

# Instructions for use of the "C-I" Tapered Post System

PARKELL PRODUCT  
Information

24-HOUR SAFETY LINE  
800-535-5053

C-I WHITE™—MEDIUM KIT  
C-I WHITE—FINE KIT  
C-I PLASTIC PATTERN—MEDIUM KIT (#2)  
C-I PLASTIC PATTERN—FINE KIT (#1)  
C-I STAINLESS STEEL—MEDIUM KIT (#3)  
C-I STAINLESS STEEL—FINE KIT (#4)

C-I Tapered  
Post System  
Stock No. S093  
Stock No. S090  
Stock No. S107  
Stock No. S100  
Stock No. S114  
Stock No. S120

**CAUTION: U.S. Federal Law restricts the use of these devices to licensed professionals.**

Parkell's C-I Endodontic Posts are part of a "Calibrated Instrument" system designed to retain restorative cores and reinforce endodontically treated teeth, when used with the appropriate resin bonding system. All posts in the system share common characteristics of a tapered posthole for root safety, a reinforced neck for rigidity, a retentive post head, excellent radiopacity and a unified set of posting drills for convenience. All posts are available in Medium and Fine sizes.

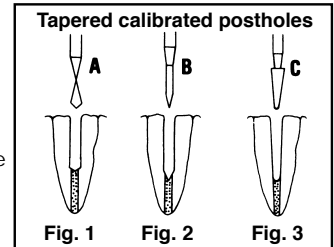
**C-I White™ Posts** are excellent for esthetic situations where the post head color may darken translucent all-ceramic crowns. They are composed of braided glass fibers embedded in strong but resilient epoxy resin for great strength. The head will bond to composite core resin, when treated with the appropriate composite bonding agent.

**C-I Plastic Pattern Posts** are used to fabricate strong cast metal posts using either the direct or indirect cast post technique. They are best utilized as supporting abutments for opaque all-metal or porcelain-fused-to-metal fixed prosthodontic restorations.

**C-I Stainless Steel Posts** are used to quickly and easily fabricate strong posts with bonded composite cores that can reinforce all types of fixed prosthodontic restorations, in the appropriate clinical situation.

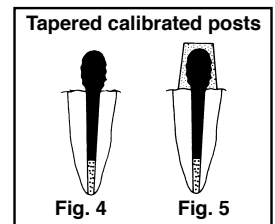
## TAPERED POSTHOLE PREPARATION (Common for all C-I posting techniques)

- 1) Initial Depth Preparation (Fig. 1)**—Use either the two-bladed "A" post drill, or an appropriate-sized Gates-Glidden drill or Peeso reamer to remove sufficient gutta percha from the canal to the desired depth.
- 2) Establish Final Depth and Width of Posthole (Fig. 2)**—Use the "B" reamer to establish the final depth and width of the posthole, based upon your preferred posthole protocol. In establishing posthole depth and width, consider number or roots, amount of coronal tooth tissue remaining, root wall thickness, root length, possible post/core rotation during function and post bonding system to be utilized (among other factors). Use a rubber stopper on the drill to avoid overdrilling.
- 3) Create Final Taper and Shape of Posthole (Fig. 3)**—Use the tapered, flat-bottomed "C" drill to complete the posthole preparation. Rock the drill buccolingually or use last 2mm of the drill to prepare a slightly elliptical posthole at the occlusal portion. This will key in the restoration and prevent post rotation. Irrigate the finished posthole with appropriate cleansers and disinfectants. Rinse with water and completely dry with air and paper points.



## SPECIFIC INSTRUCTIONS FOR PREFABRICATED C-I POST STYLES (C-I White or C-I Stainless Steel)

- 1) Fitting a Prefabricated Post to the Posthole and Surface Conditioning (Fig. 4):**  
Fit, and if necessary, adjust the C-I Prefabricated post to the prepared canal. Length of post can be adjusted by shortening from occlusal portion. Sandblast post surface lightly with 25-50 micron aluminum oxide for 10 sec. Rinse with water and dry to remove residual abrasive.
- 2) Application of Bonding Agent to the Posthole and Prefabricated Post:**  
Apply desired etchants, primers and bonding agents (e.g. Parkell's Brush&Bond® with Mini/Endo B&B Applicator Brush, Amalgambond® or equivalent) to posthole, post and head. Light-cure or self-cure, as per instructions for your bonding agent.
- 3) Post Cementation / Core Buildup Strategies**



### a. Alternative "A"—Separate Post Cementation and Core Buildup (Fig. 5):

Coat post and posthole with dual-cure or self-cure resin cement (e.g. Parkell's C&B Metabond®, TotalBond®, SEcure™ or equivalent). Insert post into posthole and hold for 10 seconds to permit hydrostatic pressure to equalize. When cement is set, fill appropriate core former with dual-cure core composite and seat over post head. Allow to self-cure or light-cure per product instructions. Cut off core former and complete crown preparation as usual.

