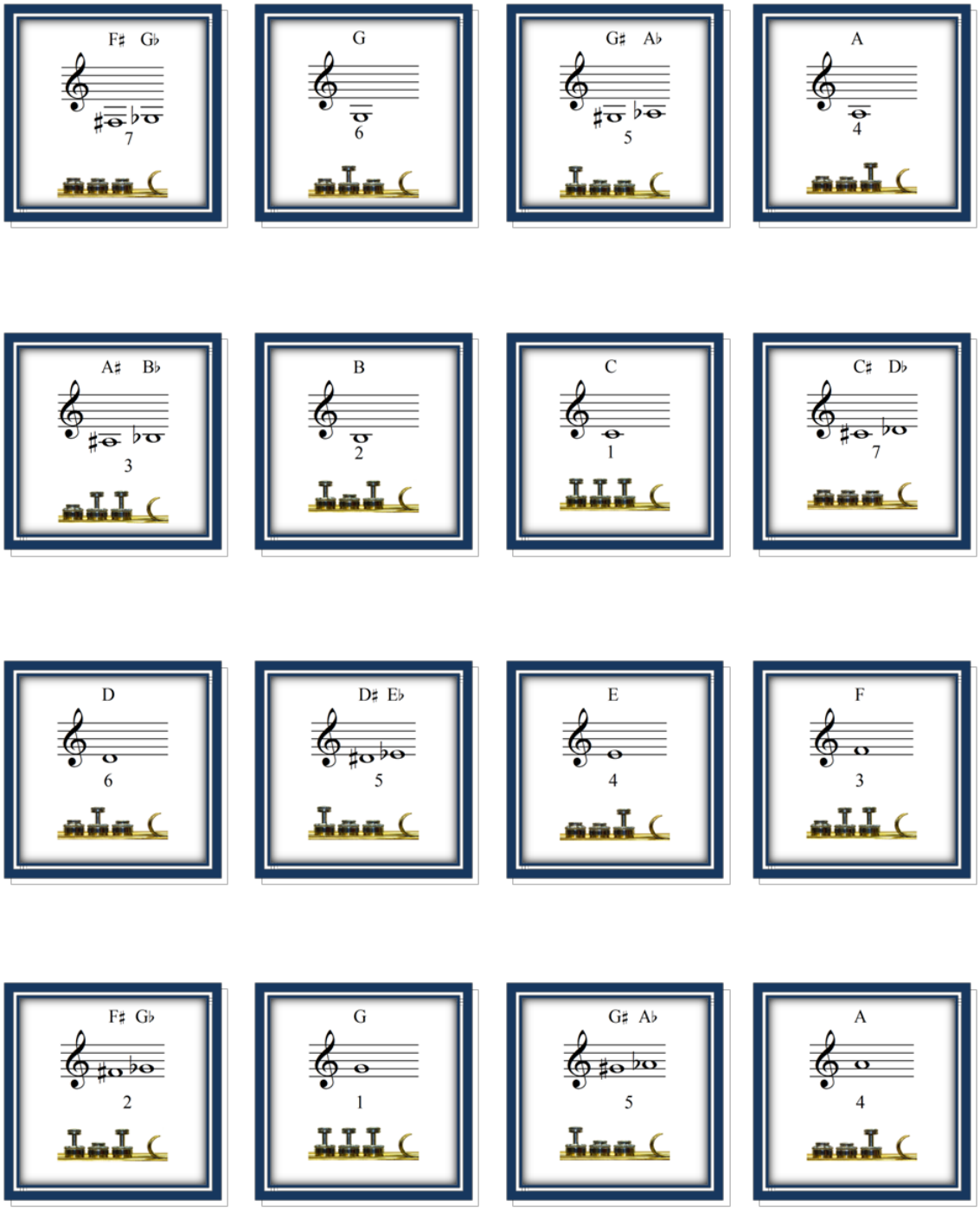
4 

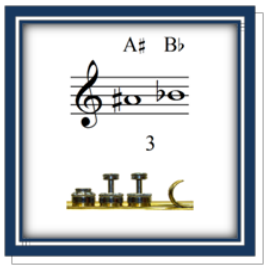
5 

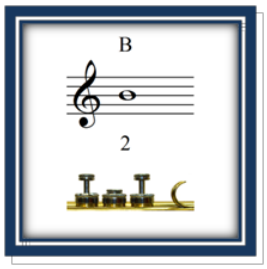
6 

7 

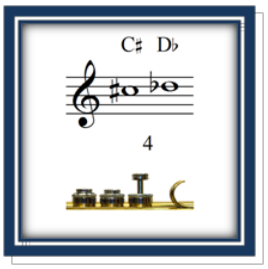
# Trumpet Position Chart

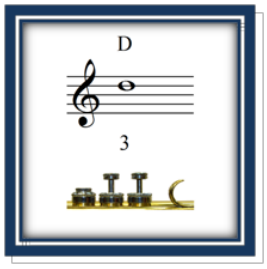


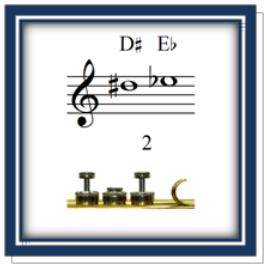

A♯ B♭
3


B
2

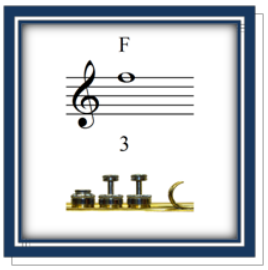

C
1

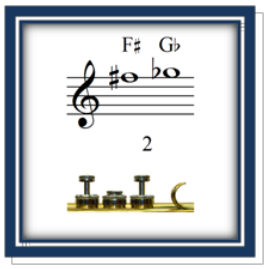

C♯ D♭
4


D
3

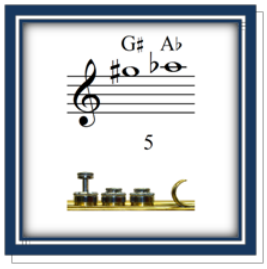

D♯ E♭
2

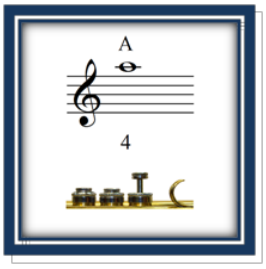

E
1

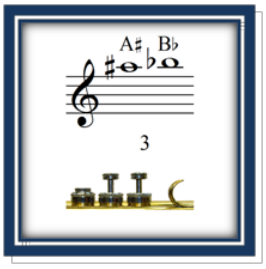

F
3

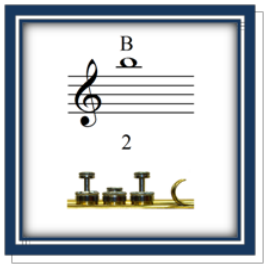

F♯ G♭
2


G
1


G♯ A♭
5


A
4


A♯ B♭
3

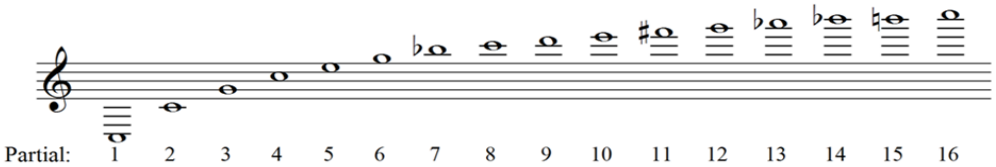

B
2


C
1

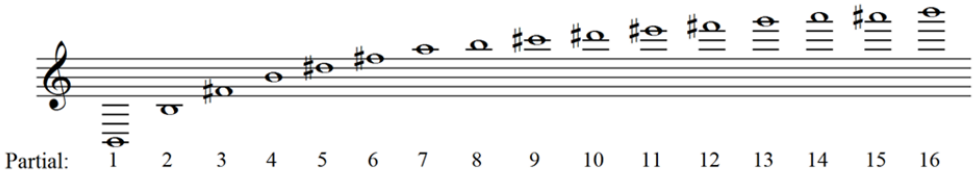
# The Overtone Series

The Overtone Series consists of all the notes that can be played in the same position. Each pitch in the series is called a partial. You switch between the partials by changing the pitch buzzed by the lips. The first partial is called the Fundamental. The Fundamental is too low for most people to play, so we usually start with the second partial, which is an octave above the Fundamental. The third partial is a perfect 5th above the second partial. Below you can see partials 1 to 16 for each of the positions on the trumpet. For the first few years, most of your students will only be able to play the 2nd through the 8th partial. It is not possible to play a chromatic or even a major scale in the first eight partials of a single overtone series, so the next section will show you how use notes out of more than one.

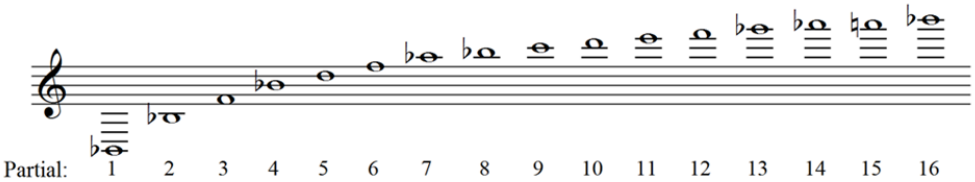
**Trumpet Overtone Series in 1st Position (Open Position)**



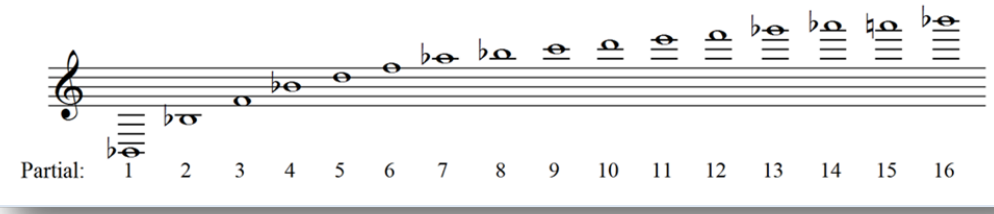

**Trumpet Overtone Series in 2nd Position**



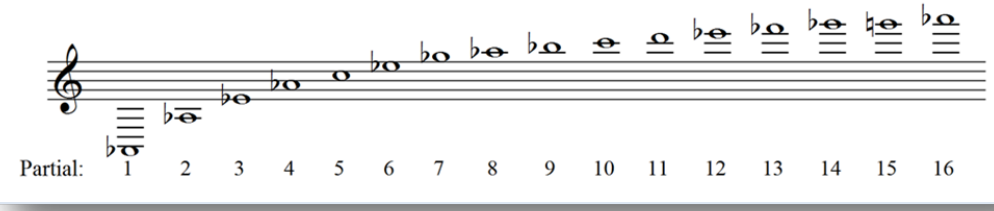

**Trumpet Overtone Series in 3rd Position**



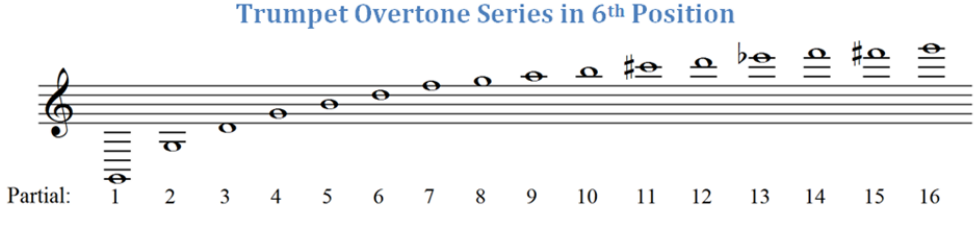
### Trumpet Overtone Series in 4th Position



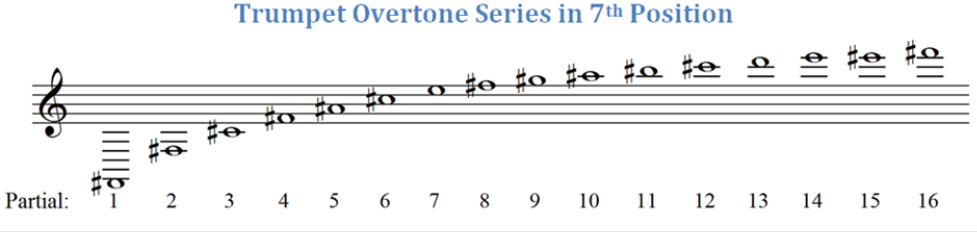

