

## Thank You for Purchasing Optimal Air

This system has been developed over my 27 year career as a dental assistant and lab tech treating obstructive sleep apnea. It was designed specifically with the needs of the dental assistant and lab in mind, to provide the easiest and most accurate system for determining therapeutic bite set for optimal airflow.



*Stan Jones*  
DENTAL SLEEP GODFATHER

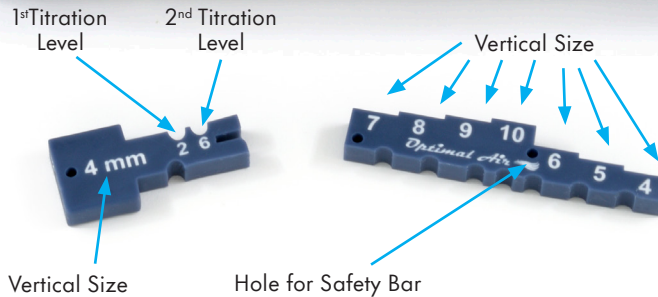
## Included in Optimal Air System

- 1 Vertical Gauge
- 28 Horizontal Adjustment Keys
- 1 Stainless Steel Rod



### Horizontal Adjustment Keys

Each set of 4 keys can advance the mandible from E (Edge to Edge) to 7mm in 1mm increments. Keys are arranged to be used left to right, beginning with E-3mm, then repeating the process on the second position for 4-7mm.



### Vertical Gauge

The Vertical Gauge has positions from 4mm-10mm in 1mm increments. Conveniently labeled on both sides.

## Integrated Safety System

The Vertical Gauge and each of the Horizontal Adjustment Keys has a hole for the integrated safety system. Fit the enclosed stainless steel rod through the hole before positioning on the patient's teeth. The bar will prevent the Vertical Gauge or any of the Horizontal Adjustment Keys from falling into the patient's mouth. Dental floss may be used in place of the stainless steel rod. The rod is conveniently stored on the side of the case below the vertical gauge.



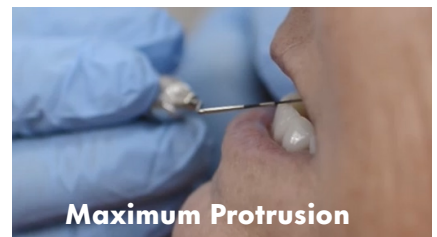
## Preparation – Items Needed

- Optimal Air system
- Periodontal probe or Range of Motion Card
- Nose cone or nasal dilator
- Dental floss



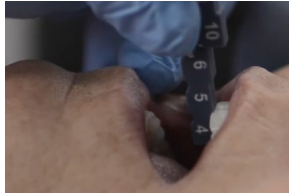
## Overjet and Maximum Protrusion

1. With a periodontal probe or Range of Motion card, measure the patient's overjet. Have the patient make their normal occlusal bite, then measure the distance from the incisal edge of 8 or 9 to the labial surface of 24 & 25.
2. With a periodontal probe or Range of Motion card, measure the patient's maximum protrusion of the mandible. Have the patient bring their central incisors from edge to edge. Then ask the patient to protrude or extend the mandible as far forward as the patient can. With a periodontal probe or Range of Motion card, measure the distance from the facial of teeth #8 and #9, to the lingual of teeth #24 and #25. Record the number where you can refer to it as you set the patient's bite set with the Optimal Air system.
3. **The Rule of 4 & 5:** If the patient's maximum protrusion is 4 mm or less, vertical set measurement with the Optimal Air needs to be as close as possible. If the patient's maximum protrusion is 5 mm or greater, the vertical set measurement is not as critical of a measurement because the patient has enough horizontal range to set the patient's bite set.



## Bite Set Procedure

1. Explain to the patient the procedure and why you are performing the procedure.
2. Have the patient sit up as straight as the patient can to 90 degrees (mandible level with the floor).
3. Ask the patient to try and make a snore noise by slightly opening their mouth.
4. Ask the patient if their snoring noise is coming from their nasal passages (upper airway) or their throat (lower airway).
5. This can be accomplished by clamping or pinching the patient's nose at the base and asking them to make a snoring noise. Listen carefully to note if the snoring noise is less in sound and tone. You may need to do this several times to notice if a lower snore sound and tone is heard. If the snore noise is lower, place your finger at the base of the right nostril and clamp it shut. Ask the patient to breathe through their nose only in and out twice. Switch to the left nostril and repeat. Ask the patient if one side of their nasal passages was more restricted when they breathed than the other. You will need to use a nasal dilator to help them breathe clearer while using Optimal Air.
6. If the patient cannot make a snoring noise, listen for air flow, and air turbulence in the lower airway. Observe the patient to see how hard it is for the patient to try to make a snoring noise. It will become harder for the patient to make a snoring noise as progressing through the measurements. Your goal is to greatly diminish or eliminate the snoring noise or air turbulence sound.
7. Lay the patient back in the chair so that they are lying flat, and their face is parallel to the floor. Raise the chair so you are able to see across the patient's face as evenly as possible while sitting in a clinical chair.
8. Take the vertical gauge from the Optimal Air system case. Explain to the patient that you will be having the patient bite on the various steps of the gauge and try to make a snoring noise when you ask them to.
9. Determine which size nasal dilator the patient will need. Slowly and gently place the cone or dilator in the patient's nasal openings. When you reach resistance, stop, & ask the patient to finish inserting the cone or dilator as far as the patient comfortably can.



