

# ***Applied Woodwind Techniques***

**Compiled by John Mastroianni**

**With sincerest thanks to Mark  
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Collins, Marilyn Krentzman,  
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Mamlok, and Becky Noreen**

# TIPS FOR STARTING BEGINNER FLUTISTS

## 1. BEGIN WITH HEAD JOINT ONLY (be sure to check cork for proper placement and adjust as needed.)

- Student holds head joint with thumbs and index fingers of each hand.
- Center the embouchure hole by rubbing it gently back and forth and looking in a mirror: **Don't use the "roll it in, then roll it down" method as it places edge of embouchure hole too high on lip for most people.**
- Be sure the inside edge of the embouchure hole is placed on the spot where the skin changes from chin to lip. (Should be able to speak freely without the flute bouncing around because lip is FREE and not pinned down) There is a "dent" in the chin/lower jaw. This is a perfect place for the lip plate to go-adjust from there.
- Placement should naturally have lip covering about 1/4 of embouchure hole. Hole should be parallel to the ceiling. (Flute Playing 101: cover less hole for lower notes and more for higher notes. "Coverage" is created by having a free bottom lip.)
- Start by asking the student to say MMMM and then Poooh. Ask them to try to begin the sounds like this at first in order to keep the lips in the proper shape and NOT in a smile-like "pulling" embouchure. Try small, short attacks at first. No "footballs."
- Add the tongue. Tongue moves HORIZONTALLY. Start with the tongue outside the lips, as if making a face. Pull the tongue back horizontally to release the air. Once mastered, place tongue on the top lip and draw back as if saying "thi" or "thuh." Do these attacks in a rhythmic pattern: X, X, X, rest etc.
- Move to holding notes out for two-four beats.
- Add octave slurs by blowing the low first, and adding right hand over end of head joint. Use RH index finger to play slide whistles and tunes-Mary Had a Little Lamb, etc.

## 2. MOVING ON TO THE FLUTE:

- (Option: Leave footjoint off.) Grasp barrel with RH to help stabilize the flute and review attacks, tonguing, etc.

- Add LH (while continuing to hold the barrel with RH for stability). L thumb should point up to ceiling and should be straight, not bent.

Play typical B-A-G exercises, tunes, etc. Add octaves. (optional: Then add harmonics.) Add C. Skip around. After mastered, THEN introduce RH.

- Add RH by placing fingers onto keys first and adding thumb AFTER placing fingers. (See later notes regarding thumb placement) Adjust footjoint for length of player's pinky finger.

## Key Points to Cover: Teaching Flute in Band Class

Everything is pretty symbiotic; one thing done poorly can drastically affect another. This is a pretty big reason why young players often have poor intonation. Careful attention to the basic points of playing can keep drastic intonation problems (and many other issues) at bay.

### ALIGNMENT

- Embouchure hole aligned with first key (not necessarily with the lines the manufacturer printed on the barrel!).
- Embouchure hole and keys are held parallel to the ceiling.
- Foot joint should be adjusted to individual pinky length but generally the “bar” on foot joint is about at the middle of the D key
- The head joint should be pulled out about 1/4” from barrel. Needing to adjust drastically one way or another during tuning means there is some other key element missing in the playing (or head joint cork could be out of place).
- \*\*For young students, making marks/dots with tape or nail polish on their flutes can help with consistent alignment.

### HAND POSITION

- LH “as if reaching for something.” Some students will bend wrist, others will hold it straighter. Flute rests on side of left index finger near crease where finger meets hand. Hand is turned toward flute slightly.
- LH thumb should be **facing up and down vertically** and straight, not bent.
- RH: Thumb should be placed on the flute in relation to how it hangs on hand naturally:
  - a. Use “coke can test” to find relation of thumb to fingers.
  - b. Note the thumb hangs naturally so that the pad of thumb is not flat to flute. So thumb is not placed on the flute with pad flat, as it will rotate entire hand to left! This will help avoid the “leaning fingers” syndrome.
  - c. Thumb should be under body or even behind the curve of the body, not sticking out.
- RH pinkie slightly curved and slightly to the outside of the pad/nail.
- \*\*For young students, placing a sticker or a Dr. Scholl’s corn pad on the flute can help with placement of right and left hands consistently in the same place.

### PLAYING POSTURE

One of the most commonly overlooked checkpoints. A flutist must play with upper body rotated and flute NOT parallel to shoulders. “Marching band” posture is a nightmare for flute players! An open posture can improve everything from sound to technique to intonation.

