

FOREDOM[®] **AllSet**[®]

Instruction Handbook for Quick Change Handpiece Adapter Kits with Easy-Cut Prong Guide and Channel-Setting Guides



AK841—For the Foredom
No. 10 Quick Change
handpiece



AK839—For the Foredom
No. 18 Quick Change
handpiece



AK840—For the Foredom
No. 52 Quick Change
handpiece

FOREDOM® AllSet®

Quick Change Handpiece Adapter Kit Instruction Handbook

AllSet® prong and channel-cutting tools, like the ones in this kit, bring stone-setters precise, repeatable accuracy and flexibility whenever they're used. The result is higher quality, defect-free stone settings done faster and easier than ever!

Safety Notes

1. Always use eye protection when cutting prongs and channels with your AllSet® Stone Setting and Milling Assembly Kits or when using any power tool.
2. Some prong and channel-cutting operations may require close placement of the hands to sharp, cutting edges. To avoid injury, please pay careful attention to hand placement, avoid distractions and do not operate prong-cutting equipment without your full attention.
3. For safety and effectiveness with any power tool, maintain a clean work surface and a clean general work area.



Here's what you'll find with your Quick Change Adapter kit:

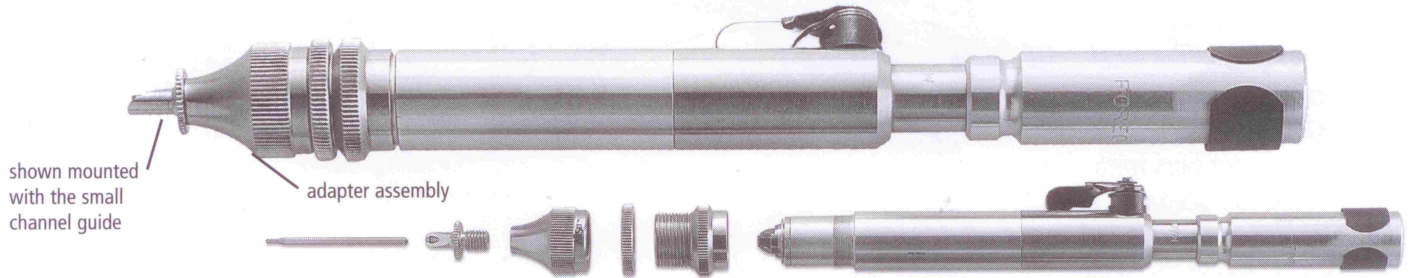
- **The Easy-Cut Prong Guide.** Create level, uniform and precise cuts time after time with this remarkable prong-cutting aid. Its unique design ensures that prongs will be cut at a level and uniform height to set square, round or any other shape stone. It includes a new stop guide that precisely controls the depth of each cut.
- **Channel-Setting Guides.** Create perfectly contoured channel settings for round, square and baguette stones quickly and easily with these precision guides. Kit includes three separate guides (small, large and knife-edge).
- **The AllSet® Adapter.** The key to this flexible prong-cutting system is the AllSet® Adapter. With it, you can use the precision cutting tools above with the Nos. 10, 18, and 52 Quick Change handpieces. The adapter can also be used with the guides from the AllSet® Master Kit, Pavé Kit and Prong Guide Kit (sold separately).
- **Even More Flexibility.** The Easy-Cut Prong Guide and Channel-Setting Guides can also be used with the ForeDOM No. 30® chuck type handpiece. You will need an AllSet Basic Guide Assembly (L-bracket, body and collar) which many of the AllSet® kits on page 8 include. Simply attach the prong guide's plate to the L-bracket on the No. 30® handpiece (see illustration on page 6) and take advantage of the guide's precise cutting abilities.
- **AllSet® Quality.** AllSet® kits and components are made in the USA of highly durable materials. They are versatile tools that stand up to multiple demands and configurations.

