

MODEL 317

INSTRUCTIONS

# Sportsman™

## Xtreme™

### Diamond Hone® Sharpener



Read these instructions before use.  
It is essential that you follow these  
instructions to achieve optimum results.

## IMPORTANT SAFEGUARDS

**When using electrical appliances, basic safety precautions should always be followed including the following:**

1. Read all instructions.
2. To protect against electrical hazards do not immerse the Chef'sChoice® in water or other liquid.
3. Make sure that only clean knife blades are inserted in the Chef'sChoice®.
4. Unplug from outlet when not in use, before putting on or taking off parts and before cleaning.
5. Avoid contacting moving parts.
6. Do not operate any appliance with a damaged cord or plug or after the appliance malfunctions, or is dropped or damaged in any manner.

**U.S. customers:** You may return your sharpener to EdgeCraft's factory for service where the cost of repair or electrical or mechanical adjustment can be estimated. When the electrical cord on this appliance is damaged, it must be replaced by the Chef'sChoice distributor or other qualified service to avoid the danger of electrical shock.

**Outside the U.S.:** Please return your sharpener to your local distributor where the cost of repair or electrical or mechanical adjustment can be estimated. If the supply cord of this appliance is damaged, it must be replaced by a repair facility appointed by the manufacturer because special tools are required. Please consult your Chef'sChoice distributor.

7. CAUTION! "This appliance may be fitted with a polarized plug (one blade is wider than the other). To reduce the risk of electric shock, this plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician. *Do not modify the plug in anyway.*"
8. The use of attachments not recommended or sold by EdgeCraft Corporation may cause fire, electric shock, or injury.
9. The Chef'sChoice® Model 317 is designed to sharpen most sports knives, pocket knives and kitchen knives. Do not attempt to sharpen scissors, ax blades or any blade that does not fit freely in the slots.
10. Do not let the cord hang over edge of table or counter or touch hot surfaces.
11. When in the "ON" position (Red flash on switch is exposed when "on") the Chef'sChoice® should always be on a stable countertop or table.
12. WARNING: KNIVES PROPERLY SHARPENED ON YOUR CHEF'SCHOICE® WILL BE SHARPER THAN YOU EXPECT. TO AVOID INJURY, USE AND HANDLE THEM WITH EXTREME CARE. DO NOT CUT TOWARD ANY PART OF YOUR FINGERS, HAND OR BODY. DO NOT RUN FINGER ALONG EDGE. STORE IN A SAFE MANNER.
13. Do not use outdoors.
14. Close supervision is necessary when any appliance is used by or near children.
15. Do not use honing oils, water or any other lubricant with the Chef'sChoice®.
16. For household use only.
17. **SAVE THESE INSTRUCTIONS.**

# YOU MADE A GOOD CHOICE

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Outdoor enthusiasts, professional chefs and serious cooks world-wide rely on Chef'sChoice® Diamond Hone® sharpeners to maintain high performance multi-bevel edges on their favorite cutlery. Now with your Chef'sChoice® Sportsman Xtreme Model 317 you will share the professional's advantage with knives of astonishing sharpness and durability. The Xtreme™ 317 incorporates the latest sharpening technology developed by EdgeCraft—including a guide system particularly designed to easily sharpen thick hunting and tactical knives, in addition to all your other knives.

You will find the Model 317 extremely fast and simple to use. It is safe to use on all quality sporting, kitchen and pocket knives. Please read this instruction booklet thoroughly before you use the sharpener in order to optimize your sharpening results.

As an owner of the Xtreme™ 317 you have the means to create edges of a perfection, sharpness and durability heretofore unobtainable with even the world's most expensive commercial sharpening systems. You will find it is a joy to sharpen and use your knives. Remember, a sharp knife is a safe knife because you expect it to be sharp, you respect it and it requires less force to cut. But remember, the edge is incredibly sharp!

The Chef'sChoice® Diamond Hone® 317 sharpener creates demonstrably superior multifacet edges on knives of any steel - carbon, stainless, or alloy of any hardness. Edges sharpened on the Model 317 are much sharper and stay sharp longer than conventional and hollow ground edges.

You can easily and very quickly sharpen the entire cutting edge of your favorite knives, from the tip to the handle or bolster. The highly precise edges will reward you with years of superior knife performance.

# **UNDERSTANDING THE XTREME™ 317 DIAMOND HONE® SHARPENER**

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The unique Chef'sChoice® Diamond Hone® Sharpener is designed to sharpen knives with either straight or serrated edges. This two (2) stage sharpener has a precision conical sharpening / honing stage with fine 100% diamond abrasives and a unique polishing/stropping stage using proprietary flexible abrasive disks. This combination can be used to create either an astonishingly sharp, smooth faceted edge for effortless cutting and presentations or one with a selected amount of residual "bite" along the facets.

