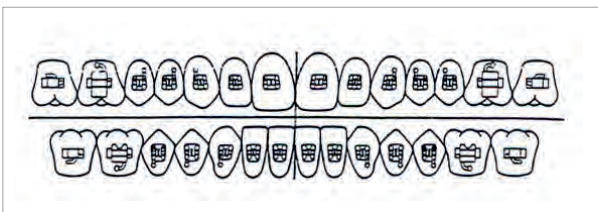


Etch; Composite and primer; Cold spray; Brackets; Study models.



### Banding

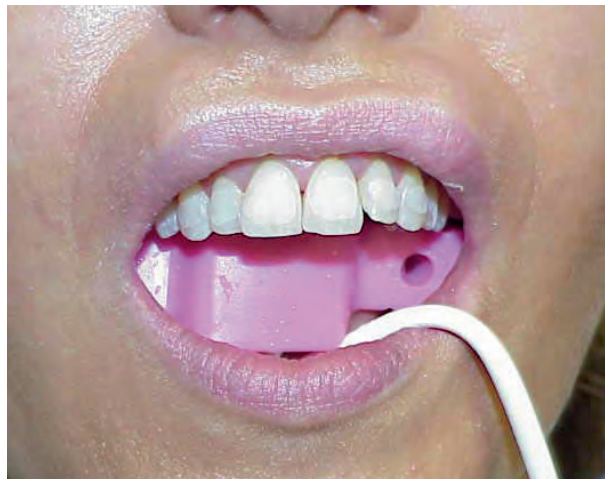
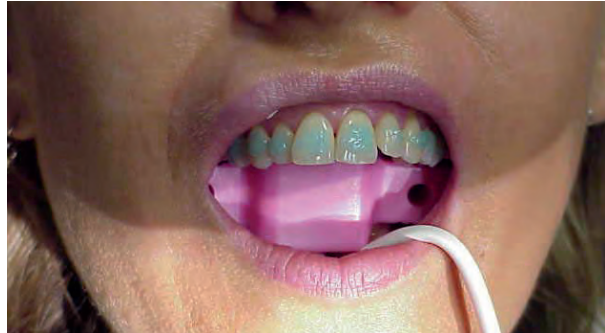
1. Heavy band pusher
2. Separating pliers
3. Band biter
4. Band removing pliers
5. Weinghardt pliers



Since many cases are started in the mixed dentition, often only 4 incisors are bracketed and 2 molars are banded (“2 by 4 set-up”) in each arch (depending on the age and development of the patient). It is important that the incisors are bonded on the LA point. As the other teeth erupt fully later on, then these are bracketed at the correct height in relationship to the incisors.

### THE PROCEDURE

First polish the teeth, then etch 30–60 seconds, then rinse. Do not let saliva touch the teeth after rinsing and drying.





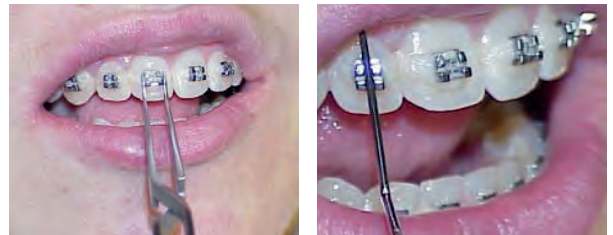
Set up the necessary brackets on the special “sticky pad”. The gingival edge/side is on the top for the maxillary and on the bottom for the mandibular.



Squeeze the lower part of the handle of the bracket holder/tweezer to grab and release the bracket.



Squeeze the upper part of the handle while placing the bonding material.



Place the bracket using the tweezers, then align with a bracket aligning instrument.

### Bracket Height Gauge

- Measure the length of the clinical crown.
- To start, place a bracket on the LA point of a central Incisor. The tie wings must straddle the LACC equally so as to “sit on the LACC like a saddle on the back of a horse”.
- Then take the Height Gauge to position the bracket at the desired height. This instrument can be used on the anterior teeth and the premolars.
- There are 4 different heights indicated on the instrument.

Example : if the length of the tooth is 8 mm, then the center of the bracket (the slot point) is sited at 4 mm on the LACC, and the side of the height gauge marked 4 is used for this.

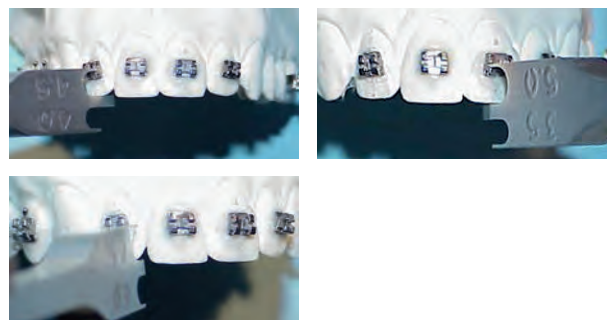
- The instrument is constructed so that the thin blade part can fit perfectly in the horizontal slot of the bracket in order to hold the bracket against the tooth surface.

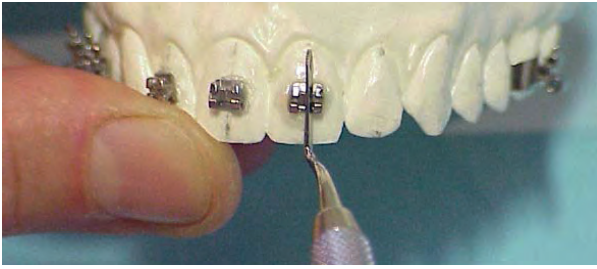


The longer central part is placed on the incisal edge or on the cusp tip of the tooth with the handle parallel to the occlusal plane. Like this the bracket is positioned at the correct height.