- If standing: stand one flute’s distance from stand. Feet shoulder width apart. **Upper body is rotated to point head, nose and left elbow 45° to the left of center.**

# Key Points to Cover: Teaching Flute in Band Class

(PLAYING POSTURE, CONTINUED:)

- If seated: **\*\*Chair is aligned 45° diagonally to music stand to allow upper body room for proper rotation.** In band situation, chairs should be set up so that chairs for stand partners are slightly facing one another, not lined up in a straight row.
- Helpful tool to find a more open posture: Stand against wall with shoulder blades touching. Push flute away from body with right arm and rotate head to left so that elbow is not pushing into the wall.
- There should be open space under armpits, and between arms and body.
- Chin is up in a natural position
- Flute should hang just a little bit below parallel to floor.
- **\*\*Be sure flute is not hanging so that flute and lips are not parallel. If flute tilts down, head should tilt along with it.**

## EMBOUCHURE

- Proper placement of embouchure hole **BELOW** bottom lip.
- Hole is naturally covered (by nature of placement) about 1/4".
- Corners of lips generally should look "natural" or turned down a bit, not pulled back and smiling
- Symmetry: many players do not have a perfectly centered embouchure, some due to tear drop lips, etc. This is OK. If teardrop is significant, try moving off-center to the left or right but to the left is usually better.

## TONGUING

- Tongue and lips are extremely symbiotic. Tonguing far back in mouth causes lips to pull back tighter. Tonguing forward (just behind teeth) helps support the flexible embouchure. Tonguing with a slightly "flat" tongue (laminal consonant rather than apical) can be even further supportive to a great embouchure.
- **\*\*Tonguing can drastically affect embouchure and intonation\*\***

### **Common issues in school-aged flutists:**

1. Tonguing/tongue position. Some students get away with not tonguing at all. Others get away with "tut" tonguing (ending the notes with the tongue rather than the air, especially when trying to play staccato). Tongue should only be used to begin the notes.
2. Hand position, especially RH thumb/fingers. See handouts.
3. Not using RH pinky key for all notes except for D in and below the staff!
4. Playing position. Marching band posture and lack of space in band rooms is deadly for flutists. See handouts.
5. Playing Eb/D in the staff with first finger down.
6. Playing upper octave with low octave fingerings
7. Using a tuner to fix issues that could be better fixed by simple changes in position/posture.
8. Using the "roll down" method of placing embouchure hole on lips.
9. Teaching kids that they need to blow hard for high notes and soft and relaxed for low notes. Along those lines, teaching kids to blow as if saying "Hoo" for low notes. Creates a huge aperture and not enough air pressure. Always use "birthday candle air" for all registers ("fffffff")

### **Troubleshooting:**

Players should play in as relaxed a way as possible.

If flutists need to move elbows or the flute around while changing to certain notes, hand position is poor.

Flutists with good hand and body position should be able to trill without having to realign the flute or shake the flute.

Flutists with smiling embouchures may be compensating for a flute placed much too high on lip.

Flutists who roll the flute in drastically may possibly have the flute placed too high on lip, and also faulty hand position.

Tear drop in top lip: move embouchure hole slightly to right or left.

Flutists who roll the flute out drastically may be compensating for faulty hand position or flute placed much too low under a very full lip.

## Flute Tips

Remember, blow across the mouthpiece.

The stream of air used to create a sound on the flute should be produced from an *embouchure* approximately the size of a drinking straw. Imagine that someone has placed a drinking straw between your lips - this loosely indicates the size of the airstream.

Some suggestions to get you started

*Try this with the headjoint only, at first.*

1. Press your lips together. Roll the lips inward, so that there is no pink showing. (Imagine a woman who is pressing her lipstick between her lips)
2. "Kiss your flute!" - place the *embouchure hole* completely against your pressed lips, so that you can feel the full circle around your mouth.
3. Unroll. Roll the flute away from your lips approximately 90 degrees, so that the *embouchure hole* is now level with the ceiling.
4. "Spit out a watermelon seed!" Imagine you have a small seed to spit out - this may assist you in finding a good *embouchure* shape. If you achieve a sound using this method, try adding a stream of air after your initial "spit".
5. Don't smile. Corners of your mouth down. Make a pouty face.

