

*The Easy Pneumatic Crown and Bridge
Remover II
User Guide*



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*The home of the **ONLY** Pneumatic Crown and Bridge Remover*

Indications

Removal of:

- Permanently cemented crowns and /or bridges
- Temporarily cemented provisional or final restorations
- Maryland bridges
- Orthodontic brackets/bands
- Removable appliances “stuck” at attachments
- Multi-unit restoration “stuck” on working lab model

Basic Kit Includes

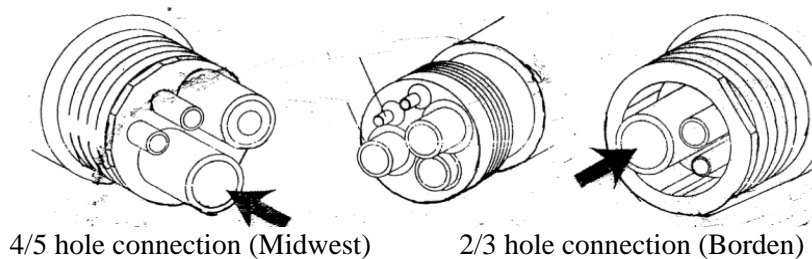
- Easy Pneumatic Crown and Bridge Remover II
- Bridge remover tip - #1
- Single crown remover tip - #2
- Single crown remover contrangled tip - #3
- Open-end adjustment wrench
- Rubber gasket
- Flexi-wire set
- Storage/carrying case
- Instructional / Clinical Video (CD)



THE MANUFACTURER REFUSES ANY LIABILITY FOR DAMAGES DUE TO DISREGARD OF THE INSTRUCTIONS FOR USE BELOW.

Installation

1. Choose convenient air hose (low or high speed).
2. Shut off water valve to hose.
3. Connect air hose to “Pneumatic Remover” by lining up holes and tightening metal collar.
4. Insert appropriate tip into front nose of “Remover” by screwing clockwise. Use the provided wrench to tighten the nut at the bottom of the tip. Note: Tighten firmly but not excessively.
5. Test instrument by depressing foot pedal completely, holding tip flush against your finger nail and depressing and releasing push-button finger switch.
6. Air pressure can be modified by turning the adjustment ring at the bottom of the “Remover”. Move the “red dot” clockwise to lower pressure (-) and counter-clockwise to increase it (+).



Precautions

- When removing crowns placed over pins or screw-type posts, **use lowest “strike intensity”** (towards “-”) to prevent fracture.
- This instrument **could cause damage** to the margins of soft gold crowns. If re-use is anticipated, cut a small groove parallel to the lingual margin to use as a purchase.
- **Highest** strike intensity **could cause root fracture**; be careful in long span restorations.
- **Only low intensity** strike force should be used with teeth having high mobility and little bone support.
- For **highest strike intensity** settings, let the individual situation and **common sense prevail**.

Instructions

For optimal efficiency, it is important to hold the **Remover** with a full hand grasp and not as if it was a handpiece. To reach decementation the action is twofold; a continuous pull is exerted upon the element while the thumb is depressing the impact releasing button. The hand should control the backward movement. Any other of holding the **Remover** will lessen its efficiency (will bring a loss of efficiency), ether by insufficient traction on the element, or because the Easy Pneumatic Crown and Bridge Remover II is not held rigidly enough.

For Maxilla, the operator should be facing the patient. This will provide easy access to buccal and palatal aspects of all teeth.

For Mandible, the right handed operator should be standing to the left of the patient. This will enable him to reach the right and left quadrants while immobilizing the mandible with his left hand during the Remover impacts. The reverse is true for the left handed operators.

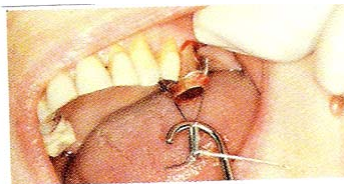
Crown Removal

1. Prior to actual use, demonstrate the mechanics of the instrument to the patient (on their finger nail), explaining that they will hear a sound, but showing them that vibrations or pressure will be minimal.
2. So that the “strike impact” will be in the long axis plane of the tooth, place the sharp, flat edge of the tip under and flush against the crown margin (lingual when possible) - or under removal button.
3. Hold the tip firmly in place with fingers from your free hand (to prevent slippage).
4. Depress the foot pedal (keep it depressed until successful completion of the procedure).
5. While applying a straight and steady pull on the tip, depress and release the push-button finger switch (delivers single “strike impact”).
6. Apply additional “strike impacts” as required.
7. If necessary, using adjustment ring, raise the “strike impact” intensity in small increments (turn “**red dot**” counter-clockwise toward “+”), and repeat from “step 5”.
8. An alternative method would be to press and release the push-button finger switch in rapid succession for low-impact strikes, permitting quick cement seal breakage with less force (especially effective for resin bonding cements).