### Trumpet Overtone Series in 5th Position




### Trumpet Overtone Series in 6th Position




### Trumpet Overtone Series in 7th Position



# Trumpet Intonation

## Tuning the Trumpet

The general pitch of the trumpet is set by adjusting the main tuning slide. If the trumpet sounds sharp, pull the tuning slide out a short distance to lower the pitch. If it sounds flat, push in the slide in to raise the pitch. The best tuning note is Middle C (Concert B♭) or the C above Middle C.

Do not let a student assume that just because the tuning slide has been set in the right position that he or she will automatically play every note in tune. The pitch of individual notes will be affected by the airspeed, the embouchure, and the pitch tendencies of the valves and partials. Below is a brief explanation of pitch tendencies caused by certain valve combinations and the overtone series. Nevertheless, train your students to trust their ears more than the instrument to tell them whether they are playing in tune.

## Valve Combinations

Each valve has its own pitch characteristics. *Depending on the partial*, the "open" position (no valves being used) should play in tune if the tuning slide has been adjusted. By themselves, the first and second valves are designed to play in tune, as well. The third valve is slightly flat and is almost never used by itself. Try to memorize the following chart of pitch tendencies associated only with valve combinations.

**Valve Combination Pitch Tendencies**

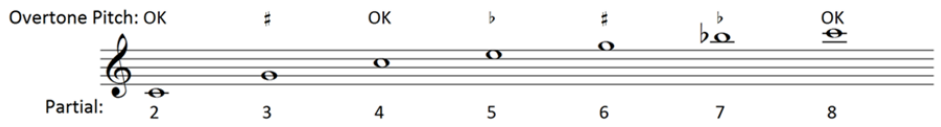
| Position | Valve Combination | Pitch Tendency |
|---|---|---|
| 1 | Open | OK |
| 2 | 2 | OK |
| 3 | 1 | OK |
| 4 | 12 | Slightly sharp |
| 5 | 23 | Slightly flat |
| 6 | 13 | Moderately sharp |
| 7 | 123 | Very sharp |

Because many notes can be played in more than one position – for example, 4th space E can be played in 1st position (Open), 4th position (12), and 7th position (123) – you can use the above chart to help you decide which position will have the best intonation. But Wait! There is more to determining the right position for a note than just knowing the valve combination pitch tendency. You also have to consider the overtone pitch tendency for the partial.