I. Attaching the Adapter Assembly to the Handpiece

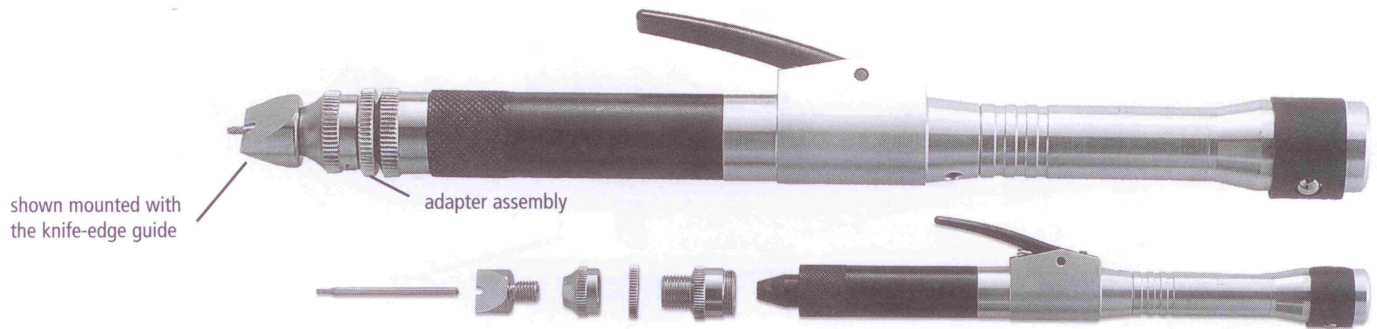
1. Unscrew the nose cone from your Quick Change handpiece and remove it.
2. Screw on AllSet® Adapter assembly tightly, taking care not to cross-thread handpiece.

Select an appropriate guide and setting bur to mount on the Adapter Assembly.

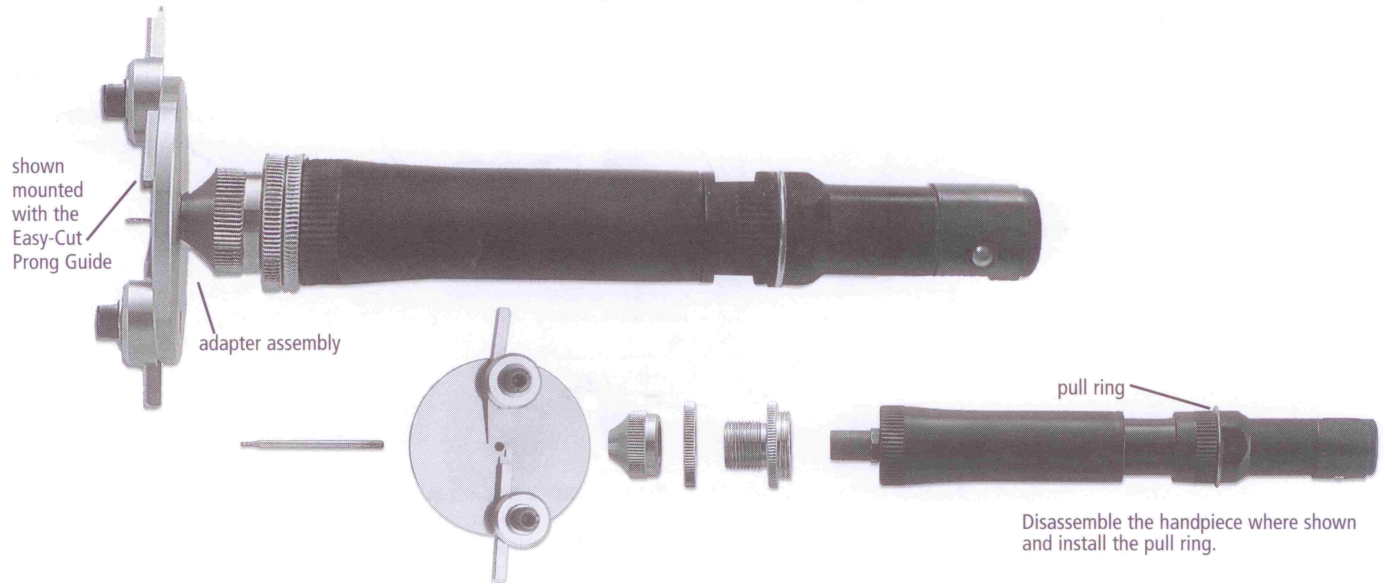
For the No. 10 Quick Change handpiece, use Adapter Assembly from Kit AK841



For the No. 18 Quick Change handpiece, use Adapter Assembly from Kit AK839



For the No. 52 Quick Change handpiece, use Adapter Assembly from Kit AK840



Selecting an AllSet® Guide and Setting Bur for mounting onto the Adapter Assembly

Small Channel-Setting Guide

The smaller of the two basic channel-setting guides is designed for use with small burs that have tapered shanks below the bur head. Because the tip area of the small channel-setting guide is smaller than the 3/32" (2.35mm) bur shank, the guide will prevent burs from slipping or going too deep into the channel. Burs cannot be removed or inserted from the top of the small channel guide.

