Bisco

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D.T. LIGHT-POST® X-RO® ILLUSION™

Radiopaque Translucent Fiber Post System

Instructions for Use

BISCO, Inc.
1100 W. Irving Park Road
Schaumburg, IL 60193
U.S.A.
1-847-534-6000
1-800-247-3368

RTD Patents: US8298973, US7726971.

IN-165R7
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Caution: U.S. Federal law restricts this device to sale by or on the order of a licensed Dentist.

D.T. LIGHT-POST® ILLUSION™* X-RO®*
Radiopaque Translucent Fiber Post System

GENERAL INFORMATION

D.T. LIGHT-POST ILLUSION X-RO posts are constructed from unidirectional, pretensed fibers bound in a resin matrix. This design produces a post with flexural strength exceeding that of metal posts but with a modulus of elasticity very close to that of dentin. The low modulus dissipates stress rather than transferring and concentrating stress in the residual root structures as seen with cast or prefabricated metal posts.

The **D.T. LIGHT-POST ILLUSION X-RO** is a color coded post for easy identification. However, the color intrinsically disappears when placed in the canal leaving an aesthetically pleasing translucent post. The color can reappear on demand with a cold water spray to aid with post removal in the event the tooth requires future retreatment.

Due to its translucency, BISCO's **D.T. LIGHT-POST ILLUSION X-RO** will transmit light and can be used with light-cured or dual-cured cements and adhesives. This post will intimately bond to the tooth structure and core build-up composite while its passive taper respects morphology and conserves tooth structure.

INDICATIONS FOR USE:
Fiber posts are intended to be cemented into the root canal of a tooth to stabilize and support a restoration.

WARNING:
- Drills are sold non-sterile and must be sterilized prior to first use and between subsequent uses in accordance to the instructions provided below.

CAUTION:
- Visually inspect the drills before each use and change to new drill when damaged, corroded or dull. Use a new drill after 12-15 uses.
- Posts are single use devices and should never be re-used. Structural integrity of the post could be compromised including microscopic damage which could lead to post fracture.

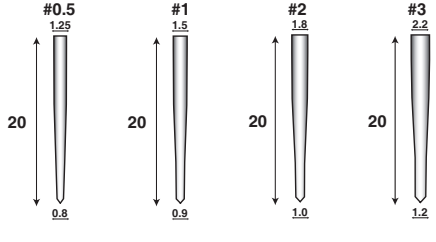
PRECAUTION:
- Gloves must be worn when handling a post since the post fibers may irritate the skin and the oils on the skin may affect the bond strength of the post.
- The post must be cleaned with alcohol before insertion in the canal.
- Shortening the post should be done outside of the mouth.
- The use of rubber dam is strongly recommended.
- The crown must cover the preparation of at least 1.5 mm of healthy dentin in order to get the ferrule effect.
- Never use pliers to cut the post since the pressure can destroy the structure of the post. In addition, surface alteration of the post (sandblasting or roughening with a bur) is not indicated.
- Safety data sheet available on request.
- Safety data sheet available at www.bisco.com

CLINICAL PROCEDURE

With the tooth endodontically treated and filled with gutta-percha, the remaining tooth structure is prepared according to conventional principles.

1. SELECTION OF POST SIZE

Posts are available in four different sizes to accommodate a variety of teeth and canal sizes. Drills and posts are color-coded for ease in determining which drill is to be used with each post. It also aids in size identification.



ALL DIMENSIONS ARE IN MILLIMETERS

— Size #0.5 Post: Black
Pre-Shaping/#0.5 Drill: Black
— Size #1 Post and Drill: Red
— Size #2 Post and Drill: Yellow
— Size #3 Post and Drill: Blue

A. Size and direction of canal is determined by radiographic examination. A mylar radiographic guide showing the various sizes of the posts is included with each system kit.

B. A general recommendation can be followed for post size selection:

• Post #0.5	Central and lateral mandibular incisors Anywhere else deemed appropriate for this size
• Post #1	Central and lateral mandibular incisors Mesial and distal canals of maxillary molars Maxillary and mandibular premolars Mesial canals of mandibular molars
• Post #2	Lateral maxillary incisors Distal canals of mandibular molars Palatal canals of maxillary molars Maxillary and mandibular canines
• Post #3	Maxillary centrals and canines Palatal canals of maxillary molars Distal canals of mandibular molars Large/wide canals

2. CANAL PREPARATION

A. General recommendations for post space preparation:
- The post should be 2/3 to 3/4 of the length of the root.
- A minimum of 3-5mm of gutta-percha should remain at the apex.
- Proper isolation must be used.

B. Remove gutta-percha with a #1 or #2 Peeso Reamer, #3 Gates Glidden or a heated endodontic plugger.

C. Shaping the canal:

(1.) Use the D.T. Pre-Shaping Drill (black) to complete the preliminary preparation. This instrument determines the final depth to which the post will be placed and serves to guide the final preparation with the subsequent drills.