## Partial Pitch

As we learned in the section on the Overtone Series, partials are the various pitches that can be played by changing the pitch buzzed with the lips without changing the valves pressed. Now we must understand how this affects intonation. 1st position (open valve combination) should play in tune, but this is only true for the 1st, 2nd, 4th, 8th, and 16th partials. Those are all the octaves of the fundamental, in this case C. The 3rd, 6th, and 12th partials which play octaves of the Perfect 5th (G) of the fundamental are all slightly sharp. The 5th and 10th partials which play octaves of the Major 3rd (E) of the fundamental are moderately flat. The 7th partial which plays a minor seventh (B-flat) almost three octaves above the fundamental is very flat. The overtone pitch tendencies for notes in the C series young students are likely to encounter are shown in the figure below. Note that we are only talking about the overtone pitches, *not* considering the effect of the valve combinations listed above.

**Trumpet Pitch Tendencies for the Open Position Overtone Series**




## Putting It Together

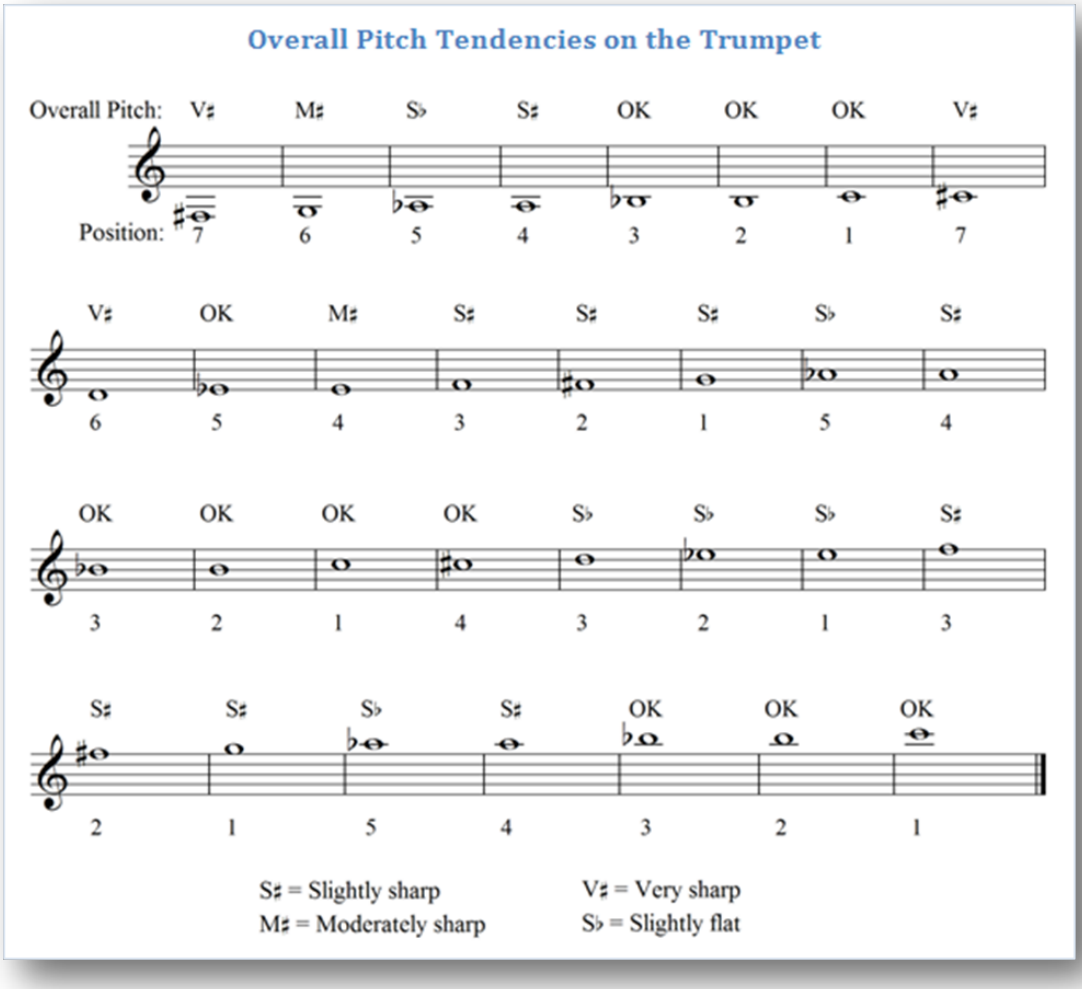
As you can see from the previous two sections, the pitch of a note is affected by both the Overtone Series *and* the valve combination. We will use top line F# as our example. It can be played in 2nd position, 5th position, and 7th position. In 2nd position, it is the 6th partial. In 5th position, it is the 7th partial. In 7th position, it is the 8th partial. Compare the pitch tendencies for each position/partial combination on the chart below and notice the combined effect on the overall pitch. As you can see, none of these is perfectly in tune, but 2nd position is clearly the best.

**Position Options for Top Line F#**

| Valve Position | Position Pitch | Partial | Partial Pitch | Overall Pitch |
|---|---|---|---|---|
| 2 | OK | 6 | Slightly sharp | Slightly Sharp |
| 5 | Slightly flat | 7 | Very flat | Extremely flat |
| 7 | Very sharp | 8 | OK | Very sharp |

## Standard Positions and Pitch Tendencies

Combining what we know of valve combination and overtone pitch tendencies, we can create the chart below of the most in-tune positions for each note in a young trumpeter's range. This will, however, contain some notes that will need to be adjusted with the embouchure. Notice that the notes in 6th and 7th position are very sharp, so they must also be corrected by pushing out the third (and sometimes also the first) valve slide. This chart also does not consider pitch problems caused by an undeveloped embouchure or a student pressing the mouthpiece against the lips too hard.



## Adjusting the Pitch While Playing

Understanding or even memorizing the pitch tendencies of the valves and overtone series is useful, but it is more important to have the skill of adjusting pitch to match the rest of the ensemble in real time. To do this, a musician must train him or herself to "hear" the right pitch in the mind. Training your students' ears with sight-singing, like using solfège ("Do Re Mi"), will help to fix the exact pitches in their minds. To sing in tune, a musician must think in tune to send the right pitch signal to the voice.

When playing the trumpet, the mind listens to the sound of the rest of the ensemble and then sends the pitch signal to the embouchure and breathing muscles to adjust the intonation up or down. A faster airstream combined with a tighter embouchure (tightening in the center and pulling back the corners of the mouth) will raise the pitch. Slowing the air and loosening the embouchure will lower the pitch. It is great practice for trumpet students to sing and play the exercises they are studying, playing on the mouthpiece alone as well as on the trumpet.

Practicing with drones is another useful method for training the ears. A drone is a long, sustained tone that does not change pitch. Beginning students can practice tuning in unison with the pitch the drone is playing. As students advance, they can begin tuning intervals like octaves, fifths, and more. Drone recordings can be downloaded from the Internet or created with computers or the electronic keyboards available in Myanmar.

# Transposition

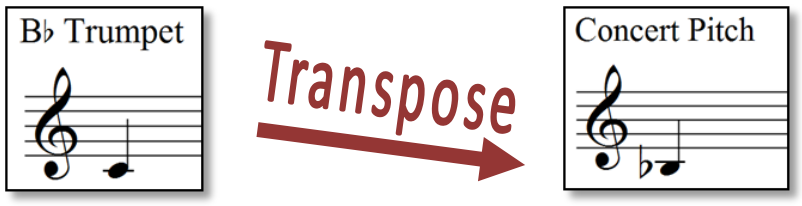
## Why is it called B♭ Trumpet?