NO HAPPY FLUTE PLAYERS



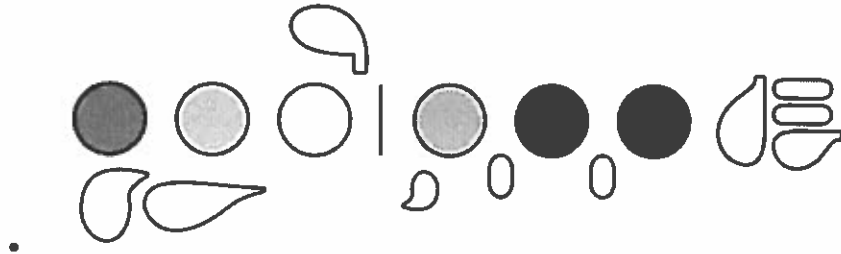
## FLUTE

### Flute Embouchure

- Start with headjoint only
- Have the kids hold the end of the flute where the cap is that leads to the cork and cover the open end with their right hand.
- Have students bring the headjoint to their bottom lip (under the lip) and start with a "pu" sound. Embouchure should be relaxed **NO TIGHT CORNERS**, do not smile and pull the lips back. I,
- Think of the word "perfect, or pure"
- If students are really struggling in a group setting have the students try the "kiss and roll down" technique so they can find their center. **But beware students will place the lip plate too high and it needs to be under the lip.**
  - Once students find their center have them try to place the headjoint down on their laps and then back up to their lip without the "kiss and roll down" and try to make a sound. Do this 10 times in a row and have students count how many times they were successful.
  - More headjoint games. Have students take their palm and cover and uncover the end of the headjoint so they can make different sounds. Have them turn the headjoint into a slide whistle and slide the right pointer finger in and out of the end of the headjoint. Or use the right index finger and play "Hot Cross Buns" on the headjoint by making a high, medium and low sound.
- Should students need extra help check out the pneumo pro (good to have a few on hand)
- Flute balance points, side of right hand thumb under the F key (NOT sticking out), right hand pinky, side of left hand third joint of pointer finger against the flute (some kids bump out this hand and don't make contact)
- . Never press the lip plate against the lip. You will get all sorts of weird posture from beginners because they are afraid they will drop it. Chin up, flute should **NEVER** rest on the shoulder. If student is too small they do make curved headjoints. **Position and posture is essential to all instruments, do not brush it aside for other things. Have kids check each other for position and posture.**
- Articulation, start this right away too on the headjoint. "Too, too" tip of the tongue hits the back of the top teeth, not thru the teeth.
  - Have the kids say out loud, "too, too" Make up a rhythmic pattern using "too, too." Kids echo out loud. Then have kids echo "too, too" without saying "too, too" More like whispering. The kids are blowing air and your listening for that articulation. Transfer it onto the headjoint.
- Have kids echo you on the headjoint. Sometimes it takes weeks to get the kids

articulating but please keep harping on it because after a year it's really hard to break a bad habit.

- I start with B, A, G (Hot Cross Buns, Mary Had a Little Lamb)
- Then add B-flat (Cold Cross Buns, Mark Lost her Lamb)
- Then add D, C (Wow this is tricky for beginners. Some kids this is the breaking point)
- Make games out of who can switch to D, C the fastest. Have kids write a little song switching from D, to C. Have students take turns and echo each other from D to C. Once they get this down sky is the limit.
- Then you could follow the traditional method book.
- I have made color coded fingering charts and placed stickers on flutes so the kids know where to place their fingers.



- Have students "shoulder flute". Flute headjoint against the left shoulder and foot joint goes on right thigh. Students place fingers down and move finger so they get used to switching keys.
- **Flute tone.** Long tones, long tones, long tones and more long tones. Work on switching octaves and changing the air speed.
- **Breath support.** The kids **WILL** get dizzy and light headed. They need to listen to their own bodies and stop when they get to this point. You don't need kids passing out. I have kids bring water to class and take a break when needed. Do breathing exercises. Have the kids track how long they can sustain a sound on the flute by timing them and write down the seconds and see if can last another second or two the following week.

## SAXOPHONE

- Step one is opening the case (really!) Students will open the case upside down if you do not show them how to do this correctly.