The sharpening and honing actions are controlled by using precisely angled guides for the blade and precisely matched conically surfaced abrasive disks. The sharpening angle is slightly larger in Stage 2 than in Stage 1.

Fine diamond-coated conical disks in Stage 1 create microgrooves along the facets on each side of the edge establishing the first angled bevel of the edge.

In Stage 2 ultrafine abrasive disks polish and strop the facets immediately adjacent to the edge creating a microbevel and establish a microscopically thin straight and super polished edge of astonishing sharpness. The stropping action simultaneously polishes and sharpens the boundaries of those microgrooves created by the diamond abrasives in Stage 1, adjacent to the edge, until they become sharp micro flutes that will assist the cutting action with "difficult to cut" materials.

This unique two stage design gives you an edge of remarkable sharpness and because of the second angle bevel it creates, you will note knives stay sharp longer than those sharpened by conventional methods.

The following sections describe the general procedures for optimal sharpening. One of the important advantages of using the Xtreme™ 317 is that you can strop and polish your knives to razor sharp edges as often as needed and yet experience little knife wear compared to older sharpening methods. Resharpener can commonly be done by using just the stropping action of Stage 2. (See Resharpener Section).

The Xtreme™ 317 Sharpener is equipped with manually activated diamond dressing pads that can be used if necessary to clean any accumulated food or sharpening debris off the surface of the polishing/stropping disks. We strongly urge you to clean knives before sharpening them. You will find you can go months or over a year before you need to dress these disks. Only if you sense a distinct decrease in polishing efficiency will there be any need to use this convenient feature described further in a subsequent section.

Each sharpening Stage is equipped with elastomeric profiled guide springs positioned over the sharpening disks to provide a spring action that holds the face of your knife securely against the precision guides in the right and left slots of each stage during sharpening.

You will want to sharpen equally in the right and left slots of each stage you use. This will ensure that the facets on each side of the edge are of equal size and that the edge will cut straight at all times.

When sharpening in either stage, the knife should, on sequential strokes, be pulled alternately through the left slot and the right slot of that Stage. Generally only one or two pairs of pulls (alternating in the left and right slots) will be adequate in each stage (see subsequent sections for more detail). Always operate the sharpener from the front side. Hold the blade horizontal and level and slide it down between the plastic spring and the guide plane while pulling it toward you at a uniform rate as it contacts the sharpening or stropping disk. You will be able to feel and hear the contact with the disk as it is made. Always keep the blade moving uniformly through each stage; do not stop the pull in mid stroke. Consistently pull at a speed of about 5 seconds per stroke for an eight (8) inch blade. The time can be less for shorter blades and more for longer blades.

Never operate the sharpener from the back side.

Use just enough downward pressure when sharpening to ensure uniform and consistent contact of the blade with the abrasive disks on each stroke. Additional pressure is unnecessary and will not speed the sharpening process. Avoid cutting into the plastic enclosure. Accidental cutting into the enclosure will not functionally impact operations of the sharpener or damage the edge.

Figure 1 below identifies each of the two stages as described further in the following sections.

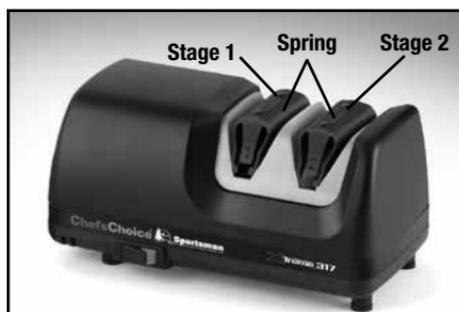


Figure 1. Model Xtreme™ 317 Diamond Hone® Sharpener.

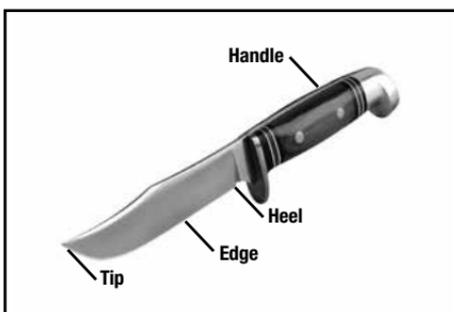


Figure 2. Typical hunting knife.

# INSTRUCTIONS

## **READ THIS BEFORE YOU START TO SHARPEN**

The Xtreme™ Model 317 is designed to sharpen most tactical, hunting, pocket, kitchen or serrated edge blades.

