



Coe Percussion
5.0 Octave Concert Marimba
Owner's Manual

Aluminum/Wood Hybrid Height Adjustable Frame

Setup, Tear-down, Transportation, and Height Adjustment

Step 1. The End-frames

Start with the two end-frame pieces and the rectangular center-supporting post. The center support is marked with a "H" for high, and "L" for lower. The H matches with the upper (small) high end-frame, the L with the low (large) end-frame. Next, slide the center support post over the male end of one of the end-frames. Slide the diagonal supports down over the posts on the end-frame that have the knurled black-plastic handles. You may need to push or pull at the top of the end-frame to get the supports to align properly. Secure the plastic handles as tight as possible, then secure the knurled black plastic handle on the center support post. Move on to the opposite end-frame following the same procedure.

Step 2. The Bar support Rails

Now move on to the bar support rails. Begin with the inner-most rail marked "3". Rails are marked on the inside portion of the rail at the hinged section, and on either end. The end which points towards the lower end-frame is marked with an "L" on the end as well, and the end which points to the upper end-frame is marked with an "H". Rail #3 holds the inner portion of the chromatic (sharps/flats) keys. (The portion closest to the player.) You may need to move the height adjustment handle out of the way in order to install rails #3 and also #2.

Connect the rail as evenly as possible to both end-frame pegs, begin with THE LARGE LOW END-FRAME FIRST and while **supporting the rail at all times**, move to the upper high end-frame. You may need to push outward on the upper end-frame piece slightly with one hand to connect this first bar support rail. Once the rail is resting on the pegs, press down evenly so as not to let one side down further than the other. Slide the rail as far down as it will go, until it locks into position. Check the low end-frame piece where it attaches to the rail to be sure the rail is locked down completely.

Now move to the bar support rail marked "2". This is the rail which holds the innermost portion of the natural keys. (The portion furthest from the player) Assemble in the exact same fashion as rail #3 that you just put on the instrument.

Next attach the "Z" shaped support brace that connects between rails #2 and #3. The "Z" brace is marked with numbers that correspond to the rail that it connects to for the proper orientation. This brace can be adjusted if necessary to adjust the overlap of the sharp bars with the naturals.

Now move to the rail marked "1". This is the rail closest to the player. Assemble in the exact same fashion as the previous rails.

Finally move to the rail marked "4". This is the rail furthest from the player and has the logo plates facing the audience. Assemble as before.

Step 3. Resonator Assembly

Begin with the LOW END first, either the chromatic set (has less tubes than the natural bank and tubes which have no caps in the 'fake' tubes) or the natural set of resonators. The lowest section of tubes (which have the 'bends') can only be assembled by inserting them on to the instrument from the bottom. Rest the end of the resonators on the ground with the portion that fits into the low end-frame facing the ground. Slide the tubes under the frame and lift them into place. There are pins that fit into the tubes located on each bar rail. Be sure the pins are fit securely to the resonators. DO NOT FORCE! All parts should slide together without much effort.

Lift the second section of resonators over the top of the bar rails and slide the bank down into position. Do not attempt to assemble this portion of resonators by sliding them up through the bottom of the instrument as they will not fit through the frame.

Assemble the upper bank of resonators in this same fashion.

Step 4. Bars (final step)

Begin with the Natural set of bars and roll out onto the keybeds. Attach string to end posts and fit each bar accordingly. The spring tension should be moderate, not tight.

Next assemble the sharps/flats and you are ready to play!

Tear-Down

Begin with the Sharp/Flat set of bars, and roll them up in a sheet. Next do the same with the natural bar set. It is a good idea to tie a cord around the “rolled up” bars to keep them from unrolling during transport. Take care to not roll up the spring assembly on the bar cord to where it will come in contact with the bars.

Remove the upper sections of the resonator banks first by lifting them out of the instrument. Then remove the middle banks in the same fashion.