Note #1: The **lowest setting** on the adjustment ring (“-”) should be used when removing a restoration. As required, increase the pressure accordingly toward (“+”).

Note #2: In a small number of situations, because of an extremely well-contoured crown, you will be unable to engage the tip under the crown margin. You may use either of these alternative techniques. (1) Cut a small groove parallel to the lingual margin to use as a purchase. (2) Wrap the Flexi-Wire around the crown under the gingival contour of the crown and tighten by turning both ends together. Engage the wire with the tip; follow steps 2-6.

Note #3: Decementation of **single unit** of all ceramic or porcelain fuse to metal crown, for which use of insert #2 or #3 may fracture the porcelain or the underlying tooth structure. It is necessary to select a copper band of a size slightly larger than the crown to be removed. The copper band is grossly fitted so as to get beyond the widest contour of the crown (fig 1). One buccal and lingual hole is made at the occlusal end of the band with a bur. A metal wire is inserted through holes and the ends are tied. The wire is included in the **Flexi-Wire** kit. The band (and its wire) is placed around the crown and filled with a mix of self cure resin such as **Duralay**. To make sure the resin gets beyond the widest contour of the crown, a Vaseline glove finger should keep pressing on the occlusal end of the band until the final set of the resin is obtained (fig. 2). At this stage the #4 insert of the Flexi-Wire kit can be use and in most cases the removal of the crown will occur (fig. 3). If it fails to occur, it may be advisable to etch the surface of the porcelain either with a fine grit diamond bur or with a special hydrofluoric acid etch gel and then repeat the copper band resin mix operation.



Bridge Removal

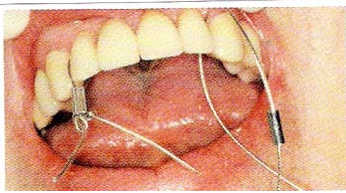
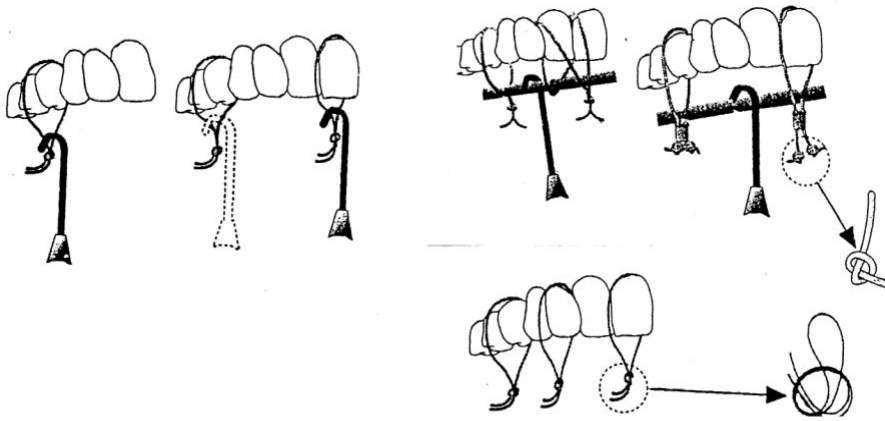
1. Prior to actual use, demonstrate the mechanics of the instrument to the patient (on their finger nail), explaining that they will hear a sound, but showing them that vibrations or pressure will be minimal.
2. If concerned secure the multiple unit restoration with dental floss to prevent accidental aspiration.
3. Plan and choose several interproximal purchase sites.
4. Place bridge removing tip under the contact interproximally, parallel to the long axis plane of the teeth and flush against the restoration.
5. Hold the tip firmly in place with fingers from your free hand (to prevent slippage).
6. While applying a straight and steady pull on the tip, depress and release the push-button finger switch in rapid succession for low impact strikes.
7. Start at and loosen one end; loosen the other end; apply strike impact to the middle of the restoration.

