Precision Reed Products
Reedual™ Operating Manual

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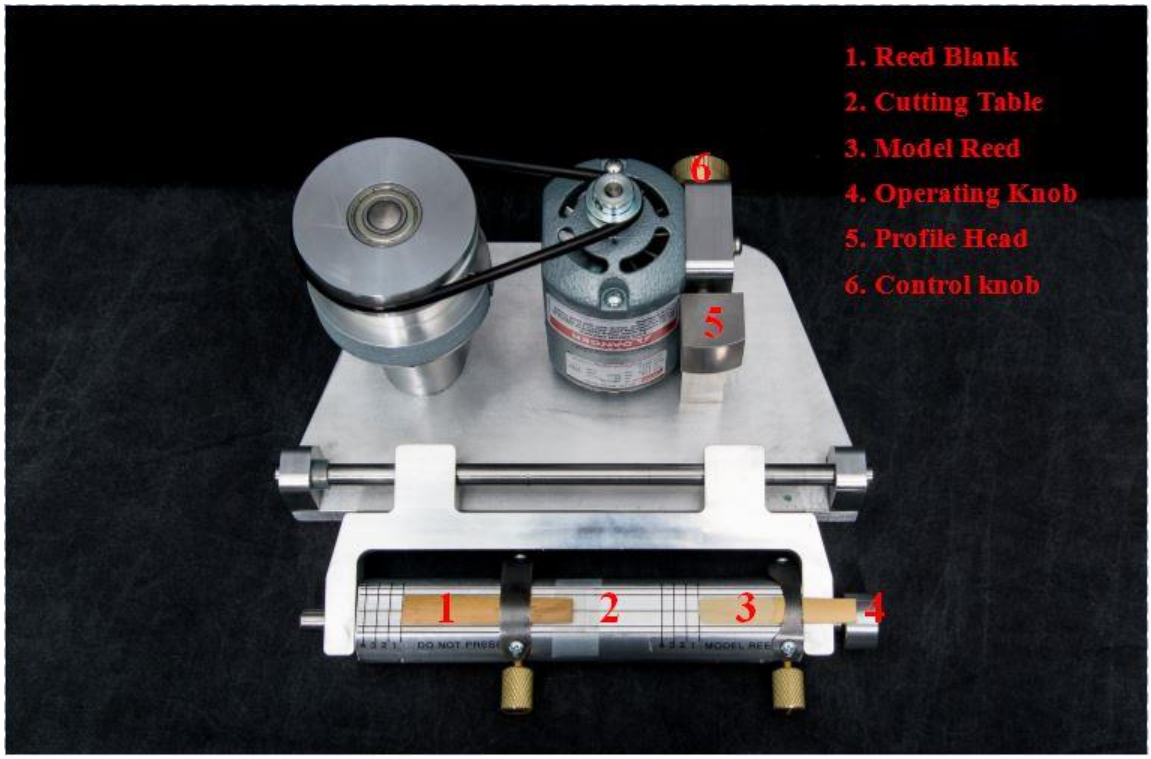