### b. Alternative "B"—Combined Post Cementation and Core Buildup with Absolute Dentin™ (or equivalent):

Insert Absolute Dentin cartridge into gun. Remove and discard cartridge cap or previously used mixing tip. Double bleed cartridge as per instructions in kit. Cut off approximately 1 mm of the yellow intra-oral tip and attach to the end of the yellow mixing tip. Insert the yellow intra-oral tip into the posthole without expressing the composite. When fully inserted, express Absolute Dentin until it shows around the neck of the tip. Then withdraw the tip while continuing to squeeze, to stop air from entering the mass. Insert post into posthole, and hold firmly in place for about 10 sec, to resist hydrostatic pressure. Continue buildup with Absolute Dentin inside matrix or copper band. Compress with gloved, alcohol-lubed finger to remove air bubbles, and wipe to side so as not to pull out core material. Light-cure the coronal portion to resist saliva contamination. Let remaining core self-cure for 3.5 to 4 minutes. Remove matrix and complete crown preparation as usual.

## SPECIFIC INSTRUCTIONS FOR C-I CAST POST FABRICATION

After root canal therapy, prepare the posthole as described above. Leave sufficient tooth structure to permit casting of a core with a retentive metal marginal lip or ferrule, and incorporate other anti-rotational elements as needed.

### Direct Technique With Burnout Resin and Core Pattern (Fig. 6 and photos below)

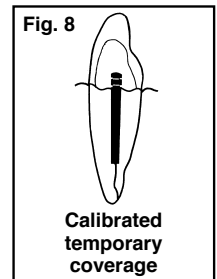
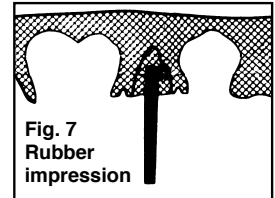
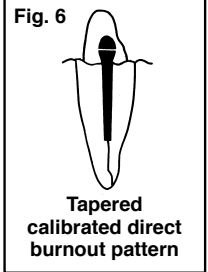
- 1) Try-in plastic burnout post and selected core pattern. Adjust lengths as necessary for passive fit.
- 2) Lubricate prepared posthole with K.Y. Jelly and half-fill it with a "soupy" mix of Parkell's Relate™ (blue burnout resin) or equivalent. A "brush-dip" or Nealon technique is recommended.
- 3) Wet surface of plastic burnout post with Relate liquid monomer and insert into posthole half-filled with Relate burnout resin. Fit Relate-filled Core Pattern over it.
- 4) Remove any excess Relate. As custom fabricated post and core pattern is setting, move it in and out of prepared canal to avoid lock-on.
- 5) After completely set, remove burnout post and core pattern, invest and cast as usual.

### Indirect Post Impression Technique (Fig. 7)

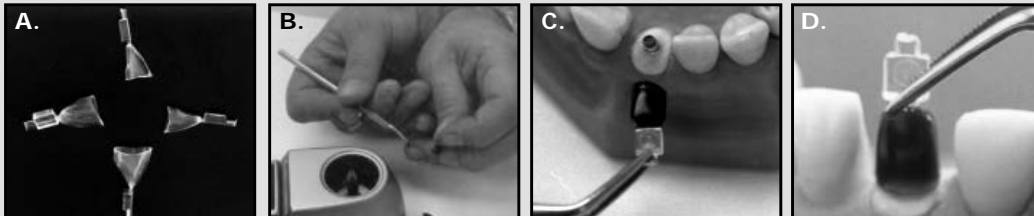
- 1) Check fit of plastic or metal post in prepared canal.
- 2) Remove and apply impression adhesive to coronal portion.
- 3) Apply impression adhesive to appropriate impression tray. Syringe a light-body impression material (like Cinch™ Light or Sharp™ Wash VPS) into prepared canal, and insert plastic or metal post. Syringe additional light-body material around occlusal portion of post and remaining natural teeth.
- 4) Take quadrant impression in previously selected tray, using a medium or heavy body material (like Cinch Medium, Cinch Heavy, Sharp Medium or Sharp Heavy).
- 5) Prepare master model as usual and cast post using appropriate laboratory procedure.

### INSTRUCTIONS FOR PREFABRICATED TEMPORARY C-I POST STYLES (Fig. 8)

- 1) Select and fit temporary stainless steel post in posthole. If necessary, shorten from occlusal.
- 2) Select and fit temporary crown form. Adjust at gingival for passive fit.
- 3) Insert temporary post into canal and cover with crown form filled with tooth-colored, self-cure acrylic (like SNAP™).
- 4) Remove excess acrylic, allow to harden, remove and trim.
- 5) Cement with temporary cement.



### TIME-SAVING PRE-FORMED CORE PATTERNS FOR ANY POST AND CORE TECHNIQUE



#### Directions for use: Custom-Cast Technique:

- A. Core-Patterns are available in 6 assorted sizes (Stock No. S134).
- B. Fill selected size with inlay wax or Relate resin (Stock No. S458).
- C. Carry filled Core-Pattern to burnout post or C-I resin post (Stock Nos. S106 or S113).
- D. Seat filled Core-Pattern over burnout post and lute together.
- E. Remove post/core pattern assembly, attach sprue, invest and cast.
- F. Castings

### PARKELL'S QUALITY SYSTEM IS CERTIFIED TO ISO13485 / ISO9001.

**WARRANTY:** Parkell will replace defective material for a period of one year from the date of manufacture, if handled and stored properly. **This warranty is in lieu of all warranties of merchantability, fitness for purpose or other warranties, express or implied.** Parkell does not accept liability for any loss or damage, direct, consequential or otherwise, arising out of the use of or the inability to use the product herein described. Before using, the user shall determine the suitability of the product for its intended use and the user assumes all risk and liability whatsoever in connection herewith.

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