Bridge doesn't loosen?

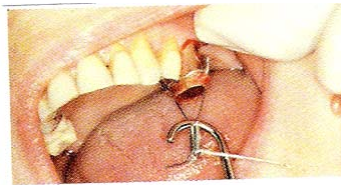
Here's a tip! Occasionally, some restorations will not come out on the initial try. If the intention is to re-use the crown or bridge, rather than cutting it off, allow the patient to go home and return a week later. While it may not have been evident during your attempt to remove the restoration, unseen movement probably took place. Over the course of a few days, saliva will work its way under the restoration, and another attempt at removal during the next visit may be more successful.

Flexi-wire Technique

Sometimes with multi-unit bridges, only one end loosens and there's concern of fracture of the remaining teeth due to a fulcrum effect. Included as an "extra" with your instrument is a flexi wire kit consisting of 10 feet of Teflon wrapped stainless steel wire, a grooved metal bar, and a special "hook" tip. The following illustrates a bridge removing technique that distributes the strike-impact force evenly.



Removal of a bridge with a Flexi-Wire



Single crown with a copper band

Disaffection / Sterilization

The Easy Pneumatic Crown and Bridge Remover II is in OSHA compliance, being completely sterilizable. **Removal of the rubber gasket** before sterilization will prolong the life of the gasket. The following methods of sterilization are suggested, but always check the manufacturer's specifications on your sterilization unit.

- Remove tip by loosening with wrench and unscrewing counter clockwise.
- Wipe or bush clean any visible debris.
- Wipe "Remover" handpiece clean of any visible debris.
- **Do not use lubrication** on this instrument.
- Bag the "Remover" and place in sterilization unit.

Steam:	30 minutes	273 F	30 psi
Dry Heat	6 minutes	190 C (375 F)	30 psi
Chemical Vapor	20 minutes	270 F	20-40 psi*

***Important:** After chemical sterilization, shake "Remover" several times to prevent internal sticking.

WARRANTY CERTIFICATE

The Easy Pneumatic Crown & Bridge Remover II is manufactured with your satisfaction in mind. To ensure proper usage of The Easy Pneumatic Crown & Bridge Remover II carefully review the user guide.

The Easy Pneumatic Crown & Bridge Remover II has no use other than as an aid in the removal of dental restorations, i.e. crowns and bridges, as directed by in the user guide and as limited by the limitations set forth in the user guide.

DESCRIPTION OF WARRANTY

The Easy Pneumatic Crown & Bridge Remover II is warranted to be free of defects in workmanship and materials when used in accordance with manufacturer's directions for a period of one (1) year from date of purchase. Parts and labor are included for this time of period. This warranty does not cover parts and labor to correct damage of defects in The Easy Pneumatic Crown & Bridge Remover II caused by improper usage of the product including but not limited to usage for applications other than those for which it is intended, breakage, due to improper handling, operation above recommended pressures, and/or abuse.

This warranty does not cover damage to restorations resulting from the use of The Easy Pneumatic Crown & Bridge Remover II

There is no other warranty here under either expressed or implied and no other affirmation of fact or premise shall constitute a warranty. You may have other limits. In case of malfunction, please contact Dent Corp. Research & Development.

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If a customer problem cannot be corrected by direction from our technical staff, the customer is directed to mail the unit to Dent Corp. Research & Development at the above address. For the best result; customers should to put clear contact information in shipping package.

Dent Corp. Research & Development will take undertake to repair or replace a defective

The Easy Pneumatic Crown & Bridge Remover II within one week of receipt of defective unit.

Dent Corp. Research & Development is not responsible for any other incident, contingent, or consequential charges or damages.

Troubleshooting

<u>Problem</u>	<u>Possible cause</u>	<u>Solution</u>
Low Power	Low air pressure	Increase to 45 PSI
	Missing connector gasket	Replace with any 4/5 handpiece gasket
	To dry	Lubricate with high speed oil 2-3 drops in the air intake
Air Leaking	Missing Gasket	Replace with any 4/5 handpiece gasket

If any of this solution did not troubleshoot the problem, please contact Dent Corp.