1. **Sharpen Serrated Blades Only in Stage 2.** Do not sharpen serrated blades in Stage 1 until you read section titled Procedure for Sharpening Serrated Blades.
2. **Straight Edge Blades are sharpened in Stages 1 and 2.** Start in Stage 1 if the knife is being sharpened for the first time or if the knife is very dull. See following Section for more details.

## **PROCEDURE FOR SHARPENING STRAIGHT EDGE BLADES**

### **STRAIGHT EDGE BLADES: SHARPENING FIRST TIME**

Before you turn on the power, slip a knife blade smoothly into the slot between the left angle guide of Stage 1 and the elastomeric spring. Do not twist the knife. (See Figure 3.)

Move the blade down in the slot until you feel it contact the diamond disk. Pull it towards you lifting the handle slightly as you approach the tip. This will give you a feel for the spring tension. Remove the knife and press the Power Switch. A red “indicator” on the switch appears when this switch is turned “ON.”

**Stage 1:** If you are sharpening a knife for the first time, start in Stage 1. Pull the knife once through the left slot of Stage 1 (Figure 3) by slipping the blade between the left angle guide and the polymeric spring while pulling the blade toward you and simultaneously moving the blade downward in the slot until it engages the diamond coated disk. You will hear it make contact with the disk. Insert the blade as close as possible to its bolster or handle. If the blade is curved, lift the handle slightly as you sharpen near the tip of the knife, keeping the blade edge approximately parallel to the table. Sharpen the entire blade length. For an eight (8) inch blade each pull should take about 6 seconds. Pull shorter blades through in 3-4 seconds and longer blades in 8 seconds. Next, repeat with one full length pull in the right slot of Stage 1.

*Note:* Each time you insert the blade, simultaneously pull the blade toward you. Never push the blade away from you. Apply just enough downward pressure to make contact with the wheel – added pressure does not speed up the sharpening process.



Figure 3. Stage 1. Inserting blade in slot between guide and elastomeric spring. Alternate individual pulls in left and right slots.



Figure 4. Inserting blade in right slot of Stage 1.

To ensure uniform sharpening along the entire blade length, insert the blade near its bolster or handle and pull it at a steady rate until it exits the slot. Always make an equal number of pulls alternating one pull in the left slot and then one pull in the right slot in order to keep the edge facets symmetrical. Generally in Stage 1 you will find that only 3-4 pairs of alternating pulls is adequate.

Before moving to Stage 2 you will find it helpful to confirm that a burr (see Figure 5) exists along one side of the edge. To check for the burr, move your forefinger carefully across the edge as shown. (Do not move your finger along the edge – to avoid cutting your finger). If the last pull was in the right slot, the burr will appear only on the right side of the blade (as you hold it) and vice versa. The burr, when present, feels like a rough and bent extension of the edge; the opposite side of the edge feels very smooth by comparison. If a burr exists along the entire edge, proceed to Stage 2.

If no burr exists, make one (1) additional pull in the left and right slots of Stage 1 before proceeding to Stage 2. Slower pulls will help you develop the burr. Confirm the presence of the burr and proceed to Stage 2. It is always necessary to create the burr in Stage 1 before stropping in Stage 2.

If the knife is extremely dull, additional pulls in Stage 1 may be needed before proceeding to Stage 2.

**Stage 2:** In general only 2-3 pairs of alternating pulls in Stage 2 will be necessary to obtain a razor sharp edge. Make alternate pulls in left (Figure 6) and right slots pulling the knife through the slots at the same speed used in Stage 1.

Added pulls in Stage 2 will refine the edge further. Fewer pulls in Stage 2 may be preferable if you will be cutting fibrous foods, detail in the following sections.

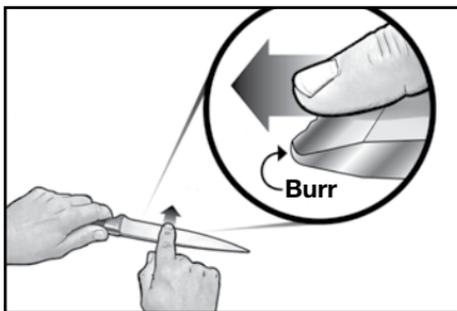


Figure 5. Develop a distinct burr along knife edge before stropping in stage 2. Burr can be detected by sliding finger across and away from the edge. Caution! See text.



Figure 6. Inserting blade in left slot of Stage 2. Alternate individual pulls in left and right slots.