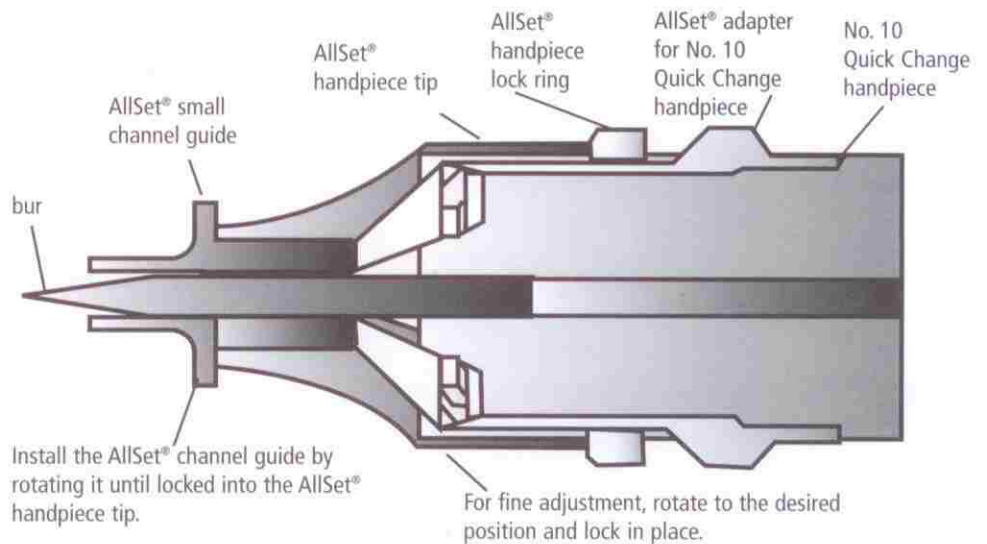
Larger Guides

The large Channel Guide, Knife-edge Guide and Easy-Cut Prong Guide are designed to allow burs to be inserted and removed through the top of the guide. When mounting the Easy-Cut Prong Guide on the Nos. 10 and 18 handpieces, first screw on the threaded washer onto the Easy-Cut Prong Guide. Then screw in the Easy-Cut Prong Guide into the Adapter Assembly.

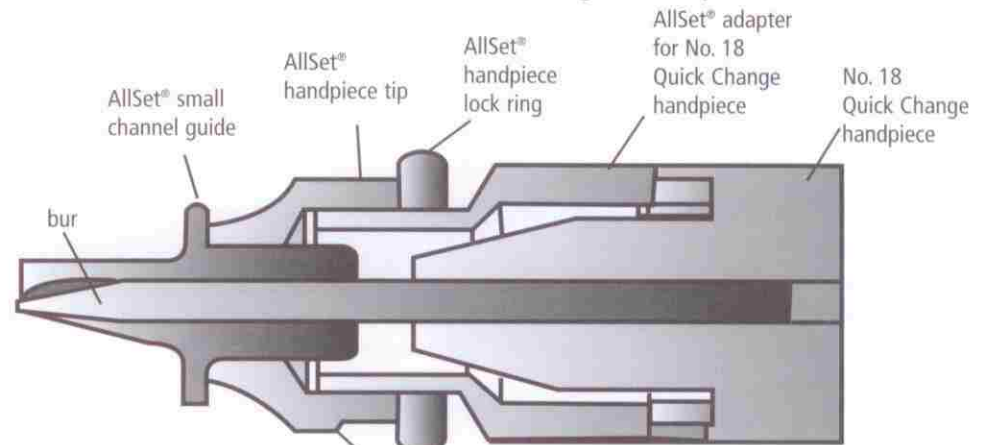
Adjusting the Guide

Adjust the guide to the desired depth of cut by unscrewing the AllSet® handpiece tip (with attached guide) and tightening into place by adjusting the lock ring snug up against the handpiece tip.

