

USING INTRA-ORAL SCANS WITH HARMONY

Harmony custom lingual appliances can be digitally designed and fabricated using intra-oral scans done in your clinic.

Advantages of intra-oral scanning include:

- No shipping delays to our laboratory
- Simplified case submission - nothing needs to be physically mailed
- A 3D digital patient record is obtained immediately

As with traditional impressions, intra-oral scanning is sensitive to both clinical technique and your patient's anatomy.

To avoid delays or poorly fitting appliances that are costly and frustrating, it's best to carefully scrutinize image quality immediately following the scan. Re-scan the patient as many times as necessary during their first visit to obtain a single acceptable scan. If limitations of the scanner or the patient's anatomy make this difficult or impossible, **be prepared to take a traditional PVS impression instead.**

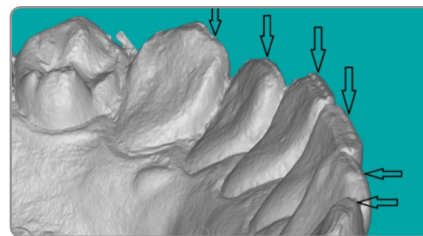
When doing digital intra-oral scans, it is crucial that you:

- Verify that the resulting **bite relationship** is correct
- Check the **midline, overbite and overjet** relationships
- Confirm the **molar and canine classifications**
- Look for areas where the bite appears to be too open or too closed. Make sure **cross-bites** are accurate, if they exist
- **Look for shifts in the 3D image data.** This can be especially common in anterior areas where alignment between lingual and labial scans can be negatively influenced by a thin incisal edge. If you see anatomy that appears to have wear facets, make sure that the wear is real and not a result of poor image registration. (pic 1)
- **Watch out for** artificial tooth surfaces created by **automated hole filling.** Many scanners have the ability to automatically fill in areas that were not scanned. These artificial areas are sometimes difficult to recognize. Look for areas that have a different surface texture or change in surface shape. **Turn off automated hole filling** if your scanner allows this. (pic 2 & pic 3)
- **Look for** extraneous data that can appear as **strange deformations** attached to tooth surfaces. (pic 4)
- Verify that critical areas are not **deformed or missing.** Cusps can sometimes be deformed such that they prevent proper occlusion. Missing data on the mesial and distal sides of teeth can suggest they are artificially narrow.

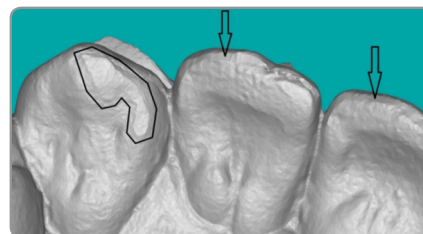
Pay close attention to areas that are the most difficult to scan, such as the distal sides of posterior teeth or regions where teeth are especially crowded or severely angulated.

For Harmony cases, **occlusal and lingual surfaces are the most critical** since these affect the digital setup and bracket pad shapes. Labial imperfections in a scan are mostly a cosmetic concern and generally do not affect the appliance. (They can, however, affect the fit of the indirect bonding trays and the Harmony jigs used to do occasional re-bonds)

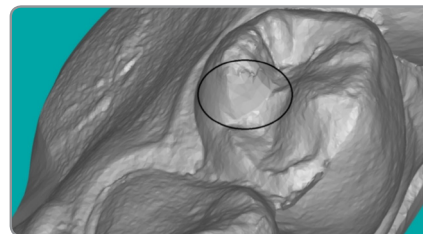
The success of every Harmony case depends heavily on the quality of the 3D digital model we use as a foundation. By following the guidelines in this document, we hope you'll enjoy great success.



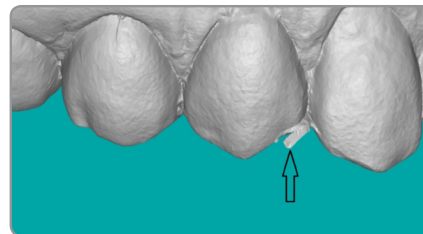
pic 1



pic 2



pic 3



pic 4

NOTES:

MORE INFORMATION

For more information on the Harmony System,
visit us online at www.americanortho.com/harmony

For technical support or customer service call 800.558.7687.



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