

# The Wilson 3D Multi-Action Palatal



The 3D Multi-Action Palatal Appliance provides rapid arch expansion or contraction, unilaterally or bilaterally; expansion or contraction of bicuspids; advancement of incisors, and rotation, tip and torque of all molars. Buttons are often placed on the lingual of the cusps to keep the lingual wires functioning in a horizontal plane.

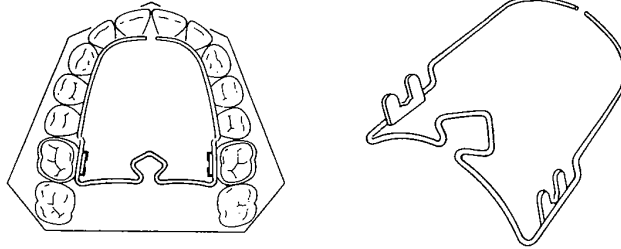
The Wilson line of Transpalatal (TPA) and lingual holding arches (HA) provide the security and anchorage of fixed TPA's and HA's but in removable form. While TPA's and HA's are primarily used to maintain expansion and distalization and prevent relapse, the Wilson line offers diamond loop which allow for continued arch expansion or contraction; expansion or contraction of bicuspids, advancement of incisors, and rotation, tip and torque of all molars.

The Wilson 3D fits into vertical slots on the lingual of the first molars. The vertical slots allow for quick and easy adjustments throughout treatment. The adjustments are well described and illustrated in the "Enhanced Orthodontics Mechanotherapy Manual" available from RMO.

# 3D® MULTI-ACTION PALATAL APPLIANCE



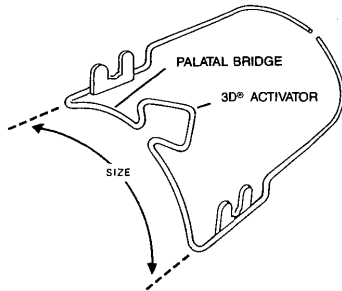
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Fax: 940-898-1400



## A SINGLE FIXED/REMOVABLE ALTERNATIVE TO MULTIPLE REMOVABLE APPLIANCES

- Transpalatal Arch
- A Total Arch Expansion
- Selected Cuspid and Bicuspid Expansion
- Lateral Incisor Advancement
- Rapid Palatal Expansion
- Unilateral Expansion
- Molar Contraction
- All Molar Rotations
- Molar Buccal Crown Tip
- Molar Buccal Root Torque
- Molar Lingual Root Torque
- Molar Lingual Crown Tip
- Second Bicuspid Space Regainer
- Second Bicuspid Buccal Uprighter

## STEP 1

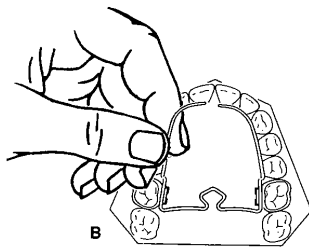
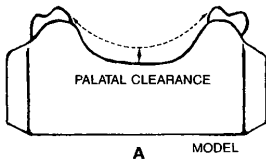


### SELECTING THE 3D® MULTI-ACTION PALATAL APPLIANCE

The 3D® Multi-Action Palatal Appliance is available in six sizes which will accommodate most of your requirements. The 3D® Activator loop can be expanded or contracted for in-between sizing.

- Size 1 32 mm
- Size 2 36 mm
- Size 3 40 mm
- Size 4 44 mm
- Size 5 50 mm
- Size 6 56 mm

### SIZE MEASUREMENT MOLAR TO MOLAR



SIZING THE ARCH  
ON THE MODEL

### SIZING THE APPLIANCE ON THE MODEL

- (A) Measure the vault of the palate from molar to molar on the model, allowing for a 3 to 4 mm palate clearance, (or your preference).
- (B) Test the selected appliance on the model.