- Step two is to show the students how to handle the reed, avoiding touching the tip. Often, small children do not have great dexterity and will break reeds easily if they are not taught to be careful. Have the students put the reeds in their mouths to wet them. (This has a bonus value in that it prevents them from talking while you are teaching them to assemble the instruments.)
- Step three is to have them take out the neck and put on cork grease. New instruments will need to be greased every time for a while. The students will think the mouthpiece goes all the way on so you will need to show them how far to push the mouthpiece onto the cork.
- Step four is to show the students how to place their reeds on the mouthpieces. The best method is to place the ligature on and slide the reed between the mouthpiece and ligature. The students will try to put the reeds on at any angle you can imagine—upside down, backwards, etc. so this is obviously important.
- The next step is to have them make their first sounds. Before blowing on their instruments, I have the students blow into a straw. I do this on every instrument. It encourages them to not puff out their cheeks. Try it— it is almost impossible to puff your cheeks out. Additionally, this results in a faster air stream which translates into a better tone.
- Next, have them make sounds on the neck with the reed in place. You will need to work to make sure they do not have too much or too little mouthpiece in their mouths. Here is a link <https://www.youtube.com/watch?v=tqscMAp7lk>. You will really need to use your ear to help the students find the right spot. Model the correct an incorrect amounts and ask the students which sounds better.
- Have the students echo rhythmic patterns. Teach them to use their tongues right away. "Tip of the tongue at the tip of the reed."
- Next, the students will need to learn to use the neck straps. It is a good idea for them to get padded straps (not part of the beginner sax). The straps they come with are very uncomfortable for 9 and 10 year olds.
- Before they start to play, I always put a small piece of tape on the three keys they will need for Hot Cross Buns. This is just so they know what to press when they get home. Do not use stickers as they are hard to remove and the students will want to leave them on. I tell the students as soon as they know which keys to use, take the tape off.
- They will next need to learn how to hold the sax. Have the students make their hands into the shape of a "C". Show them the keys they will hit if they are not careful (palm keys and right side keys). This can be a major challenge for small hands-- especially if your students are 4th graders. It is critical that they learn to self diagnose as they will only be with you for 30 minutes each week.
- Start with the note "b". Play long notes watching for habits. Echo rhythmic patterns.
- Proceed to "a" and "g".

- Teach them "Hot Cross Buns"-- no music yet-- just by rote.
- This should be their "homework" for the first week.

## CLARINET

- Fasten your seat belts. Starting clarinet is very tough in the beginning. Believe it or not, in most cases, it will take your students the entire first lesson to learn to assemble their instruments.
- One tactic that can be helpful is to have older students come to that first lesson. Have one older child for each beginner. They can guide the students through the steps that you provide.
- Here is a good link on assembling the clarinet.  
[https://www.youtube.com/watch?v=fLkz2wLf6\\_0&t=279s](https://www.youtube.com/watch?v=fLkz2wLf6_0&t=279s)
- Show the students how to handle the reed, avoiding touching the tip. Often, small children do not have great dexterity and will break reeds easily if they are not taught to be careful. Have the students put the reeds in their mouths to wet them. (This has a bonus value in that it prevents them from talking while you are teaching them to assemble the instruments.)
- Before blowing on their instruments, I have the students blow into a straw. I do this on every instrument. It encourages them to not puff out their cheeks. Try it-- it is almost impossible to puff your cheeks out. Additionally, this results in a faster air stream which translates into a better tone.
- Once the clarinet is assembled, have the students remove the barrel and mouthpiece. Have the students make their first sounds with these while holding on with their left hands. This encourages "left hand on top".
- You will need to work to make sure they do not have too much or too little mouthpiece in their mouths.  
Here is a link to a decent video on this  
<https://www.youtube.com/watch?v=TEIxSabJ67c>  
You will really need to use your ear to help the students find the right spot. Model the correct an incorrect amounts and ask the students which sounds better.
- Have the students echo rhythmic patterns. Teach them to use their tongues right away. "Tip of the tongue at the tip of the reed."
- They will next need to learn how to hold the clarinet. Make sure they have their right thumb rests partly on their nails on the bottom of the clarinets. Have the students make their hands into the shape of a "C". Show them the keys they will hit if they are not careful (left g sharp key and right side keys). Covering the holes is a big challenge on clarinet. Have the students play in front of a mirror to help them see what they are doing. It is critical that they learn to self diagnose as they will only be with you for 30

minutes each week.

- Start with the note "e". Play long notes watching for habits. Echo rhythmic patterns.
- Proceed to "d" and "c".
- Teach them "Hot Cross Buns"-- no music yet-- just by rote.
- This should be their "homework" for the first week.