In the section on the overtone series, we learned the fundamental pitch in 1st position (open, no valves pressed) is C an octave below Middle C. This is actually the *written* fundamental. What we really hear is a B♭ one whole step below the written pitch. This is because B♭ trumpet is a *transposing* instrument.

Transposing means changing notes from one key to another. That means playing the music in a different key from the original. The B♭ trumpet is a "transposing instrument" because its notes are written in a different key than what we actually hear. When a trumpet player plays a Middle C on a part written for B♭ trumpet, we hear a B♭ below Middle C. This is why it is called a B♭ trumpet. By the way, if you play a C on an E♭ alto saxophone, we would hear an E♭.

## Concert Pitch

The notes we really hear are called "Concert" pitches. If written Middle C on B♭ trumpet really sounds like B♭, then a B♭ trumpet's written C is its Concert B♭. The rule is that the Concert pitch is a whole step below the written note for B♭ trumpet. In other words, if you want to write a B♭ trumpet part, you must transpose the Concert pitch notes up one whole step. If you want to know what a B♭ trumpet's written note sounds like in Concert pitch, transpose it down a whole step. A song in the key of Concert E♭ would be written in the key of F for the B♭ trumpet.

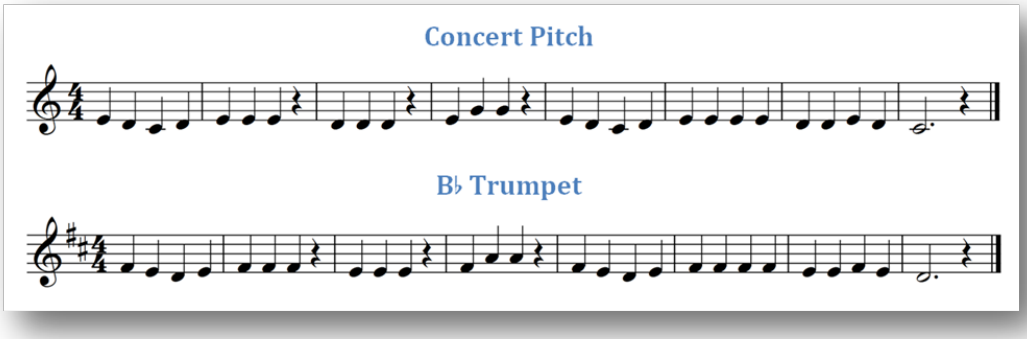



Bb clarinet is another Bb transposing instrument and its written notes are in the same key as those for a Bb trumpet. A Bb tenor saxophone's written notes are in the same key as Bb trumpet and Bb clarinet, but it sounds an octave lower. Some other transposing instruments commonly found in wind ensembles are the Bb bass clarinet, Eb alto saxophone, Eb baritone saxophone, and F horn. Along with vocalists, common band instruments like C flute and tenor trombone, and string instruments like violin, piano, and guitar are non-transposing. Their written notes are exactly like the notes we hear, so they are concert key instruments.

## Transpose the Key, Not Just the Notes

When writing a part for B♭ trumpet, do not forget to transpose the key signature as well as the notes. In the following example, notice how the B♭ trumpet part is transposed into a key

one whole step higher than the Concert pitch key, from Concert C Major to D Major for the trumpet. We will use the familiar melody, "Mary Had a Little Lamb".




## Why Transpose?

All of that sounds very complicated, so you are probably wondering, "Why do we write C when we really mean Concert B♭?" A student will probably ask you that same question some day. It is a very good question. Why not just write all the notes in concert pitch? The answer is partly about historical tradition, and partly because it makes playing other trumpets easier.

## Tradition

In the section on the Development of the Modern Trumpet, we learned that the modern B♭ trumpet with its valves descends from older "natural" trumpets that had no valves. This means that a player only played notes out of one overtone series. Even when interchangeable pipes were invented to change the key of the instrument, each pipe could only produce one series. A player was only responsible for playing the right partial in the series and did not need to worry about scales or key signatures, so the tradition was always to write the notes in the key of C, no matter which key the instrument was set up to play. The tradition has stayed, so the B♭ trumpet with its B♭ fundamental is written as if it were in the key of C when the Concert key is B♭.

## Different Trumpets, Same Positions

Not all trumpets are B♭. There are trumpets in C, A, D, E♭, and G, just to name a few. All trumpets use the same positions except the piccolo trumpet, which uses positions for notes an octave below the written ones – don't worry, you probably will never have a piccolo trumpet in your band! As we mentioned before, a Middle C on music written for a B♭ trumpet sounds like a Concert B♭ when played on a B♭ trumpet. You already learned that Middle C on B♭ trumpet is played in 1st position. Middle C written for A trumpet and played on an A trumpet is also played in 1st position. The difference is that it sounds like A. That means any trumpet player can pick up any trumpet and play the notes written for that trumpet without learning any new positions.

# Practice

## Warming Up with Breathing Exercises

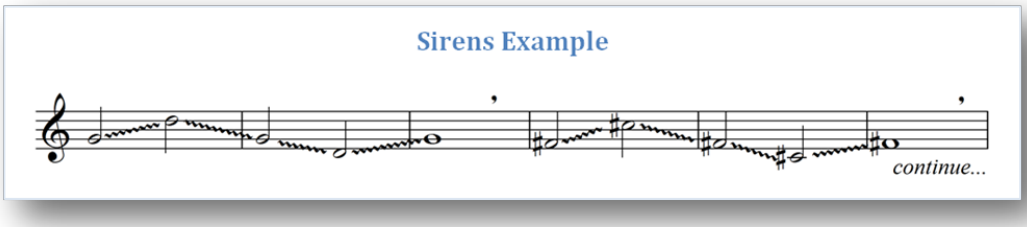
At the beginning of every practice session, teach your students to warm up with breathing exercises. You may decide to design your own exercises, but in general, they should address stretching, relaxation, deep breathing, and exhaling a large volume of fast-moving air.

- Any muscles that could restrict breathing should be stretched and relaxed, including the abdominal muscles that cover the stomach, the back muscles, the shoulders, the neck and throat, and the intercostal muscles that connect the ribs to each other.
- Shake the body out to relax the muscles, letting them fill with oxygen-rich blood.
- Take a few deep breaths in, opening the throat with an "OH" vowel shape. It should feel relaxed, like yawning or sighing. You should only hear quietly rushing air. A noisy breath usually means the mouth or throat are tight.
- Breathe out with the same open, relaxed "OH" vowel shape. Focus on letting nothing get in the way of the air. Things that block the air might be a tight throat, a tongue raised in the back, middle, or front, or teeth that are too close together.

## Warming Up On the Mouthpiece

Some teachers recommend warming up on the mouthpiece alone before adding it to the trumpet while others do not feel it is important. You may decide for yourself what to recommend for your students. Buzzing on the mouthpiece alone can be helpful for training the lips to buzz precisely the right pitch for each note on the trumpet, improving accuracy.