Kit AK841 for the No. 10 Quick Change handpiece

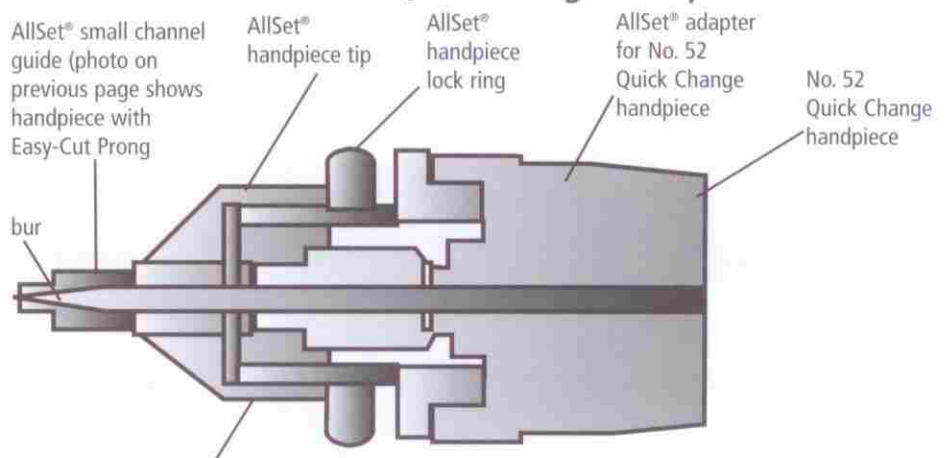


Kit AK839 For the No. 18 Quick Change handpiece



For fine adjustment, rotate to the desired position and lock in place.
Fine adjustment capability from the position shown:
Tip may move in 0.7mm or out 2.3mm. Total movement: ±1.5mm

Kit AK840 for the No. 52 Quick Change handpiece



Fine adjustment capability from the position shown:
Tip may move in 0.7mm or out 2.3mm.
Total movement: ±1.5mm

II. The Easy-Cut Prong Guide

The AllSet® Easy-Cut Prong Guide helps ensure straight, uniform cuts on each prong—every time! It's completely adjustable and positions the setting precisely so the bur won't grab or roll itself around the prongs, causing scratches. It adjusts to any stone shape and size. Perfect for 45°, 70° and 90° cuts, it allows you to cut perfect seats in the prongs of large pendants, basket settings, solitaire mountings and much more. An adjustable guide in back controls the depth of cut as well.

Use the Easy-Cut Prong Guide to:

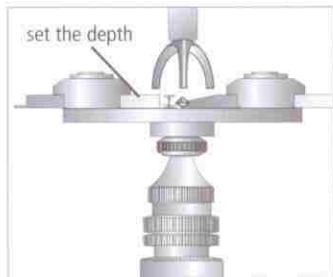
- cut perfectly level stone seats regardless of the setting shape.
- gain precise, accurate control over the depth of cut so that finished prongs are stronger.
- reduce stone breakage because you don't have to force prongs while setting.

Using the Easy-Cut Prong Guide:

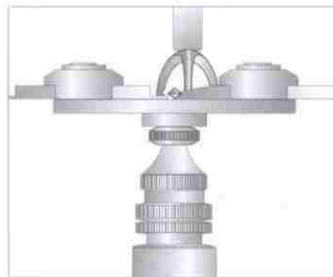
1. Make sure all prongs are at the same angle. File the tops of the prongs so they are the same height and level with one another.
2. Choose a low-speed bur that will make a cut appropriate for the stone (usually a 90° hart bur). Fine cut, low speed burs will work the best without chatter and skip.
3. Make the cuts by moving the prongs across the bur, perpendicular to the inward direction of the cut. Cut about a third of the way into the prong, depending on the thickness of the prongs.

Many large colored stones have extra thick girdles or some other irregularity. You will have to judge if cuts need to be wider or at different levels. Be sure to mark the stone and the setting for position as you try the fit and make adjustments. Well cut stones benefit from settings made with AllSet® guides because there is little or no unusual torque or pressure from uneven cuts.

