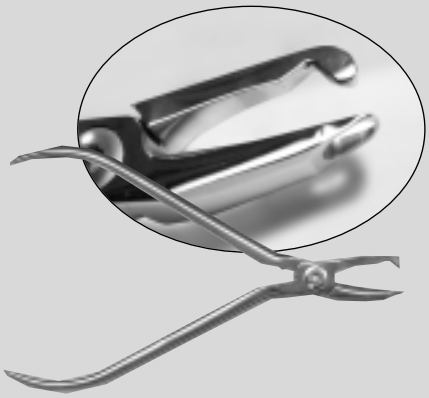
PLIERS:



Maxillary Plier #82520

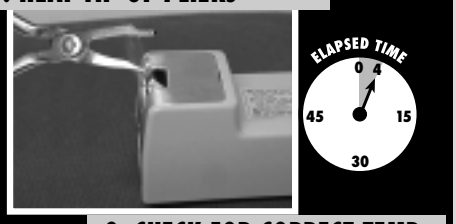
Mandibular Plier #82530

EASY AS 1...2...3

Heating pliers with Essix plastics:

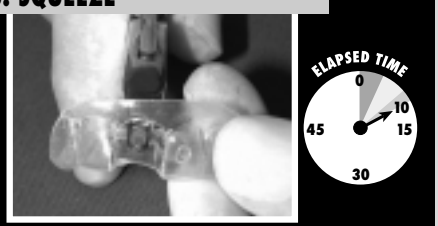
Essix A® = 175° • Essix C+® = 200°

1. HEAT TIP OF PLIERS



2. CHECK FOR CORRECT TEMP

3. SQUEEZE



TECHNIQUE: BODILY MOVEMENT

Dr. Hilliard's new technology allows the clinician to move teeth and tighten an Essix appliance for a better fit without distorting adjacent plastic using an uncomplicated technique that can be done at chairside.

Tooth Movement

Tooth movement requires force and space. The Hilliard Thermopliers for Tooth Movement provide force to move teeth by placing a bump directly into an Essix appliance. It is an improvement of our Divots and Windows technique for tooth movement. There are currently three tooth-moving pliers...

1. Maxillary Tooth-moving Thermopliers

It takes more pressure to move a maxillary tooth than to move a mandibular tooth, thus the tip of this thermoplier is larger than the Mandibular Thermopliers.

2. Mandibular Tooth-moving Thermopliers

The mandibular teeth require a smaller tip to realize all types of movement.

3. Micro-ramp Tooth-moving Thermopliers

Used to rotate, tip and torque teeth.

Create the Force-inducing Bump

The wedge tip of the pliers are heated to a temperature that will thermoform Essix plastic. The recommended heat source is an APT II Burner (Fig. 1). Exact temperatures can be determined by a digital readout on a HAKKO digital thermometer (Fig. 2). The heating time will vary with the type of plastic being used.

Once heated to the exact temperature, the pliers are placed where the bump is indicated. Slowly squeeze the handles of the pliers together. A projection will develop into the Essix appliance (Fig. 3). This bump can be altered at subsequent appointments (in 1.0mm increments) to obtain additional tooth movement without the fabrication of an additional appliance. These increments can be made by adjusting the pliers with the hex screw provided (Fig. 4).

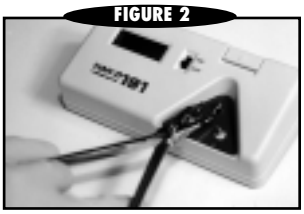
Generating Space for the Tooth to Move Into

The tooth must have space to move into, this can be obtained by placing a thickness of acrylic, stone or Triad light-cured composite, on the surface of the target tooth on model, that is proportionate to the amount of projected tooth movement (Fig. 5), or cutting a space-accommodating window in the appliance. This will form a bubble on the thermoformed appliance – Simple. An alternative method is to cut a window into the appliance (Fig. 6).

FIGURE 1

APT II dental burner to heat the tips of the thermoforming pliers.

FIGURE 2

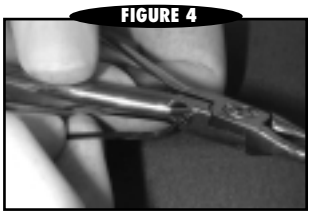


HAKKO digital readout thermometer.

FIGURE 3

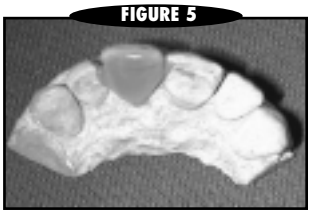
Thermoforming pliers inducing a bump in an Essix appliance.