(2.) An endodontic rubber stopper on the shaft of the drill should be used as a guide for determining the length of the preparation with radiographic verification. In order to ensure against root perforation while drilling, make sure the drill is always positioned within the canal.

(3.) Remove debris from the canal with water followed by drying with paper points.

D. Final canal preparation:

(1.) Use the D.T. Drills in order, starting with the smallest, until the desired final size is accomplished.

PLEASE NOTE: Posts require the sequential use of the drills as follows:

Size #0.5: Use only the Pre-Shaping/#0.5 Drill (black),
no additional use of other drills needed.

Size #1: Use the Pre-Shaping Drill (black),
followed by the size #1 Drill (red).

Size #2: Use the Pre-Shaping Drill (black),
followed by the size #1 Drill (red),
followed by the size #2 Drill (yellow).

Size #3: Use the Pre-Shaping Drill (black),
followed by the size #1 Drill (red),
followed by the size #2 Drill (yellow),
then the size #3 Drill (blue).

(2.) Ideally, the final canal preparation allows sufficient space for the post and 30 microns around the post for bonding materials.

3. DETERMINING POST LENGTH

A. To determine the total length of the post: Try-in the post and mark the desired position.

B. Remove the post from the canal and cut with a diamond bur or diamond disc. Never use pliers to cut the post since the pressure can destroy the structure of the post. In addition, surface alteration of the post (sandblasting or roughening with a bur) is not indicated.

4. POST CEMENTATION

Please refer to the manufacturer's instructions for guidance when cementing post and building the core.

5. FINAL PREPARATION

Conventional principles of tooth preparation (Ferrule Effect) must be followed for optimal results.

- Preparation for final restoration must end on sound tooth structure.
- There must be 1.5mm of sound tooth structure beyond the core material.
- Positive horizontal and vertical walls should exist.

6. INFECTION CONTROL

D.T. Pre-Shaping Drill and D.T. #1, #2, #3 Drills: these instruments are supplied non-sterile. Disinfect and sterilize instruments before each use. Ultrasonically disinfect instruments with disinfecting or cleaning agents adapted for rotary instruments. Do not disinfect instruments in thermodisinfector. Inspect instruments visually before each use: change to new drills when they are damaged, corroded or dull. The universal drill may be used only to remove root canal filling partially, and the finishing drills may be used only to prepare root canal. D.T. drills must be sterilized individually in an autoclave with the following settings:

- Wrap individually in disposable sterilization pouches or tubing that comply with the regulation standard in force in the country of use (e.g. EN ISO 11607-1).
- Autoclave: type B complying with regulation standard in force (e.g. EN 13060).
- Sterilization temperature: 134ºC/274ºF - sterilization time: 18 minutes.
- Use a new drill after 12 -15 uses.

INFECTION CONTROL FOR D.T. LIGHT-POST ILLUSION X-RO		
	RECOMMENDED	**NOT RECOMMENDED**
DISINFECTION		
All chemical disinfection solutions or thermodisinfector		**X**
CLEANING		
Alcohol e.g. ethanol: 1-5 minutes	**X**	
Boiling		**X**
Ultrasonic cleaning		**X**
STERILIZATION		
Hot air sterilization		**X**
Gas sterilization/Chemiclave		**X**
Steam sterilization/Autoclave		**X**

Note: Unapproved sterilization may render the post unusable.

POST REMOVAL: A D.T. LIGHT-POST REMOVAL KIT is available through BISCO. See POST REMOVAL TECHNIQUE description and instructions available with the D.T. LIGHT-POST REMOVAL KIT. (X-80692P)

HYGIENE: Drills are sold non-sterile and must be sterilized prior to first use and between subsequent uses in accordance with these instructions.

DISPOSAL: Drills should be dispensed in an appropriate sharps container or in accordance with local policy.

STORAGE: Store the sterilized components in a dry, dust-free place. If the packaging's integrity appears to be compromised, before using again, place the component in a new pouch and re-sterilize according to the protocol defined before. The drill should be stored in the sterilization container until required. Containers or pouches must be dry before opening to avoid recontamination of the contents with water. Storage should be in dry, clean conditions at ambient temperature.

WARRANTY: BISCO, Inc. recognizes its responsibility to replace products if proven to be defective. BISCO, Inc. does not accept liability for any damage or loss, either direct or consequential, stemming from the use of or inability to use the products as described. Before using, it is the responsibility of the user to determine the suitability of the product for its intended use. The user assumes all risk and liability in connection therewith.

RTD Patents: US8298973, US7726971.

* D.T. LIGHT-POST and X-RO are registered trademarks of RTD France.
ILLUSION is a trademark of RTD France.
D.T. LIGHT-POST ILLUSION X-RO was developed by RTD France.

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EC REP BISICO France
208, allée de la Coudoulette
13680 Lançon de Provence
France
33-4-90-42-92-92