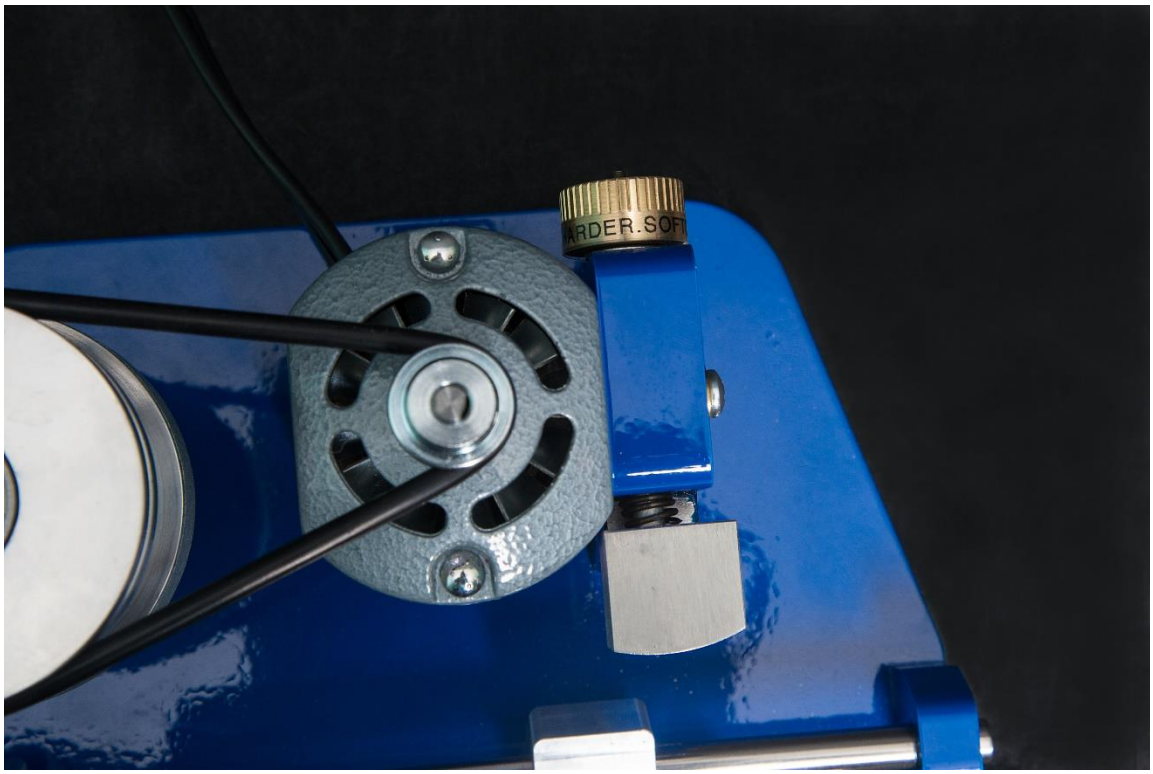
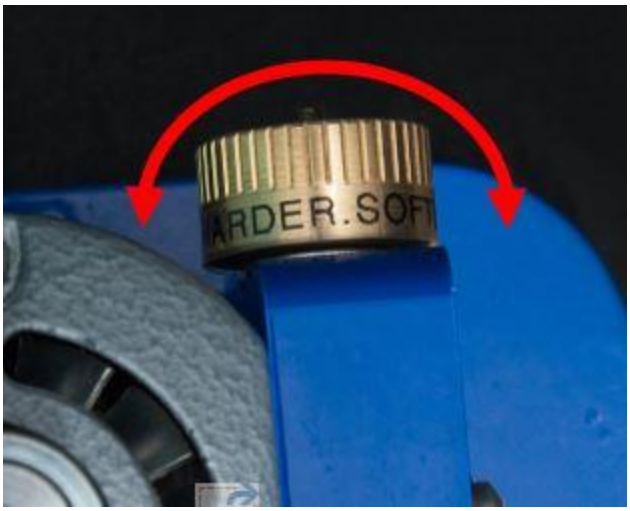
Labeled Diagram of Reedual Parts