# OPTIMIZING THE KNIFE EDGE

## **FOR GAME, FISH AND FIBROUS MATERIALS**

For cutting more fibrous materials you may find it advantageous to sharpen in Stage 1 – followed directly by only one alternating pair of pulls in Stage 2. This will leave sharpened microflutes along the facets nearer to each side of the edge (Figure 8) that will assist in the cutting of such materials.

To prepare this type edge, sharpen in Stage 1 until a burr is developed along the entire edge. Then move to Stage 2 and make just one pair of pulls.

To resharpen this type of edge, sharpen in Stage 1 until you develop a burr and then make one pair of pulls in Stage 2.

## **PROCEDURE FOR SHARPENING SERRATED BLADES**

Serrated blades are available in multiple sizes and shapes and can include full length and partial length serrations. Serrations are formed by the manufacturers based on their design criteria, by grinding scalloped depressions, or grooves on only one side of the blade.

The Model 317 sharpener will restore the pointed teeth of the serrations, which do most of the cutting, and develop sharp microblades along the edge of these teeth.

If your serrated blade edge has light wear, then only minimal effort is required to re-sharpen the edge, using only Stage 2 (see Figure 9). First you need to establish on which side of the blade the serrations are formed. If the serrations are on the right side of the blade (as you would hold the knife when cutting) then re-sharpen the blade in the right slot of Stage 2. Slowly pull the knife (about 4-5 seconds per pull for an 8” blade, less for shorter blades and more for longer ones) through the sharpener. The stropping/polishing disk in Stage 2 will only sharpen the non-grooved side of the blade.

After 5 to 6 slow pulls through the right slot, finish by slowly pulling the knife through left slot of Stage 2, two times. Then check the edge for sharpness. The above process may be repeated 2 to 3 times to get the desired results.

If the serrations are ground on the left side of the blade, then start by re-sharpening the blade in the left slot of Stage 2, with 5 to 6 slow pulls, finishing with two slow pulls in the right side of Stage 2.

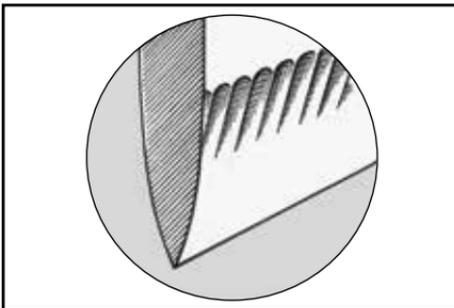


Figure 7. A larger polished facet adjacent to edge is ideal for gourmet preparations.

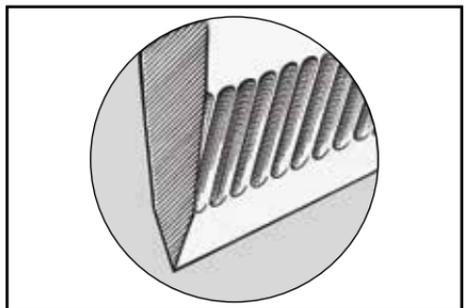


Figure 8. Retention of larger microflutes adjacent to edge helps when cutting fibrous foods.

If the serrated edge is extremely worn or severely damaged, then the knife should first be pre-sharpened in Stage 1. In this stage only sharpen the non-grooved side of the serrated blade, as follows:

If the grooved serrations are on the right side of the blade (as you would hold the knife when cutting), then only use the right slot of Stage 1. The reverse applies if the grooved serrations are on the left side of the blade.

Only make 1 or 2 quick pulls (about 1 to 2 seconds each), through the appropriate slot of Stage 1. Then move on to Stage 2 and complete the sharpening as previously described in this section.

#### **DRESSING TOOL FOR CLEANING OF STROPPING/POLISHING DISKS – STAGE 2**

The Xtreme™ 317 is equipped with a built-in accessory to manually clean/dress the stropping disks in Stage 2. In the event these disks become glazed with grease, food or sharpening debris, they can be cleaned and reshaped by actuating the manual lever on the rear of the sharpener. This lever is located within a recess as shown in Figure 10 on the left lower corner as you face the rear of Model 317.

To actuate the cleaning/dressing tool, make sure the power is on and simply press the small lever in the recess to the right or left and hold for 3 seconds. Then press the lever in opposite direction and hold for 3 seconds. When the lever is moved in one direction, the dressing tool cleans and reshapes the active surface of one stropping/polishing disk. By moving in the opposite direction you clean the other disk.

Use this clean/dress accessory only if and when Stage 2 no longer appears to be sharpening well or when it takes too many pulls to obtain a razor sharp edge. Using this tool removes material from the surface of the Stage 2 disk and hence if used excessively will unnecessarily remove too much of the abrasive surface – wearing the disks out prematurely. If that should occur, factory replacement of the disks will become necessary.