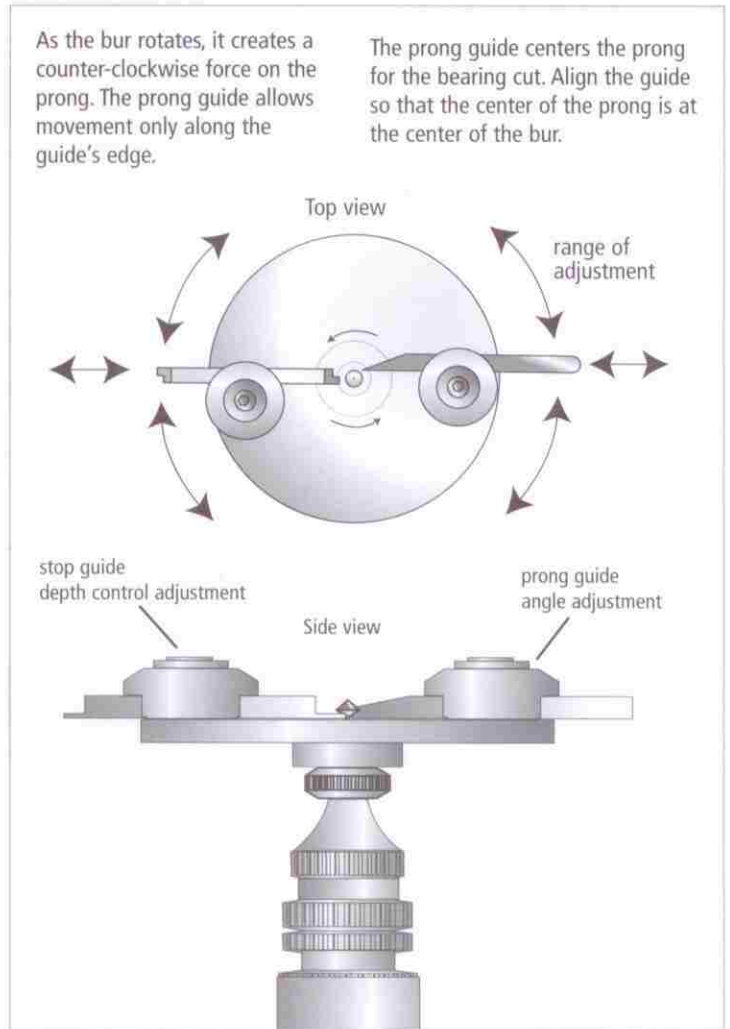
Please Note: When using the Easy-Cut Prong Guide with the No. 18 handpiece, attach the knurled spacer knob (included) onto the guide plate threads and use the knob to control the height of the bur.



Adjust the bur's height for the proper stone set.



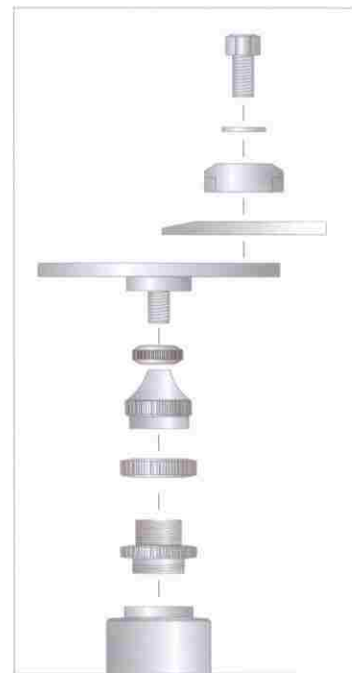
Position the piece on the table using the prong guide and depth control guide. Rotate the bur slowly at first while making the cut into the prong.



Assembled view showing guide adjustments.

As the bur rotates, it creates a counter-clockwise force on the prong. The prong guide allows movement only along the guide's edge.

The prong guide centers the prong for the bearing cut. Align the guide so that the center of the prong is at the center of the bur.



Exploded view of the Easy-Cut Prong Guide and Quick Change Adapter using the Nos. 10 or 18 handpiece.



Check to be sure that the piece sits level on the table without wobbling.