FIGURE 4



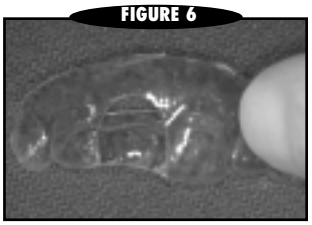
Adjusting the size of the thermoformed bump with the hex screw.

FIGURE 5



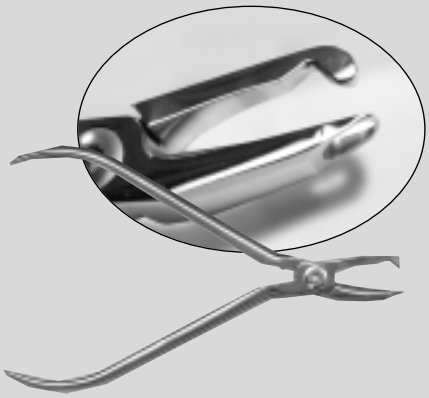
Blocking out the cast to create space for the target tooth to move into.

FIGURE 6



Cutting a window to generate space for the target tooth to move.

PLIERS:



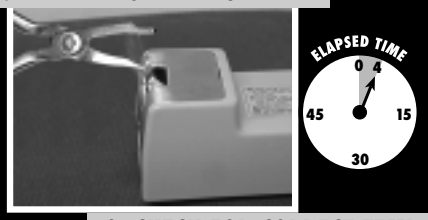
Maxillary Plier #82520

Mandibular Plier #82530

EASY AS 1...2...3

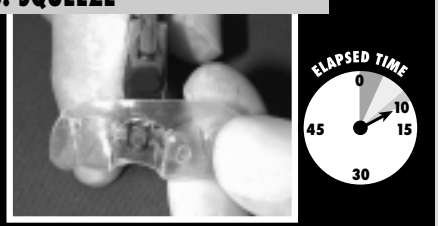
Heating pliers with Essix plastics:
Essix A® = 175° • Essix C+® = 200°

1. HEAT TIP OF PLIERS

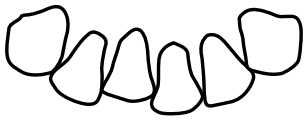


2. CHECK FOR CORRECT TEMP

3. SQUEEZE

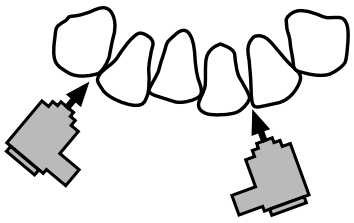


TECHNIQUE: BODILY MOVEMENT

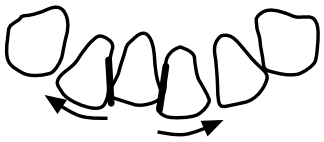


1. **Pre-treatment tooth alignment. Blocked-out incisor requires more space that can be obtained by stripping its proximal surfaces.**

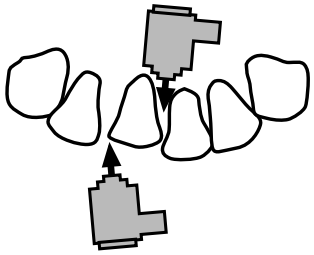
2. **Insert separators one contact away from the blocked-out incisor to create an open field for better visual access. See the patient no more than 5 days after placement.**



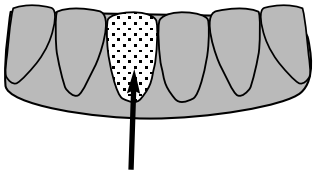
3. **Use ARS to create space (0.5mm - 1.0mm).**



4. **Use separators (slightly larger than in Fig. 2) to move teeth into space created in previous step. Again, see the patient no more than 5 days after placement.**

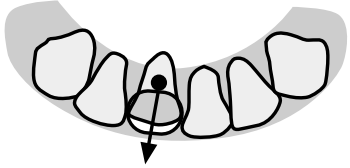


5. **Use ARS to create additional space (0.5mm - 1.0mm) adjacent to the target tooth.**

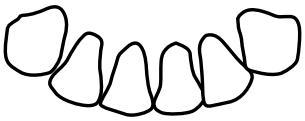


Window cut on facial provides space for target tooth to move into.

6. **Now that space is adequate, create a facial window in the Essix® appliance for the tooth to move into.**



7. **Use Hilliard plier to create force in 1mm increments to move tooth forward. Maxillary Plier (bigger tip) is used for moving upper teeth. Mandibular Plier (smaller tip) is used for moving lower teeth.**



8. **Finished result. Retain with a new conventional Essix® retainer.**