For height consistency: Very important – The handle is always oriented parallel to the occlusal plane.

The handle is always oriented parallel to the occlusal plane for all teeth. If this is not done, the bracket heights from front to back in the arch will not be correct and true leveling will not be possible.





- Then the bracket is aligned on the LACC with an aligning instrument or a periodontal probe.

Only align the bracket on the LACC with this instrument and not with the height gauge, which is used to find the height only.

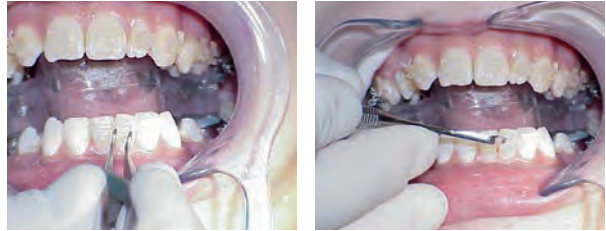
- Now continue with the other teeth.



One must site up or down from the incisal and occlusal view either directly or with a mirror, especially with the premolars/bicuspids.



A “bonding enhancer” (silane) can be used for the metal posterior brackets and for porcelain brackets.



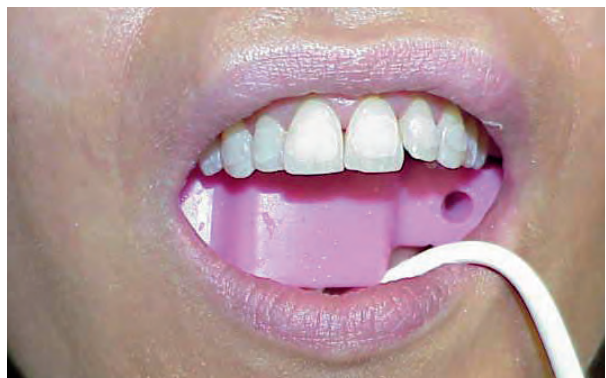
Always use special orthodontic light-cure, non-mix composites for bonding of the brackets/tubes. The composite is made so that it will cure “under” metal brackets.



After etching, rinse, dry and do not let saliva touch the teeth again or there will be contamination and the brackets will come loose.

After etching and drying, bond the 2 maxillary centrals first. Then the 2 laterals. Make sure they are properly placed in relation to the LA point and to each other.

Then do the right side: cuspid, 1<sup>st</sup> premolar, 2<sup>nd</sup> premolar. Their heights are set in relation to the central incisors and each other. Then do the left side. The same visit or at a later date, the lowers are bracketed in the same manner.



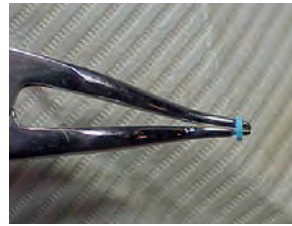
Use an instrument to align the bracket on the LACC.



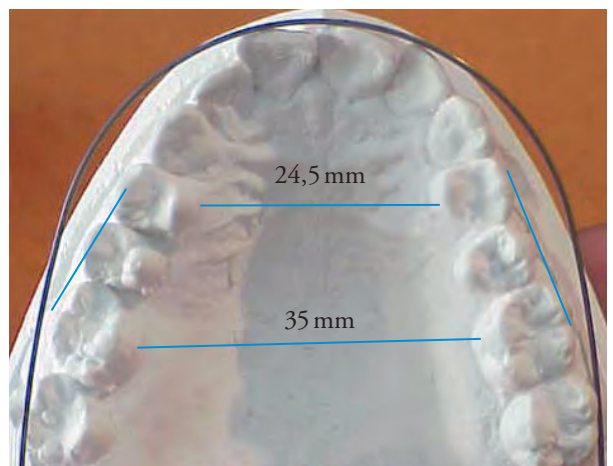
When siting the brackets, always look “down the developmental ridge” from the occlusal side using a mirror.



Separating pliers with elastomeric separators. ♡



The arch wires are pre-formed (shape was developed as a result of the studies of Dr. Andrews and Roth). The U&L shapes are coordinated to enable the maxillary arch to contain the mandibular in a Super CLI finish.



If the natural arch form is larger than this pre-formed wire size, then a larger pre-formed size can be used, or wires that are formable (certain NiTi and steel) can be expanded and used. This does not happen often.

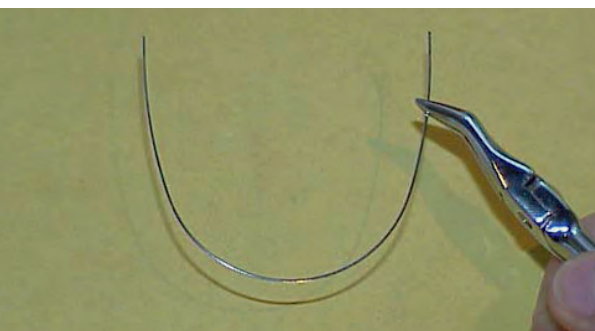


The wire is placed through the molar tube/slot and then tied into the bracket slots with “elastomeric” ligature ties. Metal ties are used in some circumstances.

Make sure to cut off the “distal-end” of the wire.



**Weingardt Pliers:** used to place and remove the wires.



Use the **Distal-End Cutter pliers** to cut off the “distal end” of the wire after the wire is tied-in. The pliers are made to hold onto the cut off piece so it doesn't fall into the throat.



16 HA NiTi wires are used as the first wires. These photos show them after they are just tied into the brackets.



After 3 months of leveling. ♥

MAX: N. 19x25 posted steel.

MAND: 19x25 NiTi, BBs.





Final after 12 months: a non-extraction treatment using slicing and stripping. ♡



Beginning



Final



Hawley Wrap-around removable retainers.