**Slide Vertical Gauge to Facial of 8&9**



**Bring Mandible Up**



**Slide Into Notch**

10. Start with the 4 mm step first. Have the patient open the patient's mouth and place the 4 mm step on the vertical gauge between teeth #8 and #9. Make sure that step edge rests on the facial of these teeth. Then have the patient slowly bite down as you guide teeth #24 and #25 in the oval notch at the bottom of the 4 mm step on the vertical gauge.
11. Ask the patient to make a snoring noise. Listen for a reduction of the snoring noise and a greater airflow. If the patient cannot make a snoring noise, listen for air turbulence reduction, and observe if it is harder for them to attempt to make the snoring noise.
12. Have the patient open their mouth and remove the vertical gauge. After taking a measurement, ask the patient to swallow and relax. Ask how the patient feels and if the patient is experiencing any pressure or discomfort
13. Repeat steps 10 through 12 for steps 5 mm through 9 mm. Note any changes in the sound of the snoring noise, air turbulence, and how hard it is for the patient to attempt to make the snore noise.
14. When you have reduced the snoring noise or air turbulence the best you can, stop at that step and record the measurement as your vertical set. Example: vertical set = 6 mm.



15. Now that you have the vertical set measurement, go to the Optimal Air system case, and choose the first horizontal key that corresponds to the vertical measurement, and start with "E" (edge to edge). Example: vertical set measurement = 6 mm. Go to the 6 mm horizontal keys and choose the 6/E key.
16. Have the patient open their mouth and place the "E" notch on or between teeth #8 and #9. Have the patient bite down slowly. Guide teeth #24 & #25 or between them into the notch on the bottom of the horizontal key.
17. Have the patient make a snoring noise and listen for the sound level of the snore or air turbulence. Note if this was better or worse.
18. Have the patient open and remove the horizontal key. Choose the 6 mm 1 horizontal key (Example: 6/1). Repeat steps 16 and 17, but this time have the patient bite into the upper notch labeled "1" with teeth #24 or #25 or between them. Again, listen to see if the snoring noise or air turbulence is better or the same. Continue to the next notch until you get the lowest snore noise or turbulence you can. Once you have eliminated or reduced to lowest the snore sound and air turbulence, it is time to take a therapeutic bite registration. Example: record your bite set as follows: vertical set: 6 mm, horizontal set: 2 mm.

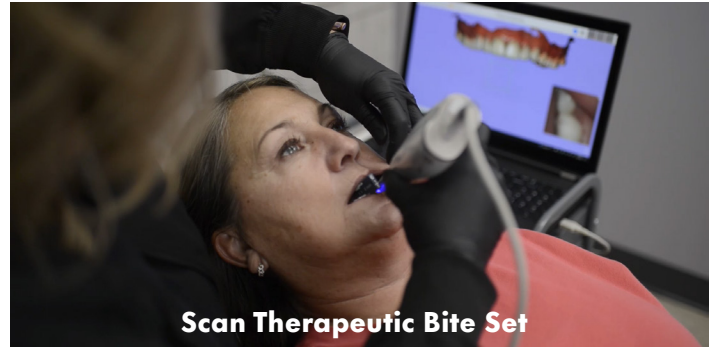
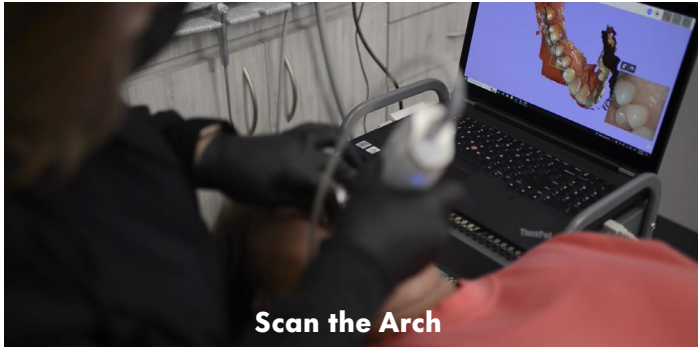






### **Bite Registration Procedure**

1. Scanning the Bite: Scan the lower arch and the upper arch. Then have the patient bite on the horizontal key that was the best measurement, and scan in an oval pattern on both sides from the 2nd premolars to the 1st molar. The bite will align in the vertical and horizontal set you have chosen.
2. Bite Registration Material Bite: Place a bite-fork in the front slot of the horizontal key you have chosen for the patient's bite set. Apply bite registration material to both sides of the bite-fork. Have the patient bite into the chosen notches on the horizontal key. Fill in the spaces between the teeth and the bite-fork on the upper and lower, and then have the patient close the patient's lips together. Let the material set and remove.



### **Sterilization**

1. **DO NOT AUTOCLAVE.**
2. Use regular strength Cavicide or isopropyl alcohol.
3. Spray and wipe all surfaces.
4. Air dry.