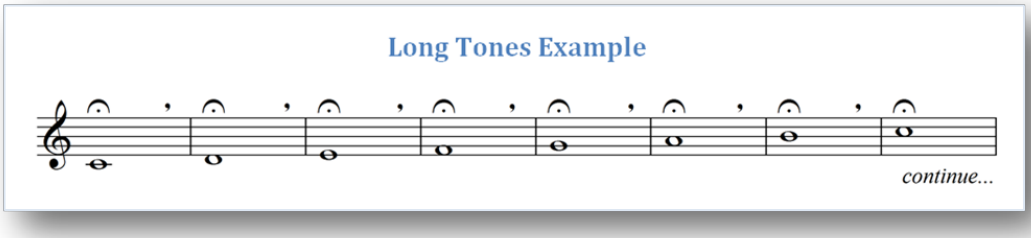
- Hold the mouthpiece by the shank with the thumb and first finger. Hold it on the edge of the bottom lip like a cup. Begin buzzing the lips, and then gently rotate the mouthpiece up the lips until the buzz is heard in the mouthpiece.
- Buzz with an open, relaxed flow of air with the same "OH" vowel shape in the mouth and throat used in the breathing exercises. Check that the body is still relaxed.
- Keep the teeth separated
- Hold a buzz on a mid-range note like a second-line G.
- Perform "sirens" (smooth glissandos up and down), gradually increasing the range without pressing the mouthpiece harder against the lips.
- Add articulation, tonguing short scale patterns, arpeggios, and simple songs.



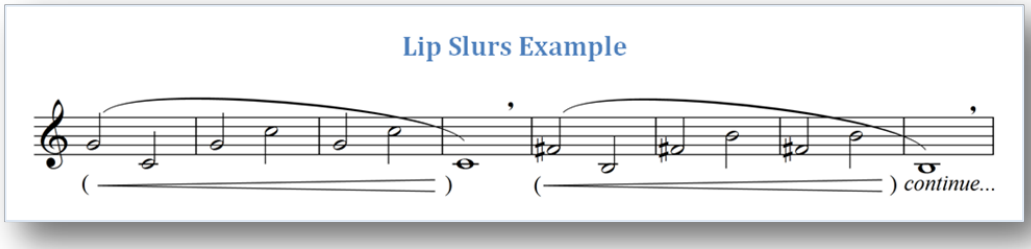
## Warming Up On the Instrument

Add the mouthpiece to the trumpet and continue the warm-up.

- Keep the neck, shoulders, and arms relaxed.
- Play long tones. Take a deep, open breath and hold a low or mid-range note with good air support for at least ten seconds or as long as possible. Play a scale on long tones. Play with a centered, full tone, listening for a steady, open sound. Changes in the sound could mean the lips or airstream are not open and relaxed.




- Play lip slurs, slurring smoothly between partials of the overtone series in each position. Keep the air supported, maybe even making a crescendo through the line.




## Practice checklist

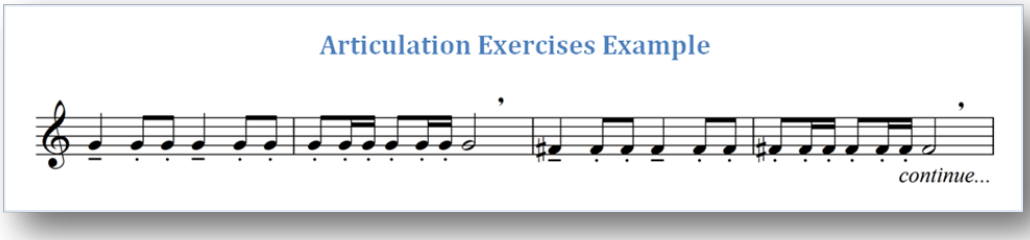
While performing the warm-up and practicing, the student should ask himself or herself:

- Am I sitting with good posture?
- Is my body relaxed?
- Am I using the best air support?
- Is my tone beautiful (clear and warm)?
- Do I like what I hear?

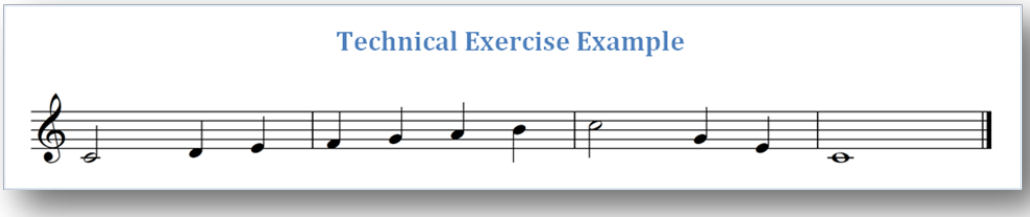
## What to Practice

After a proper warm-up, an effective practice session should help the player exercise all areas of development. Focusing too much on one area and not enough on another could lead to serious weaknesses that slow the student's growth as a well-rounded musician. Exercises should be simplified for beginning students and should increase in difficulty as the student improves. Many band method books are designed this way. Be sure your students are working on the following:

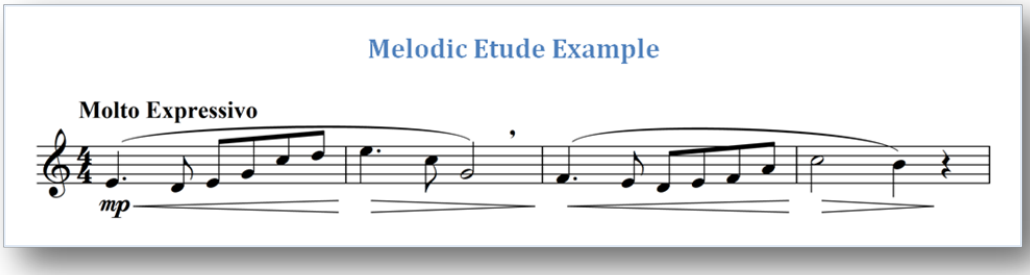
- Articulation and rhythm exercises




- Technical exercises like scales and patterns like arpeggios




- Melodic etudes that challenge the student's ability to express musically




- Performance music like band concert music or a solo piece
- Something fun – if playing the trumpet is never fun, then why do it?

Let them know it's O.K.
to take a break !!

# Buying a Trumpet

## Brands

There are many great trumpet makers. Below are just a few brands to consider. Not all are available in Myanmar, but you may be able to find them abroad. Contact a professional trumpet player for more advice on these or other brands not listed here.

The brand most often associated with quality trumpets is Vincent Bach. The Bach company is based in the United States and has been producing trumpets since 1924. Many of the world's top professional trumpet players play Bach trumpets.

Yamaha is another respected name in trumpet making. While not regularly available in Myanmar, secondhand Yamaha trumpets can sometimes be found in some of the music shops in downtown Yangon or in Bogyoke Market. As an Asian brand, Yamaha may be easier to find in Thailand or Singapore than Bach and some of the repairmen in Bangkok specialize in Yamaha instruments. Be aware, however, that Yamaha is also the most popular brand to counterfeit and fake Yamahas can often be found right beside the real thing in shops across Asia. If possible, get an expert opinion from a professional trumpet player before you buy.

Jupiter brand trumpets are a less expensive alternative which are gaining in popularity among students, schools, and even professionals. Like Yamaha, Jupiter trumpets are made in Asia and can easily be found in Bangkok.

Power Beat is a very inexpensive Taiwanese brand that can be purchased at the Moonlight Musical Company, located at #440 Theinphyu Road, Mingalar Taungnyunt Township in Yangon. For band instruments, Moonlight sells the Power Beat brand exclusively. Moonlight is also the only known shop in Myanmar that performs instrument repairs and is sometimes able to order replacement parts for Power Beat instruments. Buying Power Beat is an affordable way to add instruments to your inventory, but keep in mind that cheaper instruments tend to need repair more often.

Amati trumpets can be purchased at Feroza Musical at No.112 Kyaikkasan Road, Tarmwe Township in Yangon. Amati manufactures its trumpets in the Czech Republic. Feroza Musical imports these instruments from Singapore, so the price may be a little higher.

