

# Rebonding Tips for the Custom Bracket System: Insignia®

## Abstract

*Bracket-positioning jigs are crucial for guiding precise, indirect bonding of Insignia® brackets. There are three tips to successfully rebond the Insignia® brackets with proper application of jigs and brackets.*

**Tip 1:** Carefully check residual resin on the bracket base and the tooth surface. Identify potential dislodgement factors and eliminate them.

**Tip 2:** Use a customized single jig, not the group jig, to precisely position the bracket on the tooth surface.

**Tip 3:** Before setting resin with light-curing, press down the corner of jig with a finger and ensure the bracket base securely fitted onto the tooth surface with the tip of a scaler or explorer. (*Int J Orthod Implantol* 2017;47:110-113)

**Key words:**

*Insignia® system, passive self-ligating bracket, custom bracket, indirect bonding, bracket-positioning jig*

## Introduction

Insignia® (Ormco, Glendora, CA), is a customized, digitally reverse-engineered appliance with built-in tipping, rotation, and torque values. Compared to conventional direct bonding brackets, Insignia® is an indirect bonding bracket using bracket-positioning jigs for precise bonding which is key to the effectiveness of Insignia custom brackets.

Rebonding is required sometimes during treatment as the brackets may become loose. Precise rebonding the brackets to their designed positions is extremely important, and easy to achieved by following these three tips.

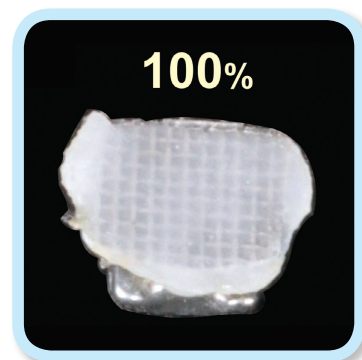
### Tip 1: Check residual resin

The causes of bracket dislodgement vary and primarily involve brackets and/or tooth surface. Depending on the quantity of residual resin left on the bracket base versus the tooth surface, corresponding contributing factors and solutions are proposed below.

**Dr. Charlene Chang,***Lecturer, Beethoven Orthodontic Center, Hsinchu, Taiwan (Left)***Dr. Angle Lee,***Director, Beethoven Orthodontic Center, Hsinchu, Taiwan  
Editor, International Journal of Orthodontics & Implantology (Center Left)***Dr. Chris Chang,***Founder and president, Beethoven Orthodontic Center, Hsinchu, Taiwan  
Publisher, International Journal of Orthodontics & Implantology (Center Right)***Dr. W. Eugene Roberts,***Editor-in-chief, International Journal of Orthodontics & Implantology (Right)***(A) All residual resin on the bracket base (Fig. 1a)**

**Dislodgement factor:** Contamination of tooth surface—plaque deposits and/or insufficient preparation of etching and bonding agents.

**Solution:** Clean the tooth surface thoroughly. Apply the etching and bonding agent following the manufacturer's instructions.



■ Fig. 1a: 100% residual resins left on the bracket base

**(B) All residual resin on the tooth surface / 0% residual resin on the bracket base (Fig. 1b)**

**Dislodgement factor:** Contamination of the bracket base, and/or worn and shallow meshes.

**Solution:** Clean and dry the bracket base completely. Replace the bracket if the base is too smooth by checking with a sharp instrument.



■ Fig. 1b: 0% residual resin left on the bracket base

**(C) 50% residual resin on the bracket base and 50% on the tooth surface (Fig. 1c)**

**Dislodgement:** Excessive occlusion.

**Solution:** Apply bite turbos to increase the vertical dimension of occlusion (VDO).



■ Fig. 1c: 50% residual resin left on the bracket base

## Tip 2: Use a single jig

Insignia® provides group jigs to initially position the brackets (Fig. 2a). In addition to the group jigs, a single jig is prepared for each tooth (Fig. 2b). The single jig's inner-face is designed with a more detailed map than the group jig, which provides more stability and retention when fitting it on the tooth (Fig. 2c).



■ Fig. 2a: Group jigs for initial brackets positioning



■ Fig. 2b: Single jigs for bracket rebonding

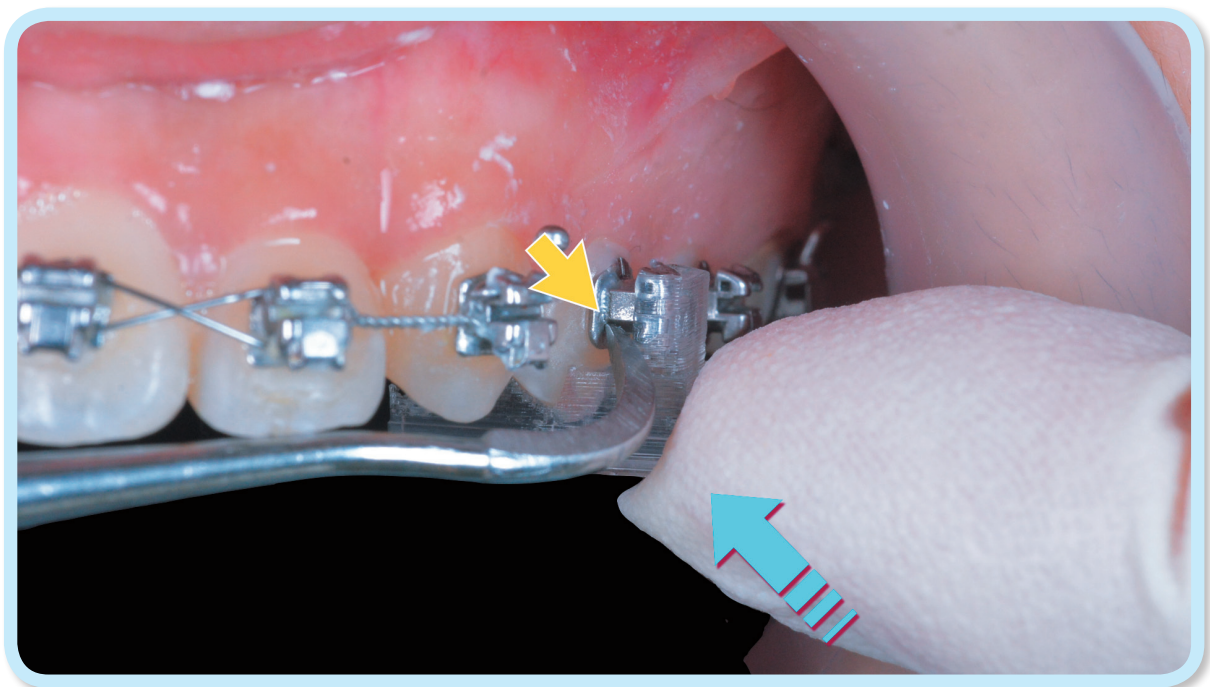


■ Fig. 2c:

Yellow lines on the jigs present 3D-printed maps to fit onto the occlusal surface. The single jig's inner-face (left) contains a more detailed map than the group jig (right), which provides more stability and retention on the tooth.

### Tip 3: Press to fit

After accurately positioning an Insignia® bracket with a single jig, press down the corner of the jig with a finger for stability. Before setting the resin with light-curing, reaffirm the bracket base fitted with the tooth surface with a scaler or explorer (Fig. 3).



■ Fig. 3: After pressing down the corner of the jig with a finger (blue arrow), use a scaler to secure the bracket base (yellow arrow).

### Conclusion

After checking the residual resin, and pressing down the single jig and bracket to fit, it is easy to confidently rebond the Insignia® custom bracket to its designed position.