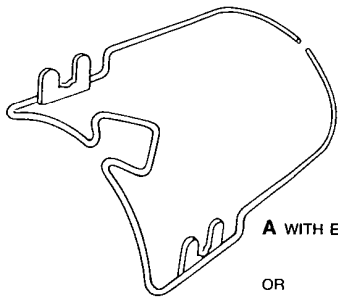
### SIZING DIRECTLY IN THE MOUTH

If you are sizing directly in the mouth:

1. Visually size from molar to molar.
2. For a high vault palate, select a larger size.
3. For a lower vault palate, select a smaller size, always allowing for palate clearance.

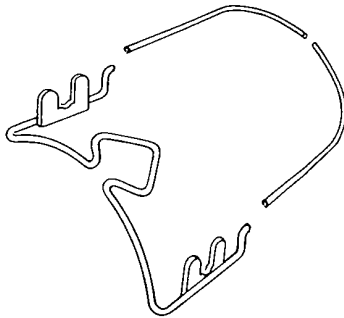
Visit [www.fivestarortho.com](http://www.fivestarortho.com)  
for full page technical details and patient  
information on all of our appliances!

## STEP 2



OR

B WITHOUT EXTENDERS



### ADAPTING THE 3D® MULTI-ACTION PALATAL APPLIANCE TO THE MODEL

(A) The 3D® Multi-Action Palatal Appliance is in the preformed shape as illustrated, with Extenders for multi-action.

(B) For those who wish an appliance without the Extenders, they are simply cut off at the gingival step-down, mesial to the larger post. Turn the cut end buccally. This appliance, like all 3D® appliances, should be irritation-free.

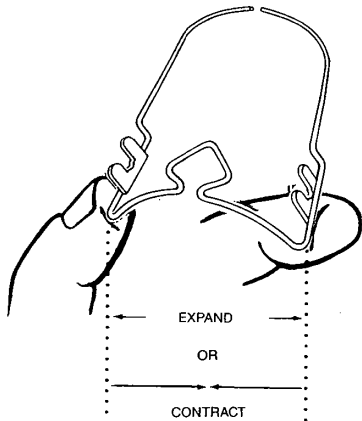


**ORTHODONTICS**

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## STEP 3

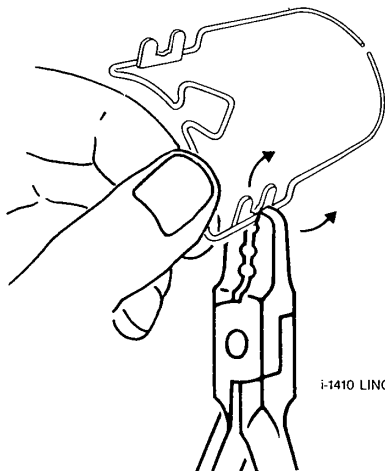


### EXPANDING OR CONTRACTING

The 3D® Multi-Action Palatal Appliance can be easily expanded or contracted by simple finger pressure to align the posts with the 3D® Lingual Tubes on the model or in the mouth.

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## STEP 4



i-1410 LINGUAL ARCH FORMING PLIER

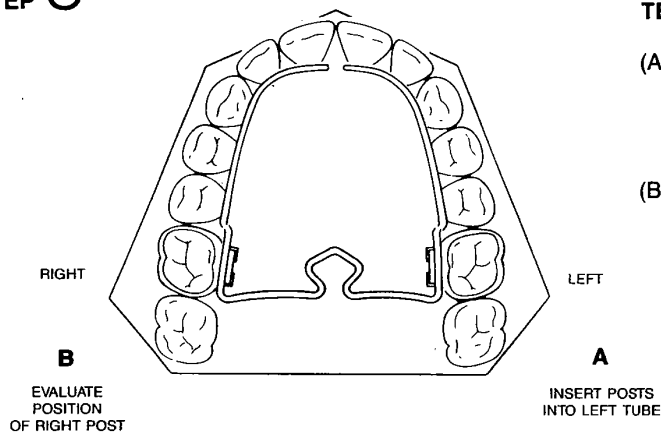
### POST ROTATIONS

It is recommended that an i-1410 Lingual Arch Forming Plier be used for all leveling, torquing and rotation adjustments made to the 3D® Twin Posts. Engage the appliance using the outermost grooves of the plier. Bends should be made using thumb or finger pressure while holding the appliance as shown in the illustration.