## Student, Intermediate, or Professional?

Most trumpet manufacturers make a range of models. Some are designed for beginning students, others for more advanced intermediate students, and others are made with the professional musician in mind.

Student models are generally the least expensive. They are usually built by machine from lower quality metal alloys than professional trumpets and may not have some extra features like the thumb saddle and third valve slide stops. Student models from quality brands are usually very durable and economical.

Intermediate trumpets are usually designed in one of two ways. They may be based on student models, but with some professional features added, or they may be based on professional models, but missing some of the features typically found on professional trumpets. As mid-priced instruments, they may be an excellent choice for an advancing student or a semiprofessional on a budget.

Professional trumpets are often handcrafted and made from the best materials. A very serious student or professional may prefer the more expensive professional instrument as a long-term investment.

## New Versus Secondhand

Another economical way to acquire instruments for your band is to buy them secondhand. With plenty of money, we would all love to outfit our bands with the best quality new instruments, but in the real world, high quality new instruments may be out of your budget. In general, a new instrument should be in perfect working order – but always play-test it first (see below); however, a low quality new instrument could develop repair problems quickly. A high quality secondhand trumpet in good condition will often play better and last longer than a new low quality instrument, and the cost may be the same or even lower. While new instruments usually come with a repair warranty in foreign countries such as the United States, this is rare in Myanmar and foreign warranties are meaningless for the Burmese band director!

## Play-Testing

Many shops in Myanmar are not familiar with the concept of play-testing an instrument. Never buy a trumpet unless you have thoroughly tested it. Visually inspect it for any obvious damage like large dents, missing parts, broken solder points, or bent pipes. Check that all the slides and valves move smoothly and play it with a tuner. Get the instrument in tune with itself by tuning to a

Concert B♭ and adjusting with the main tuning slide. Then, check the pitch for consistency throughout the range, keeping in mind the pitch tendencies mentioned previously. If you do not feel confident to play-test an instrument yourself, you should ask a professional trumpet player or teacher to help you.

## Where to Buy in Myanmar

Owned by the famous singer Khin Maung Htoo, Feroza Musical at No.112 Kyaikkasan Road, Tarmwe Township in Yangon offers imported instruments at an increased price. Though the Amati is the only brand of trumpet normally stocked at Feroza, Khin Maung Htoo has said he would be willing to purchase other brands in Singapore upon request.

The Moonlight Musical Company at #440 Theinphyu Road, Mingalar Taungnyunt Township in Yangon is the largest seller of band instruments in Myanmar. They currently only sell Power Beat brand instruments, but it may be worth asking them if other brands could be made available. As of the writing of this guide, Moonlight is the only Burmese company offering band instrument repair services.

## Outside Myanmar

There are many band instrument dealers throughout the world. Check the internet for shops in cities you might visit. Two popular mail-order companies in the United States are the Woodwind and Brasswind (www.wwbw.com) and Cascio Interstate Music (www.interstatemusic.com). These companies can ship internationally to many Asian countries as well as within the United States. You can use the prices listed on their websites to help you make an educated purchase wherever you shop for instruments.

## Importing

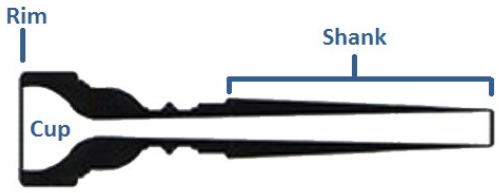
Because instrument selection is so limited in Myanmar, you may choose to buy a trumpet abroad. Band instruments are very common in many western countries, so reasonable prices can be found there on both new and secondhand trumpets. Prices may be higher on quality instruments purchased in other Southeast Asian cities like Bangkok and Singapore, but the shorter distance might make it easier to carry them into Myanmar. If you are not abroad to buy the instrument yourself, you will not have the chance to play-test it, so you should ask a trumpet player in the country of purchase for help.

The easiest and cheapest way to bring in a few small instruments is for you or a friend to hand-carry them on a flight. While mailing packages from North America to Myanmar is difficult or impossible, many mail services offer reasonable rates for sending small packages from North America to other countries in Asia. It may not be too expensive for a trumpet player in another country such as the United States to purchase and play-test a trumpet, and then send it to Bangkok where you or a friend can pick it up. Another option is having instruments shipped in, but this can take months and cost hundreds or even thousands of US dollars.

## Mouthpieces

The mouthpiece is the chamber in which the lips vibrate to make sound, so the shape is very important to the sound of the trumpet. Since no two people's lips are exactly the same, it is recommended that each player choose a mouthpiece that feels comfortable, is easy to play, has good intonation, and sounds good. The Bach 7C is the most popular mouthpiece among beginners and a good copy of it can be bought in Yangon. Here are some general guidelines on how shape affects the playability of the mouthpiece:

- Wide, flat rim: Helps to play longer, but harder to play a wide range of pitches
- Narrow, rounded rim: Helps to play a wider range of pitches, but makes the lips tired
- Large cup diameter: Louder volume, but might make the lips tired and limit range
- Small cup diameter: Helps to play longer, but softer volume
- Deep cup: Darker, smoother tone, but hard to play loud and high
- Shallow cup: Helps to play high notes, but brightens the tone



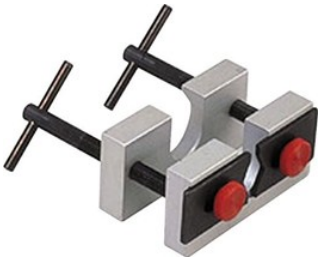
# Trumpet Repair for the Band Director

One often overlooked skill that every band director should have is the ability to do basic repairs. It is a skill that is not taught in most university music education programs, and yet it is a vital part of the job of most band directors. Professional repair shops often take weeks or even months to do even simple repairs. If students were to send their instruments to the shop for every stuck mouthpiece, stuck slide, or water key pad that fell out, you would have a rehearsal room full of students with no horns! Worse, to save money on professional repairs, students or their parents may try to do the repairs themselves without any guidance, possibly doing permanent damage to the instrument.

Repairs generally fall into two categories: repairs you can do yourself and repairs you should leave to the professionals. This section gives a little advice on the first category. Everything else falls into the second.

## Recommended Tools

The following repair materials will be useful for anyone teaching trumpet students:



Mouthpiece puller

Rawhide mallet


Penetrating oil

Scotch Brite pads

Mouthpiece shank dent tool

Water key corks

## Pulling a Stuck Mouthpiece

One of the most common problems with all brass instruments is the stuck mouthpiece. With the right tools this is easy to fix, but repaired improperly, it could ruin the whole instrument! The Bobcat-style mouthpiece puller is expensive, but essential.

Place the instrument on a flat surface. On the puller, slide back the locking plates so you can fit them around the mouthpiece shank. Put the puller on the mouthpiece with the cup of the mouthpiece fitting into the cup of the upper spreading block. Slide the locking plates in to grip the mouthpiece shank and tighten them. It is important that the plates grip the shank *above* the end of the lead pipe since the puller needs to press against the edge of the lead pipe. Then, while holding the puller in place and without letting it touch the rest of the instrument, turn the long screws clockwise to spread the blocks. This will push the mouthpiece out. If these directions are not clear, video demonstrations can be found online with a simple search.

Do not try to pull the mouthpiece out by hammering on it or having a friend hold the trumpet bell while you yank on the mouthpiece. In most cases, the body of the trumpet will bend before the mouthpiece comes loose, leading to misaligned slides and valves, broken solder points, and an expensive repair bill. Be sure to let your students know that you have a mouthpiece puller so they will not try to pull it themselves. If you do not have a mouthpiece puller, try spraying some penetrating oil like WD-40 on the mouthpiece shank. If the mouthpiece does not come loose, send the trumpet to a professional repairman.