## Double Reed Embrochures

### Oboe

- 1) Soak reed
- 2) Lips perched as though you're whistling. If you can't whistle, imitate an Owl by saying "Who". In both cases, lips are together, in front of your teeth. Your chin is flat.
- 3) Invert the whistle, lips come in towards teeth and begin to cover your teeth.
- 4) "C" to "C". Put your lips (soft fleshy area) on the thread of the reed and blow. The note "C" sounds. Then put your lips (soft fleshy area) on the reed. The "C" should sound. Do this exercise until both notes sound "C".
- 5) Once that occurs, add the reed to the instrument, press the first key of both upper hand and lower hand, blow on the reed, and the note "C" will sound. 😊 Enjoy playing your oboe

### Bassoon

- 1) Soak reed
- 2) Hide a yawn. Your jaw drops and your lips create a round shape
- 3) Perch your lips to whistle a low note.
- 4) Place the reed on your lips to almost the first wire
- 5) Blow in reed. Should get a low "crow" or "caw" sound. It's kind of ugly. If you get no sound, there is not enough pressure on the reed. If your lips are too tight, you'll create a high sound, relax a bit. 😊 enjoy bassooning 😊

## Oboe and Bassoon Pedagogy Presented by John Mastroianni

### Oboe

- Instrument must be in optimum playing condition
- Good reeds are crucial (Jones reeds, Roger Miller reeds)
- “Peep” before you play
- Breathe, prepare, play
- Embouchure should be forward and down
- Oboe study should begin with the lower register pitches B, A, G, F#, E, D, and C.
- Breeze Easy Volume 1 is an excellent starting book. It introduces accidentals logically and progressively. Then move to Breeze Easy Volume 2, followed by the *Rubank Intermediate Method for Oboe*.
- For students switching to oboe from another instrument, *The Beginning Oboist* by Valerie Anderson is an excellent resource. It is recommended that students be at least in 7<sup>th</sup> grade to use this text.
- *Standard of Excellence* and *Accent on Achievement* are not the ideal choices of method books

### Bassoon

- Always “crow” first! This prepares your embouchure to play
- Seat strap should be forward on the chair
- Bassoon should be up; not on a diagonal
- Pay special attention to the bocal when assembling the bassoon. It can bend very easily.
- Whisper key and the pancake key are used to play low
- Bassoon study should begin with the pitches, F, E, D, C, B, A, G and F.
- *Weissenborn* book method will take you right through high school and beyond. *Rubank* is also excellent.
- Please make certain that your students have ample time to swab and pack up
- Always stand the instrument straight up. Never lie it down. Water will get into the tone holes.

### General Reed Care Tips

- Soak reeds for at least 5 minutes before playing.
- Use 320 or 400 grain sandpaper to balance a reed. Hold the reed up to the light and look for imperfections in the reed. Sandpaper is much easier to use than a reed knife.
- Store reeds in a case that is ventilated to avoid molding. **This is especially true for bassoon reeds!**

## **Double Reed Supply Companies**

### **Jones Double Reed**

303 E. Pacific Ave.

Spokane, WA 99202

\*\*\*They have great beginner videos on how to adjust reeds\*\*\*

### **Miller Double Reed**

(800) 323-3216

[www.millerdoublereed.com](http://www.millerdoublereed.com)

### **Woodwind and Brasswind**

(800) 348-5003

[www.wwbw.com](http://www.wwbw.com)

## OBOE/EH SUPPLIES

**Hodgeproductsinc.com (Hodge Products) 1-434-361-1945**

Reeds – all of these are easy to blow

Laura Karney - medium \$21.00

\*North Texas Deluxe Intermediate – medium soft \$22.00

HB – medium \$23.00

Reed Cases:

2 Reed Slimline Wood Oboe Reed Case - \$12.50

3 Reed Slimline Wood Oboe Reed Case – \$20.00

3 Reed plastic oboe reed case - \$14.00

**Webreeds.com (Weber Reeds) 1-877-932-7332 or info@webreeds.com**

Professional oboe reed “New Agave” Pro- \$24.95 a little harder to blow

Eng. Horn “Sonoran Pro” \$24.95

# Bassoon Resources

**The following resources may be very useful for aspiring instrumental music teachers.**

## **Bassoon Supply Companies:**

Jim sells Fox bassoons and is close enough to go and try out, he is also a repairperson

Jim Kirker

56 Davison St.

Hyde Park, MA

(617) 364-1346

<http://www.kirkerbassoonrepair.com/index.html>

Fox Products Corporation

PO Box 347

South Whitley, IN 46787

(260) 723-4888

[www.foxproducts.com](http://www.foxproducts.com)

Wichita Band Instrument

2525 E. Douglas

Wichita, KS 67211

1(800) 835-3006

[www.wichitaband.com](http://www.wichitaband.com)

Woodwind and Brasswind

1 (800) 348-5003

[www.wwbw.com](http://www.wwbw.com)

Frederic H. Weiner

<http://shop.weinermusic.com/searchprods.asp>

Miller Double Reed

800-323-3216

[www.millerdoublereed.com](http://www.millerdoublereed.com)

Charles Double Reed Comp.