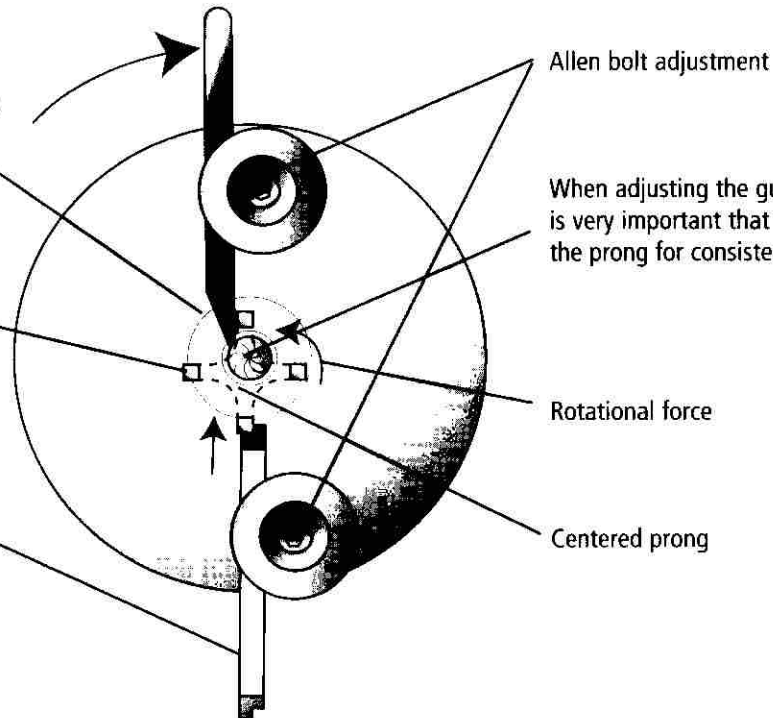
Make sure each prong is at the same angle and the same length. File the top of the prongs flat.

The Easy-Cut Prong Guide offers a wide range of adjustability.

The end of the fence guide should be positioned slightly underneath the bur. This will prevent the prong from slipping between the bur and the guide.

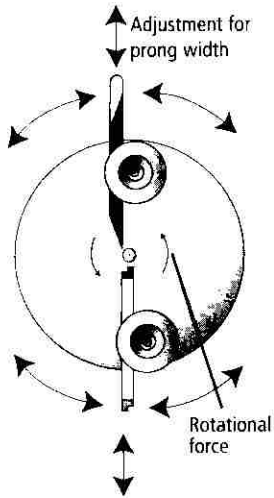
Prong setting with prong tips on the table

The stop guide (depth control) is not necessary for all settings. Use it whenever the depth of the prong cut is critical to the setting.

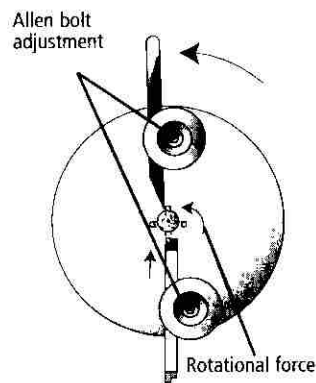


When adjusting the guide for prong width, it is very important that the bur is centered with the prong for consistent and straight cuts.

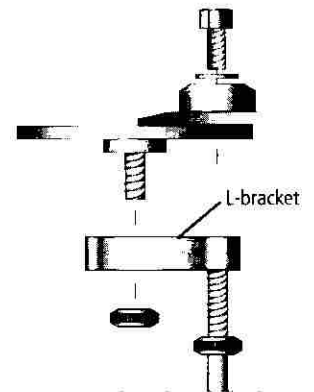
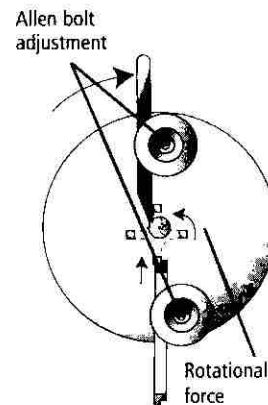
Adjustment for prong height



Adjustment for smaller settings/prongs

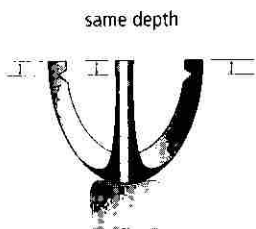


Adjustment for larger settings/prongs

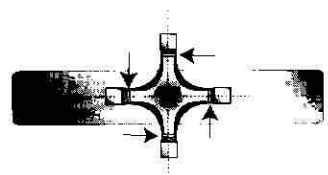


Easy-Cut Prong Guide with the L-bracket mounted on a No. 30^o handpiece.

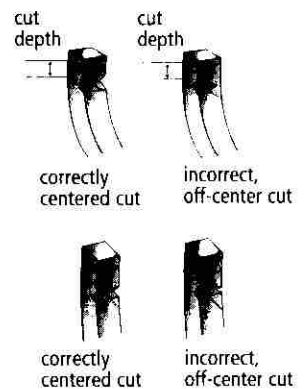
The Easy Cut Prong Guide produces consistent settings with perfectly even height and depth cuts.



Side view of ring setting showing center cut prongs with evenly cut heights.