## Replacing Water Key Pads

Sometimes the pad in the water key will come out. Every band director should keep a set of extra pads of various sizes on hand in case this happens right before a performance. Synthetic, self-adhesive pads, such as the ones made by Valentino, are the easiest to install. To begin, find a pad that is the right diameter for the key. Simply clean out the pad cup, peel the paper backing off the new pad, and press it into the cup. Pads can also be glued in using hot melt glue. (These types of glue should only be used for brass instrument water key pads, not for replacing woodwind pads.) Synthetic pads are durable and will probably last several years.

## Re-rounding a Mouthpiece Shank

From time to time, the shank end of a brass mouthpiece can become flattened on one side. This often happens when a mouthpiece falls on the floor. If the end is not round, the mouthpiece is likely to become stuck in the lead pipe, so it must be re-rounded. This is usually done with a tapered mandrel with a handle on the thick end. The Valentino Shank Dent Tool is made for this purpose, but if one cannot be found, you can try a metal center punch. Press the small end of the tool into the opening in the shank with a twisting motion. If ordinary hand pressure is not enough to round out the dent, it might be necessary to use a soft rawhide or rubber mallet to tap the tool in further. Be very careful; if you expand the opening too much, the mouthpiece will be ruined and probably need to be replaced. You can also use a mallet to tap around the edges of the shank opening with the tool still inserted.

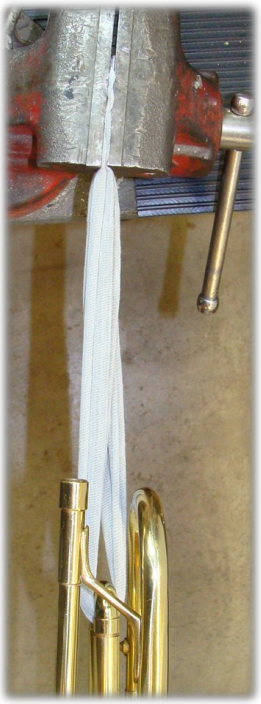
## Pulling a Stuck Tuning Slide

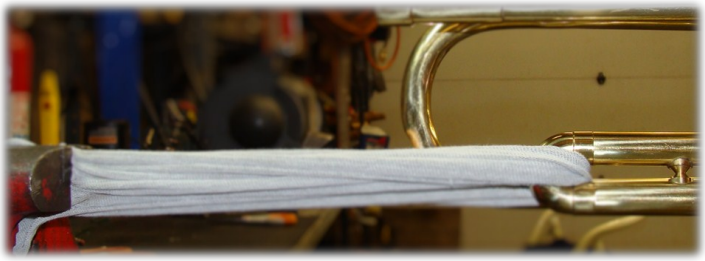
Corroded, dented, or misaligned slides can become stuck, especially if they have not been kept clean and lubricated. Great care should be taken in removing them, so as not to damage the instrument. Spraying a little penetrating oil such as WD-40, into the spaces where the slide meets the body of the trumpet and allowing it to stand overnight may be enough to loosen it. You can try adding heat from a candle.

If the slide still will not move, an effective tool can be made from a block of soft wood about ¾ inch thick and 3 inches wide. Using a cardboard template, trace the inside diameter of the stuck slide. Trace that onto the wooden block and carve the wood into a "U" shape that fits inside the stuck slide perfectly. Place this block inside the bow of the slide and tap on it with a rubber or rawhide mallet. Another treatment with penetrating oil may help. If the slide still will not budge, take it to a professional repairman.

## Pulling Stuck Valve Slides

If valve slides become stuck, great care must be taken in removing them to keep from damaging the trumpet. The first step should be to use a little penetrating oil like WD-40 and heat as described above. If this does not loosen the slide, you can try pulling it with a strip of cloth or rope. Wrap the cloth or rope through the bow of the slide, clamp the ends to something secure like a vice, and pull the trumpet straight away. Be extremely careful: if you do not pull straight, you can easily damage the slide and valve. Do not be afraid to send it to a professional repairman if you do not feel confident to pull the slide correctly.





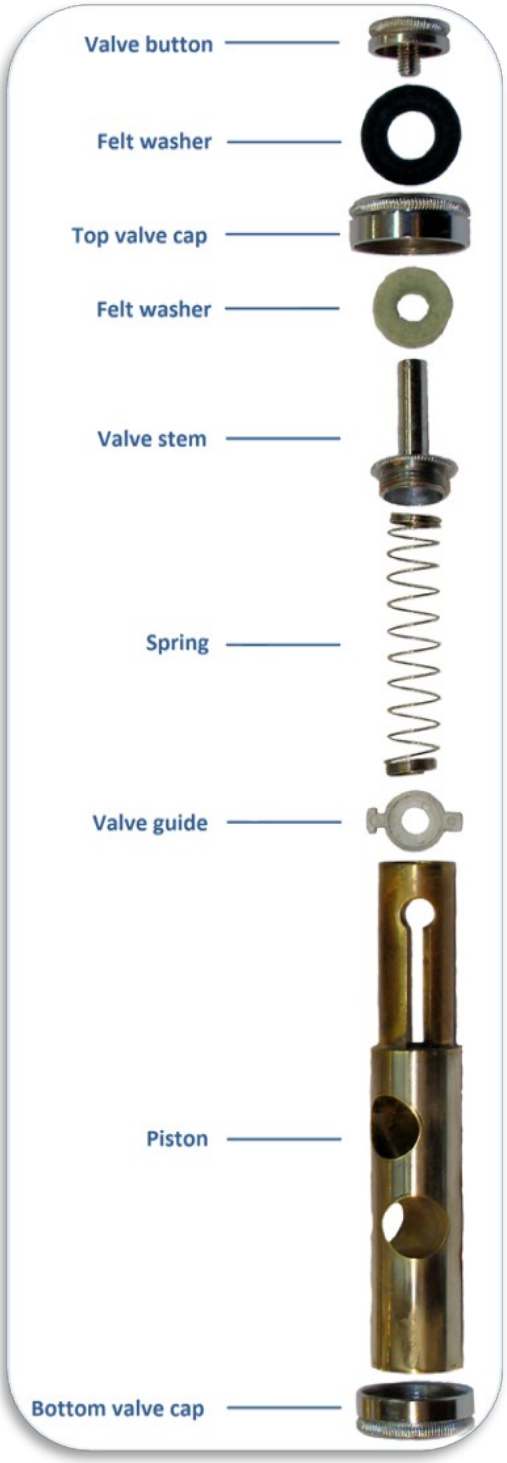
## Cleaning Slides That Have Been Freed

Most slides become stuck due to corrosion, so after pulling a stuck slide, you can gently clean and polish the unlacquered parts with a piece of very fine steel wool or a green Scotch Brite pad.

## Slow Valves

If the valves are moving slowly, a little valve oil may be enough to make them move more smoothly, but sometimes there could be a bigger problem. If the valve casing is dented or deformed, you should have the trumpet repaired by professional repairman. Sometimes, however, the problem could simply be a dirty valve or a bent valve stem.

If the valve piston or inside of the valve casing is dirty or corroded, you can clean them. Remove all the pistons and valve slides from the trumpet. Use a brush with plastic bristles along with a little dish soap and water to scrub the valve casing and lower part of the piston. For added strength, you can mix a light abrasive powder like baking soda with the soap. Be sure to rinse the trumpet and piston thoroughly with water before putting it back together. You will need to oil the valves again as well.