Full View



Motor and Control Knob Zoom



Control Knob Rotation


Motor Oiling Hole

The Model Reed

Select a reed that has your ideal shape and profile. It should play well now or once played well. Old reeds that were once excellent are a good source for model reeds.

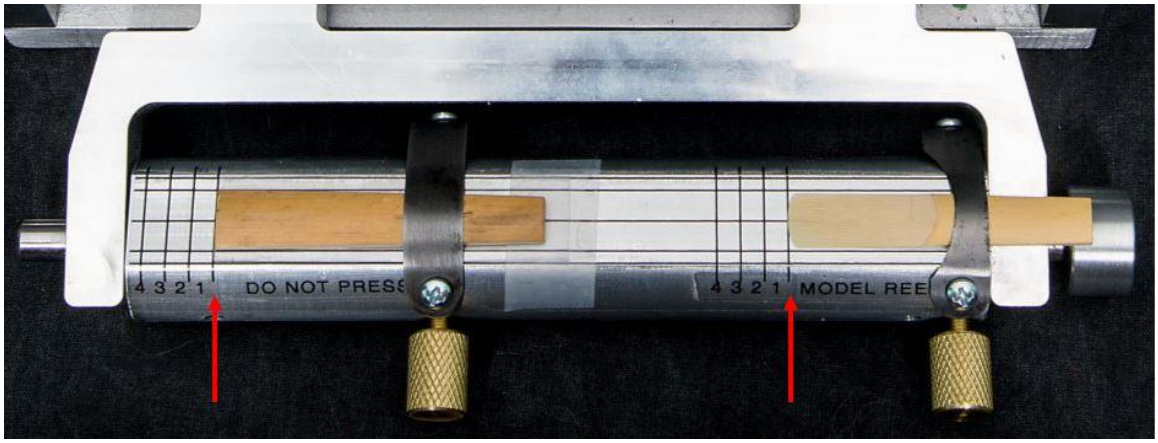
Place the model reed on the right side of the cutting table of your Reedual, with the tip aligned with the proper line. Be sure the model reed is centered and straight, using the center line as a reference. Tighten only by hand.

Bb clarinet, Eb clarinet, soprano sax .....line 1
Alto sax.....line 2
Bass clarinet, tenor sax .....line 3
Contra bass clarinet, baritone sax .....line 4

Operating the Arm

Lift the arm until the model reed touches the profile head, then slide the arm back and forth. Rotate the operating knob and repeat this process, feeling the shape of the model reed. Be sure the cutting table returns to square as the profile head reaches the tip of the model reed. Use the operating knob with your right hand only, and use no pressure on the reed.

The Reed Blank or Reed Being Cut



Place the reed to be cut (reed blank) on the left side of the cutting table, aligning the tip of the reed on the same numbered line as the model reed. Be sure the reed to be cut is centered and straight, using the center line as a reference. Tighten by hand only.

Press down gently on the tip of the reed to be cut (towards the flat side), it must be seated snugly against the cutting table. If the tip rises above the cutting table, the reed will be made too thin. If it is not seated correctly, remove the reed to be cut and bend the tip down gently and check again.

NOTE: A clear plastic strip has been fastened to the left side of the cutting table. It is essential that this plastic shield always be used under the reed to protect the cutting table. Be sure the plastic shield is aligned exactly with the appropriately numbered line, directly under the tip of the reed to be cut (with no overhang).

For subsequent reeds, be sure there is no residual reed dust under the plastic strip, or the reed will be cut too soft.

The Control Knob

Your Reedual has been shipped with the control knob in the "neutral" position. I have made at least three reeds on your machine using the Norton "Pro Sand" 220-grit sandpaper strips, and at this position it should provide an accurate copy of your model. Some adjustments using the control knob are usually necessary to accommodate individual variances in cane density. Adjust the control knob gradually to make your reed "harder" or "softer", about 1-2 lines at a time, until the Reedual produces reeds that are the correct resistance for you. Please see "Reedual for Dummies" for a recommended procedure for making reeds from blanks.

Operating the Reedual

Turn the motor on and bring the cutting table up until the reed to be cut meets the cutting wheel. Begin slowly sliding the cutting table from left to right. Repeat the process, rotating the cutting table toward and away from you. Continue this sliding and rotating motion until the entire surface of the reed has been cut. An experienced operator will cut a new reed in about 20 seconds, but a new user will require more time, so please be patient.

Do not use any pressure as you operate the Reedual. Let the weight of the cutting table do the work. Use your right hand only.

If you used a reed blank, clip the reed. Soak the reed in water for a few seconds and try it. If the reed is too soft, you will need to move the Control Knob a notch or two toward "harder" for your next attempt. If your reed is too hard, move the Control Knob a notch or two toward "softer" and cut it again.

- If your reed is just a little too hard, put the reed back on the Reedual and cut it again at the same setting. Soaking the reed in water for a few seconds causes the reed to swell, and usually another cut at the same setting will be sufficient.

Replacing the Sandpaper

Your Reedual has been calibrated to use Norton "Pro Sand" 220-grit sandpaper.