The lowest section of resonator tubes can only be removed by first lifting up (to remove them from the securing pins) and then bringing them down through the bottom of the instrument.

Next, check the height adjustment handles and move them to a position that will not interfere with the removal of the bar rails. Remove bar support rail #1 first. Be sure to lift the rail out of the instrument evenly. DO NOT FORCE ONE SIDE OUT BEFORE THE OTHER OR SEVERE DAMAGE COULD RESULT. *It is best to have another person help with the removal of the rails.* Before you move on to Rail #2, ***REMEMBER TO REMOVE THE STABILIZING CONNECTING “Z-SHAPED” BRACKET WHICH IS CONNECTED BETWEEN RAILS #2 AND #3.*** Finally, remove rails #3 and #4. We have found this to be the easiest order of removal to prevent damage and for ease of disassembly.

Next remove the diagonal supports for the center support bar. Loosen at the end-frame and slide the supports up. You do not need to remove the black knurled handle from the end-frame.

All pieces fold in half for ease of transport. With practice it will only take 10 minutes or less to completely disassemble the instrument.

Transportation

We recommend following the procedure above, and disassembling the entire instrument when transporting. Wrap all frame parts in sheets, moving blankets or bubble-wrap. Keep out of rain and drastic temperature changes when moving the instrument. Never store the instrument anywhere with extremely high humidity or any place that is not climate-controlled 24hrs a day.

Height Adjustment

Adjust the playing height of the instrument by simply turning the black crank handles located on the top center of each end-frame. The handles have two unique features. You can fold the spinning top portion of the handle down by pulling up at the base of the upper spinning portion and then folding it over. You can also adjust the position of the entire handle without actually adjusting the height of the instrument by lifting up at the base of the entire handle and rotating it in any direction, to any desired position. Finally if necessary you can remove the entire handle from the instrument by simply removing the slotted screw at the top of the base of the handle...but be careful, there is a spring in there that also needs to be removed.

There is a height adjustment scale located on the frame support opposite of the player on the inside section of the frame next to the threaded rod that adjusts the instrument height.

You should lubricate the threaded height adjustment rod once or twice a year lightly with graphite, or with 3-in-1 oil. You can get this at any hardware store.

Care and Maintenance

Do NOT use any petroleum based products to clean any part of the instrument. Windex, or any type of 'spray-on' car wax works well to clean the resonators. Use mild dish soap (sparingly) and warm water on a damp cloth to clean the frame parts. **No water should come in contact with the bars at any time.**

The resonators have a 'powder-coat' finish that is extremely durable. This finish should last at least 20 years if cared for properly. This is NOT a lacquer finish that is typically found on brass band instruments, rather it is used in the marine and automotive industry where a tougher-than-lacquer finish is required. However, in the event that the finish does require a touch-up we recommend that you remove the particular resonator tube by disassembling the bolts and nuts that hold it to the connecting aluminum strips and send it back to our facility for us to do the work properly. Call or email us with any questions. **Aluminum is a soft and malleable non-ferrous metal. It can dent easily, especially in the curved welded sections on the lowest tubes. Use great care whenever you transport the resonators and/or remove them from the instrument as to not rest the tubing on any portion of the 'bent' welded joints.**

The rosewood tone bars should be dusted off with a soft, clean, dry cloth monthly (or more frequently), and oiled once every three to six months with Lemon Oil. You can purchase this at almost any hardware store such as Lowe's or Home Depot, and others. We use Formby's brand and it has always performed well. Follow the directions on the back of the bottle and use sparingly.

Do not place or store the instrument directly under any air-conditioning vents, or in a place where it comes in contact with direct sunlight on a regular basis. Drastic changes in temperature will shorten the marimba's life span and require much more frequent re-tuning. Try to keep the instrument in a constant room temperature. (about 68-74 degrees farenheight and 50% relative humidity or less) Always store the instrument in a climate-controlled room even when not in use. Keep a cover on the instrument at all times when not in use. Since the instrument is covered the majority of its life, the lighter weight the cover is, the better.