If the valve stem is bent, it may rub against the inner opening of the upper valve cap, causing slow valve movement. Take apart the piston and carefully straighten the valve stem.

Because over time the rubbing caused by the motion of the valves can cause the casings to become larger and the pistons to become smaller, normal valve oil may not be thick enough to seal the space between the piston and casing, so older trumpets can use thicker oil like woodwind key oil or a mix of thick and thin oil (preferably oils made by the same brand).


## Professional Repair Shops in Myanmar and Bangkok

At this time, Moonlight is the only shop in Myanmar that offers repair services for band instruments. Moonlight can fix most problems, but repairs usually take anywhere from a few weeks to over a year. No one at Moonlight is able to play-test instruments before or after repair, so be sure to tell them precisely what you need fixed when you send it in and play-test the instrument yourself when picking it up. The Moonlight Musical Company, Ltd. is located at #440 Theinphyu Road, Mingalar Taungnyunt Township in Yangon. Their phone number is 394-180.

There are a few professional repairmen in Bangkok if you choose to service your trumpet there. Mr. Pinai Prechaporn, professor of repair in the Mahidol University College of Music offers repair services and can be contacted in Thailand at (662) 800-2525. Mr. Prechaporn can also recommend other repairmen if necessary. For Yamaha instruments only, there is a Yamaha Service Center in the Siam Motors Building near National Stadium. Contact information can be found online.

# Introducing the Trumpet to Students

When recruiting for your band, it is important to have all the parts filled. Often the lead melodic voice, trumpet is one of the most valuable instruments in the band. That is why it is so important to build enthusiasm for the trumpet among your students. Since brass instruments are not common in Myanmar, it is likely some children have never seen or heard the instrument. That means you have two jobs: A) show them what it is and B) get them excited about it – in either order!

One of the best ways to inspire young musicians is to invite in older ones. If you have an older trumpet student with even just a little experience, ask him or her to play for the younger ones. If you are starting a new band program, invite a trumpet player from another band such as the military or international school bands. Even better, invite them to a band concert. Seeing someone they already respect playing a shiny trumpet might inspire a child to follow in their footsteps.

Sometimes embassies or nongovernmental organizations (NGOs) invite musicians to Myanmar. German trumpeter, Markus Türk, is among those who often give performances and teach short seminars during visits to Yangon. Contact the embassies or Gitameit Music Center in Yankin Township, Yangon for a schedule of events.

Another great way to motivate young students is to play them video or audio recordings of talented trumpet players. Trumpets can be found in almost every style of music – even in the music the students already love. Modern pop stars like Katy Perry, and rock bands like Avenged Sevenfold, as well as classic rock groups like Chicago have all used trumpets in their music.

Aside from pop and rock, trumpet music is flourishing today in jazz and classical styles as well as marching band and concert band. Videos and MP3s can be found online as well as in the libraries of the Gitameit Music Center and the international schools. Jazz soloists like Wynton Marsalis and Brass ensembles like the Canadian Brass all have recordings online.

Remember to use both male and female examples of successful trumpet players. They should not get the impression that the trumpet is just for boys or just for girls. Be sure to use examples of great Asian trumpet players as well!

# Acknowledgements

A great debt of gratitude is owed to many people for making this project happen, especially…

Professional trumpeter and teacher, Shelly Devlin, for answering a barrage of trumpet-related questions.

John Werth, Certified Band Instrument Repair Technician and veteran band director, for sharing his wealth of practical advice on trumpet repair.

Katherine "Kitty" Blackwell for patiently enduring our photo sessions. A fast learner, she knew exactly how to sit with good posture and even generated some of the ideas, proving kids often intuitively know the right and wrong ways.

Pamornpan "Gift" Komolpamorn of Mahidol University in Bangkok, Thailand, for her trumpet expertise and knowledge of Bangkok repair shops.

Future band directors, Khin Myat Mon and Margaret Ja Htoi Bu, the real target audience of this work, for their practical proof reading.

My wife, Ah Zet, for her encouragement and for communicating with the shops back in Yangon.


Max, Scott, Paul, all the staff, and my fellow students at the American Band College of Sam Houston State University for their help and support in making my ideas for this project come to fruition.

# Bibliography


Adams, Randy. American Band College lecture. 1-2 July 2011.

*Amati-denak, s.r.o.* Web. 25 July 2011. <http://www.amati-denak.cz/en>

"Brass Instruments." *The New Grove Dictionary of Music and Musicians*. 2nd ed. 2001.

"Bugle." *Oxford Dictionary of Music*. 2006.

*Cascio Interstate.com*. Web. 24 July 2011. <http://www.interstatemusic.com>

"Cornet." *The New Grove Dictionary of Music and Musicians*. 2nd ed. 2001.

Devlin, Shelly. Personal interview. 9 July 2011.

Feldstein, Sandy, and Larry Clark. *The Yamaha Advantage: Musicianship from Day One, Trumpet Book 1*. Oskaloosa, IA: PlayinTime Productions, Inc, 2001.

*Jupiter.* Web. 25 July 2011. <http://jupiterinstrument.com>

Lautzenheiser, Tim, et al. *Essential Elements 2000: Trumpet Book 1*. Milwaukee, WI: Hal Leonard Corporation, 2004.

McKee, M. Max, et al. *Embou-Sure: A Step-by-Step Method.* Ashland, OR: W.I.B.C. Publishing, 1987.

*National Association of Professional Band Instrument Repair Technicians.* Web. 23 July 2011. <http://www.napbirt.org>

"Natural trumpet." *Oxford Dictionary of Music*. 2006.

Stanley, Burton. *Instrument Repair for the Music Teacher*. Van Nuys, CA: Alfred Publishing Co., Inc. 1978.

"Transposing Instruments." *The New Grove Dictionary of Music and Musicians*. 2nd ed. 2001.

"Trumpet." *The New Grove Dictionary of Music and Musicians*. 2nd ed. 2001.

*Vincent Bach*. Web. 25 July 2011. <http://www.bachbrass.com>

Werth, John. Personal interview. 24 July 2011.

Whitener, Scott. *A Complete Guide to Brass*. 2nd ed. New York: Schirmer Books, 1997.

*Woodwind & Brasswind, The*. Web. 24 July 2011. <http://www.wwbw.com>

# Image Sources

Pictures from the following websites were used in this project:

http://cdn.lightgalleries.net/
http://julianhopkins.net/
http://netipr.org/four8/
http://news.eastvillagers.org/
http://www.thehistoryblog.com/
http://orgs.usd.edu/
http://www.band-supplies.co.uk/
http://reunion.omnica.com/
http://static.music123.com/
http://www.dentonmusicstore.com/
http://static.musiciansfriend.com/
http://music4thesenses.com/
http://www.vectorlogo.org/
http://superbikesfim.webs.com/
http://upload.wikimedia.org/
http://portalcentralmusic.com.br/
http://msnbcmedia.msn.com/
http://www.ferozamusical.com/
http://www.photohome.com/
http://www.musicwithease.com/
http://www.mouthpieceexpress.com/
http://www.amazon.com/
http://www.wholelottawhimsy.com/
http://www.outils-pierre.com/
http://3mcollision.com/
http://www.jlsmithco.com
http://images.miretail.com/
http://michelsenmusic.com/
http://jazzoids.com/
https://blog.so-net.ne.jp/
http://www.canadianbrass365holidays.org/
http://i680.photobucket.com/

Can you see anything wrong here??