Several strips of this sandpaper have been included with your Reedual. This sandpaper is available at Home Depot and online. When making your own replacement sanding strips, pay careful attention to the correct length. Strips approximately the width of the cutting wheel will work fine.

Leave the belt on when changing the sanding strips for stability. Remove the worn sanding strip by pulling out the leather wedge. Fold over each end of the new sanding strip, making "tabs" about ¼ inch long, then tuck the two tabs into the notch in the

cutting wheel. Stretch the sanding strip very tight, and hold the ends securely with your non-dominant thumb. With your dominant hand, push the leather wedge into the notch, beginning at the top end. Secure the leather wedge into the notch with a flat screwdriver, making sure that the entire leather wedge is pushed below the level of the sandpaper.

- Be sure the sanding strip is secure and tight on the sanding wheel. Excess movement will loosen the sanding strip during operation of the Reedual.
- Each sanding strip should last for 4-5 reed blanks, or for many more hand-finished or commercial reeds.
- If you use sandpaper other than Norton Pro Sand 220-grit, it may work well, but will almost certainly require a re-calibration of the Control Knob.
- Watch the video by Dr. Amy McCann on our website http://www.precisionreedproducts.com

Care and Maintenance

It is most important that you avoid getting reed dust on the Reedual, and especially, in the motor. A vacuum cleaner is an essential tool to vacuum the reed dust that results from cutting reeds. I recommend the vacuum base for convenience, but you can also just hold a vacuum cleaner hose in your left hand while operating the Reedual with your right hand only.

Keep the stainless-steel rod that the arm slides on clean and well-lubricated, and put a drop or two of light oil on the rods that secure the cutting table. On the top of the motor, just in front of the small pulley, there is a hole for lubrication. Put a couple drops of light oil into this hole.

BE SURE not to drop the Reedual. It is a delicate and finely-adjusted machine, and a sharp blow could easily knock it out of alignment.

Other than keeping your Reedual clean, dust-free, and well-lubricated, there is no other maintenance required. Your Reedual should give you many years of dependable use.

Reedual for Dummies

by John Weigand
Precision Reed Products

This is the method for making reeds from reed blanks that I have used for over 40 years. If you do not have much experience making reeds, or if you have not been successful, I suggest you give this a try.

Curing

- Soak reed blanks in water in a shallow container, flat side down, for 18-24 hours. Shake off excess water, and let dry flat side up for 24 hours.

- For the next 7-10 days, twice a day, soak blanks for one minute, and let dry flat side up.

Sanding

- Secure a sheet of 220-grit sandpaper to a piece of plate glass with spray adhesive.

- Sand each blank perfectly flat on both axes and on both sides.

- Repeat, using 400-grit wet-or-dry (black) sandpaper. The back of the blank must be perfectly flat.

- Lightly polish using the back of the wet-or-dry paper, and be sure the entire back of the blank is shiny. If there is a dull-looking spot, that will result in a thin place on the finished reed.

First Cut

- Set the Reedual Control Knob at approximately the center-point.

- Be sure that the tip of the blank is perfectly seated against the machine.

- Make the preliminary cut. The vamp should be the length of the mouthpiece window (for Bb clarinet, 1 ¼").

Second Cut

- Clip the tip of the reed.

- Soak for about 20 seconds in water and test play. The reed should produce a sound, but may be quite hard.

- Replace the reed on the Reedual, and perform the second cut, at the same setting.

- The reed should now be the correct resistance, needing only some slight balancing. Be sure to check the balance of the tip and the heart of the reed.

- Some experimentation may call for a slight adjustment in the setting of the Reedual.

Third Cut

- Once you have what you believe to be the correct setting on the Reedual and you encounter an occasional hard reed, DO NOT adjust the setting, simply perform another cut. This is sometimes done the next day if the reed gets harder overnight from absorbing moisture.

- If the reed is still too hard, sand the entire reed (except the tip) on a glass plate with a small piece of sandpaper.

Sandpaper

- This brand and type of sandpaper should last for several reeds. When cutting becomes slower, or the reeds come out harder, it is time to replace the sanding strip.