Continuous Wave of Condensation Technique™
Developed by Dr. L. Stephen Buchanan

1. Fit the master cone (in a wet canal) to full length. Grab it at a right angle to the reference point with cotton pliers and trim the tip to be .5mm’s short of full working length.

2. Pre-fit a Buchanan Heat Plugger in the canal and adjust the rubber stop to the reference point. Compare the fit plugger to the fit cone to determine the depth of the plugger in the canal – ideal is 4-6mm from the terminus.

3. Coat the apical 1/3 of the cone with sealer and slowly place it to length in the canal pumping it up and down 2-3 times.

4. The Downpack device can be used with both gutta percha and synthetic material.

5. Sear the cone off at the orifice level.

6. Select the appropriate size Buchanan Hand Plugger, and using the stainless steel end, firmly condense the gutta percha at the orifice.

Illustrations courtesy of Dr. Gary Glassman.
Set the heat plugger on the cone; activate the heat, and downpack, releasing your finger from the operating switch shy of the binding point and maintaining apical pressure for 10 seconds.

Activate the heat switch for a 1 second separation burst, pause 1 second and remove the heat plugger.

Lightly place more sealer in the backfill space with the tip of a paper point.

Select the appropriate Buchanan hand plugger, and using the NiTi end, condense the apical mass while removing any material from the canal walls.

The Backfill device uses both gutta percha and synthetic material. Extrude a small amount of material to heat the needle.

Place the Backfill device needle in the canal short of the condensed fill, wait 5 seconds for the needle to reheat. Backfill the canal ½ way. Using the NiTi end of the Buchanan hand plugger, condense the fill.

Re-insert the needle, wait 5 seconds for it to reheat, backfill to the canal orifice.

Select the appropriate Buchanan hand plugger and, using the stainless steel end, condense the coronal fill.

Finally, if using synthetic material, light-cure for appropriate time.

These surgical techniques are the suggestions of Dr. Buchanan. Axis|SybronEndo is a medical device manufacturer and does not dispense medical advice. Clinicians should use their own judgment in treating their patients.