If you clean knives regularly before sharpening, you will need to clean or dress the Stage 2 disks only about once a year or perhaps less frequently.

#### **RESHARPENING (SEE PREVIOUS SECTIONS)**

Resharpener straight edge knives whenever practical using Stage 2. When that fails to quickly resharpen, return to Stage 1 and make one or two pairs of alternating pulls. Check for a burr along the edge and then return to Stage 2 where only one to two alternating pair of pulls will be adequate to put a new razor-like edge on the knife.

Resharpener serrated blades in Stage 2. See sections above.



Figure 9. Sharpen serrated blades only in Stage 2. Blade shown with serrations on left side of blade. (See instructions).



Figure 10. Stage 2 disks can be cleaned if necessary. Use infrequently. (See instructions).

## SUGGESTIONS

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1. Always clean all food, fat, and foreign materials from knife before sharpening or resharpening. If soiled, wash the blade before sharpening.
2. Use only light downward pressure when sharpening – just enough to establish secure contact with the abrasive disk.
3. Always pull the blades at the recommended speed and at a constant rate over length of blade. Never interrupt or stop the motion of the blade when in contact with the abrasive disks.
4. Always alternate individual pulls in right and left slots (of any stage used). Specialized Japanese blades are an exception and are sharpened primarily on one side of the blade.
5. The edge of the knife blade, while sharpening, should be held in a level position relative to the top of the counter or table. To sharpen the blade near the tip of a curved blade, lift the handle up slightly as you approach the tip so that each section along the curved length of the edge as it is being sharpened is maintained “level” to the table.
6. There is no need or advantage to using a “sharpening steel” on knives sharpened on the Xtreme™ 317. Consider resharpening with the manual Chef’sChoice® sharpener Model 464 if you are using knives at a remote location away from electrical power. It is recommended that you keep the Model 317 readily accessible and resharpen often, as described in the Sections above.
7. Used correctly, you will find you can sharpen the entire blade to within 1/8” of the bolster or handle. This is a major advantage of the Xtreme™ 317 compared to other sharpening methods – especially important when sharpening chef’s knives where you need to sharpen the entire blade length in order to maintain the curvature of the edge line. If your chef’s knives have a heavy bolster near the handle extending to the edge, a commercial grinder can modify or remove the lower portion of the bolster so that it will not interfere with the sharpening action allowing you to sharpen the entire blade length.
8. To increase your proficiency with the Xtreme™ 317, learn how to detect a burr along the edge (as described on page 7w). While you can sharpen well without using this technique, it is the best and fastest way to determine when you have sharpened sufficiently in Stage 1. This will help you avoid oversharpening and ensure incredibly sharp edges every time. Cutting a tomato or a piece of paper is a convenient method of checking for blade sharpness.

## **NORMAL MAINTENANCE**

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**NO** lubrication is required for any moving parts, motor, bearings or sharpening surfaces. There is no need for water on abrasives. The exterior of the sharpener may be cleaned by carefully wiping with a damp cloth. Do not use detergents or abrasives.

Once a year or so as needed, you can remove metal dust that will accumulate inside the sharpener from repeated sharpenings. Remove the small rectangular clean-out cover (Figure 11) that covers an opening on the underside of the sharpener. You will find metal particles adhered to a magnet attached to the inside of that cover. Simply rub off or brush off accumulated filings from the magnet with a paper towel or tooth brush and reinsert the cover in the opening. If larger amounts of metal dust have been created or if the Stage 2 disk has been cleaned (using the cleaning/dressing tool) you can shake out any remaining dust through the bottom opening when the cover is removed. After cleaning, replace the cover securely with its magnet in place.

## **SERVICE**

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In the event post-warranty service is needed, return your sharpener to the EdgeCraft factory where the cost of repair can be estimated before the repair is undertaken. Outside the USA, contact your retailer or national distributor.

Please include your return address, daytime telephone number and a brief description of the problem or damage on a separate sheet inside the box. Retain a shipping receipt as evidence of shipment and as your protection against loss in shipment.

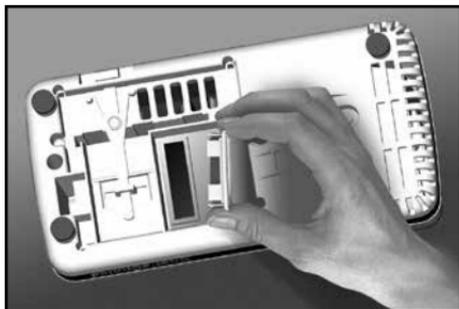


Figure 11. Clean-out cover.

# EdgeCraft

World Leader in Cutting Edge Technology®

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