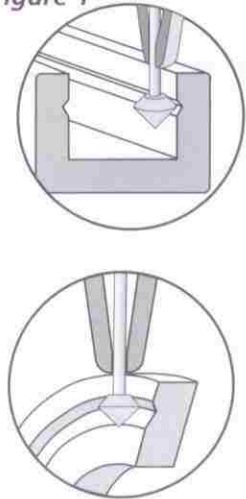


Top view of ring setting showing center cut prongs with evenly cut heights.



Views of cut prongs (Easy-Cut Prong Guide vs. uneven freehand cutting)

Figure 1



Cut continuous channels on straight or contoured pieces.



III. Channel-Setting Guides

The AllSet® channel-setting guides allow you to cut perfect channels with precisely the same depth on each side of the channel for level stone setting. The set includes three adjustable depth channel-setting guides for all applications.

- The rounded tips of the two basic guides (small and large) make it easy to cut continuous channels on straight or contoured pieces (Figure 1).
- The new double knife edge guide ensures perfect spacing of separated stones.

Please Note: The smaller of the two basic channel-setting guides is designed for use with small burs that have tapered shanks below the bur head. Because the tip area of the small channel-setting guide is smaller than the 3/32" (2.35mm) bur shank, the guide will prevent burs from slipping or going too deep into the channel. Burs cannot be removed or inserted from the top of the small channel guide.

The large channel guide is designed to accommodate larger burs, such as ball burs, and is especially useful in setting stones with thicker girdles.

Channel-Setting Tips:

Square Stones

For setting stones that will touch, you can cut a continuous channel (Figure 1). Choose a hart bur with a diameter that will cut a channel to the proper depth in the material for the diameter of the stones you are using. Select one of the two basic channel guides (small and large) for the size bur you are using (see note above). Adjust the distance between the guide tip and the cutting edge of the bur to the desired position of the channel. Cut each channel, making sure to keep the handpiece perpendicular to the material.

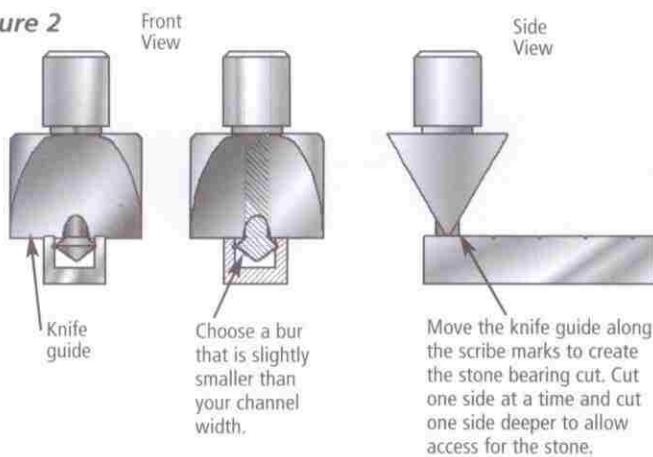
Round Stones (using the knife guide)

For a setting where there will be a space between round stones, choose a hart bur that is slightly smaller than the diameter of the stone (Figure 2). Scribe deep center marks on top of the channel wall and use the knife edge channel setting guide as illustrated (side view). Cut individual seats for each stone by sliding the guide from one side to the other in the groove made by the scribe. When setting the depth of the seat, be sure to allow a little extra wall height for filing out the scribe marks (file out the scribe marks before hammering). Set the stones in the channel (Figure 3). File the outside channel wall at a 30° angle and hammer the top inside edge (not the outside) to tighten the material over the stones.

Hint:

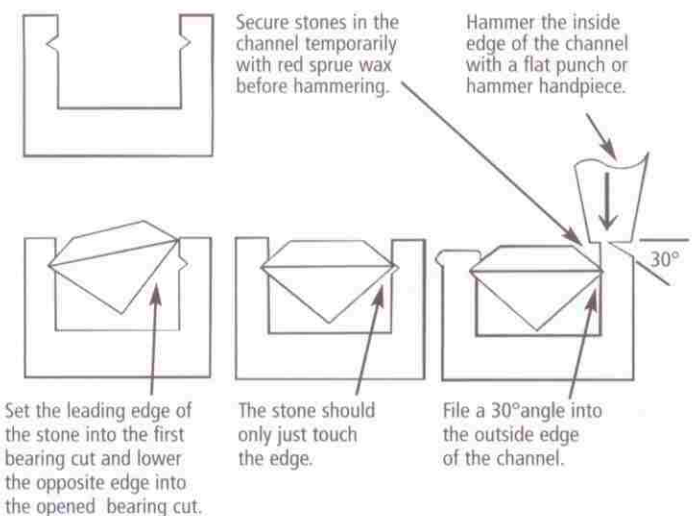
Be sure to thoroughly clean shavings and metal debris out of the setting before putting the stone in place.