Note: Use the i-1410 Lingual Arch Forming Plier only on the following Modular Orthodontics™ appliances:

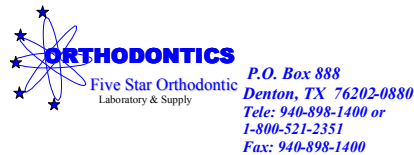
- 3D® Quad Helix Appliance
- 3D® Palatal Appliance
- 3D® Multi-Action Palatal Appliance

# STEP 5

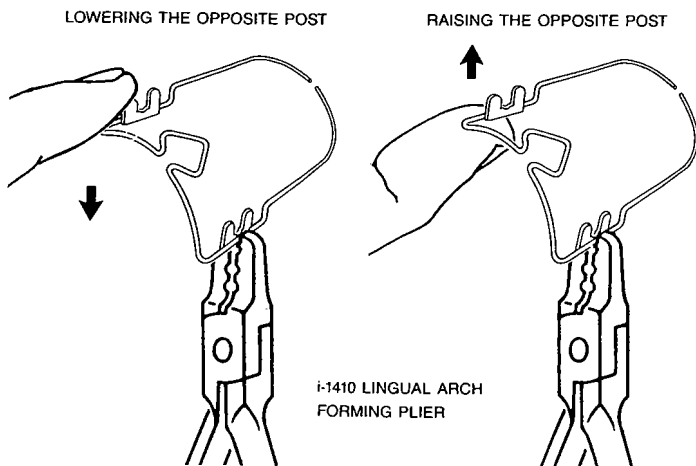


## TEST THE APPLIANCE IN BOTH 3D® LINGUAL TUBES

- (A) Now insert the left side into the 3D® Lingual Tube and evaluate the right side. The right side needs to be in neutral position over the right tube. Make additional adjustment if necessary until it lines up over the twin tube.
- (B) When you are satisfied with the left side, take the appliance out and insert it in the right twin tube and reverse the procedure for left side adjustment.



# STEP 6



## LEVELING THE 3D® MULTI-ACTION PALATAL APPLIANCE (Removing molar tip and torque)

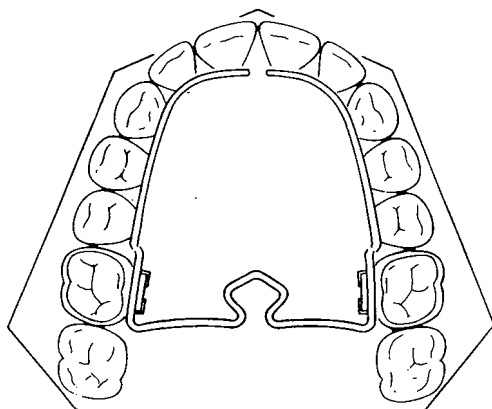
Testing for any tip or torque in the vertical posts is a simple procedure. The posts are inserted on the right side only and the height of the left side is tested. It can be raised or lowered. Remove the appliance, then, holding the right side at the distal post with the i-1410 plier, make a simple finger bend of the appliance to elevate or lower the left side.

Repeat this procedure on the left side until the appliance is level and passive in the tubes on both sides.

The appliance should now be passive and can be inserted into the 3D® Lingual Tubes.

Note: The same procedure is used for treatment tip and torque.