65 Seavey Street

PO Box 2120

North Conway, NH 03860

[www.charlesmusic.com](http://www.charlesmusic.com)

Forrests



1849 University Ave.  
Berkeley, CA 94703  
1(800) 322-6263  
[www.forrestsmusic.com](http://www.forrestsmusic.com)

R. D. Gilbert  
589 Larchmont, 2<sup>nd</sup> floor  
Los Angeles, CA 90004  
(323) 463-4930  
[www.rdgwoodwinds.com](http://www.rdgwoodwinds.com)

## **Bassoon Reed Supply Companies:**

Bel Canto Reeds  
[http://www.belcantoreeds.com/order\\_page.html](http://www.belcantoreeds.com/order_page.html)

Arundo Reeds and Cane  
18082 N.W. Dixie Mt. Rd.  
North Plains, OR 97133  
(503) 647-0958  
<http://home.earthlink.net/~arundo/>

Jones Double Reed  
303 E. Pacific Ave  
Spokane, WA 99202  
<http://www.jonesdoublereed.com/basson-and-eh.html>  
Have good beginner videos on how to adjust reeds  
[https://www.youtube.com/watch?v=Ctqw5G\\_g6k8&list=PLUoJshubtlytYHuaCWt\\_HxaLe10vkiirW](https://www.youtube.com/watch?v=Ctqw5G_g6k8&list=PLUoJshubtlytYHuaCWt_HxaLe10vkiirW)

Miller Double Reed  
800-323-3216  
[www.millerdoublereed.com](http://www.millerdoublereed.com)

Charles Double Reed Comp.  
65 Seavey Street  
PO Box 2120  
North Conway, NH 03860  
[www.charlesmusic.com](http://www.charlesmusic.com)

Christlieb Products  
3311 Scadlock Lane  
Sherman Oaks, CA 91403  
[www.christliebproducts.com](http://www.christliebproducts.com)

Edmund Nielsen Woodwind Inst. Service  
<https://www.nielsen-woodwinds.com/en/>

Forrests  
1849 University Ave.  
Berkeley, CA 94703  
1(800) 322-6263  
[www.forrestsmusic.com](http://www.forrestsmusic.com)

R. D. Gilbert  
589 Larchmont, 2<sup>nd</sup> floor  
Los Angeles, CA 90004  
(323) 463-4930  
[www.rdgwoodwinds.com](http://www.rdgwoodwinds.com)

Frederic H. Weiner  
[www.weinermusic.com](http://www.weinermusic.com)

## **Bassoon Music:**

Eble Music  
[www.eble.com](http://www.eble.com)

Gail Warnaar Double Reed Shop  
PO Box 150  
Barnet, VT 05819  
(802) 633-4016  
[www.doublereedshop.com](http://www.doublereedshop.com)

TrevCo Music  
PO Box 4  
Tallevast, FL 34270  
(941) 907-6944  
<https://www.trevcomusic.com>

## **Some very good Bassoon websites:**

[www.Bassoon.org](http://www.Bassoon.org)  
All kinds of resources and lists

Barrick Stees website:  
<https://www.steesbassoon.com>  
Go to Teaching>reedmaking equipment

Peter Simpson's Bassoon Studio website:

[http://www.uky.edu/~pcsimp01/Bassoon\\_Studio/index.php](http://www.uky.edu/~pcsimp01/Bassoon_Studio/index.php)

International Double Reed Society  
[www.idrs.org](http://www.idrs.org)

Free Sheet Music for Bassoon  
[www.fagotizm.narod.ru/library-eng.htm](http://www.fagotizm.narod.ru/library-eng.htm)

### **Local bassoon repairpersons:**

Carl Chudy  
Lord's Point, Stonington CT  
(860) 535-4245  
Cell (860) 535-3908

Jim Kirker  
56 Davison St.  
Hyde Park, MA  
(617) 364-1346  
<http://www.kirkerbassoonrepair.com/index.html>

For repairing bent bassoon bocals:  
Pope Instrument Repair  
80 Wenham St  
Jamaica Plain, MA 02130  
<http://poperepair.com>