For ANY other maintenance problems or questions please contact us at (850)228-6960 or visit our web-site at <http://www.coepercussion.com>. Be safe rather than sorry, it is very easy to contact us.

****We recommend you send us the bars for re-tuning once every two to four years. Padouk bars require more frequent re-tuning and checking than Rosewood bars.**

Tune-able Resonator Instructions

Step 1. It is not always necessary to loosen the plastic or metal wing nut underneath the cap in order to move the caps. If the cap does not move by pushing up on the wing nut, or by pushing down with a stick from inside the resonator tube, then loosen the wing nut. Usually you will only need to turn the wing nut $\frac{1}{2}$ or 1 turn, occasionally more than 1 turn. **Do not attempt to remove the wing nut completely, as it is very difficult to re-assemble once the wing nut is removed.** After loosening the wing nut, It may help to push up on the plastic or metal wing nut slightly at first, to disengage the O-Ring that is at the upper portion of the cap and is responsible for the complete sealing of the tube. If the cap has not been moved in some time it will most likely require you to use a rod through the resonator tube to push down on the cap to dislodge it. The caps are very strong and durable and you can use a generous amount of pressure to dislodge them.

Step 2. We have found it is easiest to move the cap in the tube up above where it needs to be, and then tighten the wing nut enough to hear the resonance in the tube while tapping the bar above. (To move the cap up, It helps to use your thumb and first two fingers on the bottom of the cap nearest to the wall of the tube while pressing upwards.)

Step 3. With the cap still in this somewhat snug position, pull down on the wing nut and move the cap downward, while tapping the bar above, until you hear the resonator at its fullest sound...then tighten the wing nut the rest of the way.

You can adjust both volume and sustain by moving the caps. In general, if the cap is slightly higher than its ideal position, you will lose volume and sustain. If the cap is slightly lower, you will lose volume of the fundamental pitch, but gain sustain. This setting is typically the most suitable for marimbas, but obviously it depends on your personal choice and the particular musical setting in which the instrument is used. This second setting is how we adjust the caps at our facility for marimbas and that is how the instrument will be delivered to you.

When the caps are in the mathematically correct position (as notated on the cap distance page) you typically get a good volume on the initial attack, but a less than desirable sustain quality.

*We purposely make the caps to fit in the tube "snugly" even when the wing nuts are completely loose. Resonator caps will not do their job if they do not seal the tube **COMPLETELY**. Therefore, we feel it more important to have the caps err on the tight side. Consequently, as mentioned, you may need to use a small stick to dislodge the caps if they have not been adjusted in the recent past. It takes time to get used to the 'feel' for adjusting the caps.*

If you have any questions feel free to visit our web-site at <http://www.coepercussion.com>. You will find several options for contacting us there. If you do not have internet access, or prefer to contact us by phone, call (850)228-6960.

Warranty

Concert Series instruments have a one-year warranty against defects in materials or workmanship on the frame, resonators, and all hardware. The Honduras Rosewood bars are also warranted for one-year. In addition, we offer free replacement of any bar during this first year, and free re-tuning of the bars during the first two years. (Shipping from your location to Tallahassee is your only responsibility. We also ask on bar replacements that you send us back the bar you are having replaced.)

In addition to transit time, please allow two weeks for re-tuning, and two to three weeks for replacement bars. International customers may have longer wait times due to longer transit.

Contacting COE PERCUSSION

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Addendum

DO NOT ADJUST RESONATOR TUNING CAPS UNTIL INSTRUMENT HAS SAT IN ITS NEW ENVIRONMENT FOR AT LEAST 24 HOURS. IT NEEDS TIME TO ACCLIMATE TO NEW CLIMATE.

Z-SHAPED FRAME BRACKET IS IN BAG WITH BAR RAILS #3 AND #4. (see owner's manual)