# STEP 7

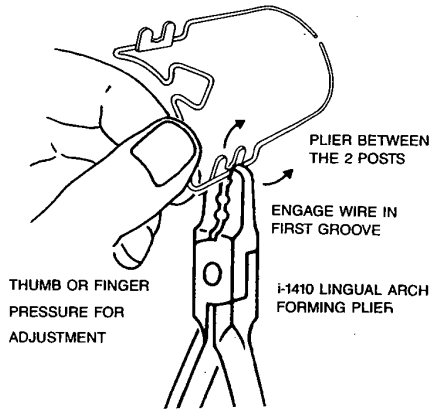


## FINAL TESTING ON THE MODEL

Bands with prewelded 3D® Lingual Tubes and the buccal tubes of your choice are cemented on the first molars. The passive 3D® Multi-Action Palatal Appliance is plugged into the 3D® Lingual Tubes.

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# STEP 8



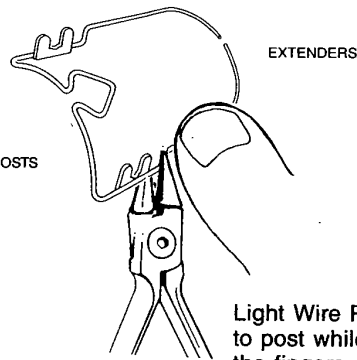
Pliers hold the mesial posts for mesial adjustments and the distal posts for distal adjustments.

## MOLAR ROTATIONS

Rotation adjustments are made with an i-1410 Lingual Arch Forming Plier along with indicated expansion or contraction.

Programmed rotation of molars produces a relationship of posts to 3D® Lingual Tubes, which creates a rotational tension. Upon insertion of the 3D® posts into the 3D® Lingual Tubes, positive molar rotation results. Minimal adjustment produces trouble-free rotations.

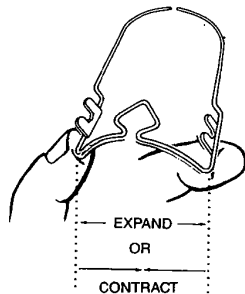
Care must be taken not to disturb the relationship between the twin posts as it is fabricated by the manufacturer.



## ADJUSTMENT OF EXTENDER

Appliances with precision-solid posts require the same protection of holding the post with an i-1410 Lingual Arch Forming Plier. Adjustment of .025" Extenders requires holding the .025" wire proximal to the nearest post with a Light Wire Plier while the wire is bent with finger pressure.

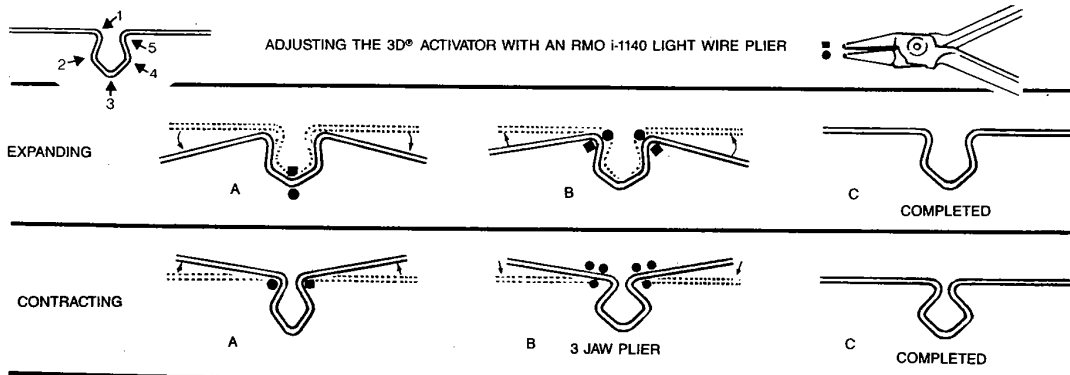
# STEP 9



## EXPANSION OR CONTRACTIONS

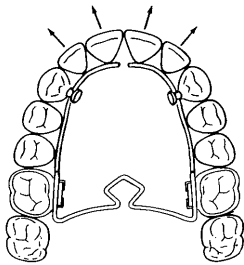
Expansion or contraction are produced by simple finger pressure or with an i-1140 Light Wire Plier adjusting the 3D® Activator loop.