Figure 2



Remove just enough of the corner edge to allow the stone to pass as it is set into the channel. For deep or thick-girdled stones, the lower corner edge may also be removed (use a bur or graver to preserve smooth edges on the bearing cut).

Figure 3



Customize Your Own Setting Operation with AllSet® Kits!

Customize your AllSet® just the way you want it! Choose exactly what you need to maximize your efficiency and guarantee great results. If you already have a Foredom® handpiece or some of the equipment included in the kits, just add the AllSet® components you want from the selection below.



Master Kit **AK820**
Includes a No. 30° handpiece, AllSet® Basic Guide Assembly, complete set of guides, instruction manual, and video.



Model-Maker's Milling Assembly **AK842**
Multi-purpose milling accessory for working in metal and wax. Includes AllSet® handpiece attachments. Handpiece sold separately.

Master Kit **AK820SJ**
With Foredom No. 30SJ handpiece.

Master Kit **AK825**
Without Foredom No. 30° handpiece.



Fence Guide Kit **AK844**
Converts the milling assembly (AK842 above) into a fully operational table saw and planer. Use with cutters and burs to cut, grind or plane gold, platinum, silver, wax and more. Handpiece sold separately.



Prong-Setting Kit **AK826**
Includes AllSet® Basic Guide Assembly for the No. 30° handpiece, 13 prong-setting guides, guide locking nut, Allen wrench and instructions—all in a fitted box.

Set of Prong Guides Only **AK827**



Channel-Setting Kit **AK828**
Includes AllSet® Basic Guide Assembly for the No. 30°, three channel-setting guides, (small, large for baguette and knife-edge), guide locking nut, Allen wrench and instructions—in a fitted box.

Set of Channel Guides Only **AK829**



Sander/Planer Kit **AK846**
Grind, sand and polish with this compact sander. Adjusts easily from 0° to 90° angle and has three-position guide for compound angles. Works with the No. 30° handpiece. Includes planer attachment, a complete set of 3M sanding/lapping films, Trizact A5 disc, and AllSet® handpiece attachments. Handpiece sold separately.



Pavé-Setting Kit **AK832**
AllSet® Basic Guide Assembly for the No. 30° handpiece, seven pavé guides, guide locking nut, Allen wrench and instructions—all in a fitted box.

Set of Pavé Guides Only **AK833**



Easy-Cut Prong Guide Kit **AK847**
AllSet® 2" prong guide table, depth and prong guide, guide locking nuts, Allen wrench and instructions—in a fitted box. Handpieces and Basic Guide Assembly sold separately.



AllSet® Adapter **AK845**
Get easy, hands-free operations for many configurations when used with the milling assembly (AK842) or Sander/Planer (above). Adjusts to various angles, heights and positions. Slides into a GRS mounting plate (sold separately).

The AllSet® Accessory Video **VID125**
AllSet® co-inventor, award-winning jeweler and tool designer, Jeffrey Mathews, shows you how to use this revolutionary system to speed stone setting and increase accuracy. VHS, 31 minutes. **PAL Version** **VID126**

Quick Change Adapter Kits for use with Handpiece Nos. 10, 18, and 52



Quick Change Adapter Kit **AK841 for No. 10 Handpiece**
Includes AllSet® threaded handpiece adapter, Easy-Cut prong guide and three channel setting guides: small, large (for baguette settings) and a knife-edge guide. No. 10 handpiece sold separately.



Quick Change Adapter Kit **AK839 for No. 18 Handpiece**
Includes AllSet® threaded handpiece adapter, Easy-Cut prong guide and three channel setting guides: small, large (for baguette settings) and a knife-edge guide. No. 18 handpiece sold separately.



Quick Change Adapter Kit **AK840 for No. 52 Handpiece**
Includes AllSet® threaded handpiece adapter, Easy-Cut prong guide and three channel setting guides: small, large (for baguette settings) and a knife-edge guide. No. 52 handpiece sold separately.

FOREDOM® www.foredom.com
The Foredom Electric Company, Bethel, CT USA 06801