Expansion causes buccal crown tip at the 3D® Posts. Contraction causes lingual crown tip at the 3D® Posts. If either the buccal or lingual tip is not desired, the crown tip is quickly adjusted and removed at the distal post before plugging into the 3D® Lingual Tube.

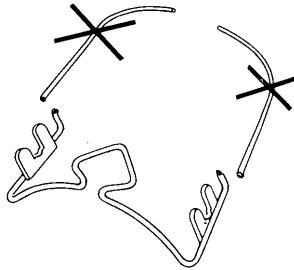


3D® MODULAR 1st PHASE FIXED/REMOVABLES™

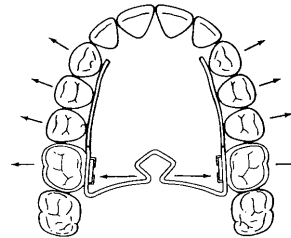
**3D® MULTI-ACTION PALATAL APPLIANCE with multi-purpose functions**



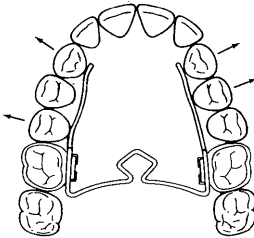
Incisor Advancement



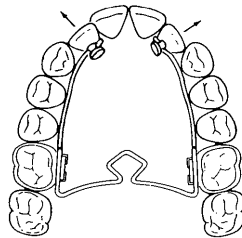
Trans Palatal Appliance



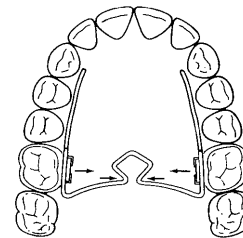
Buccal Expansion



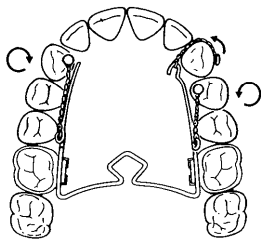
Selective Expansion



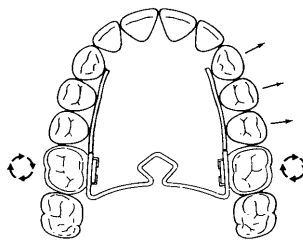
Lateral Advancement



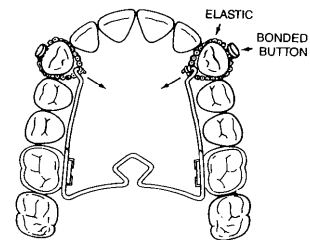
Molar Contraction



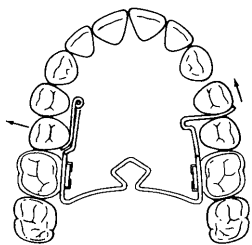
Cuspid and Bicuspid Rotation



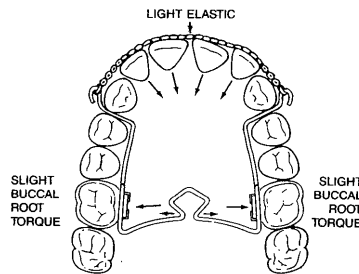
Molar Rotation with or without Expansion



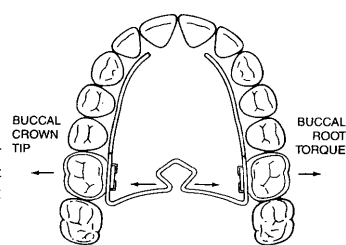
Cuspid Lingual Movement



Variable Bicuspid Movements



Anterior Retraction



Molar Buccal Movement and Unilateral Molar Expansion