

Instructions For Use of Your

PT50 Sharp ✓

manufactured by

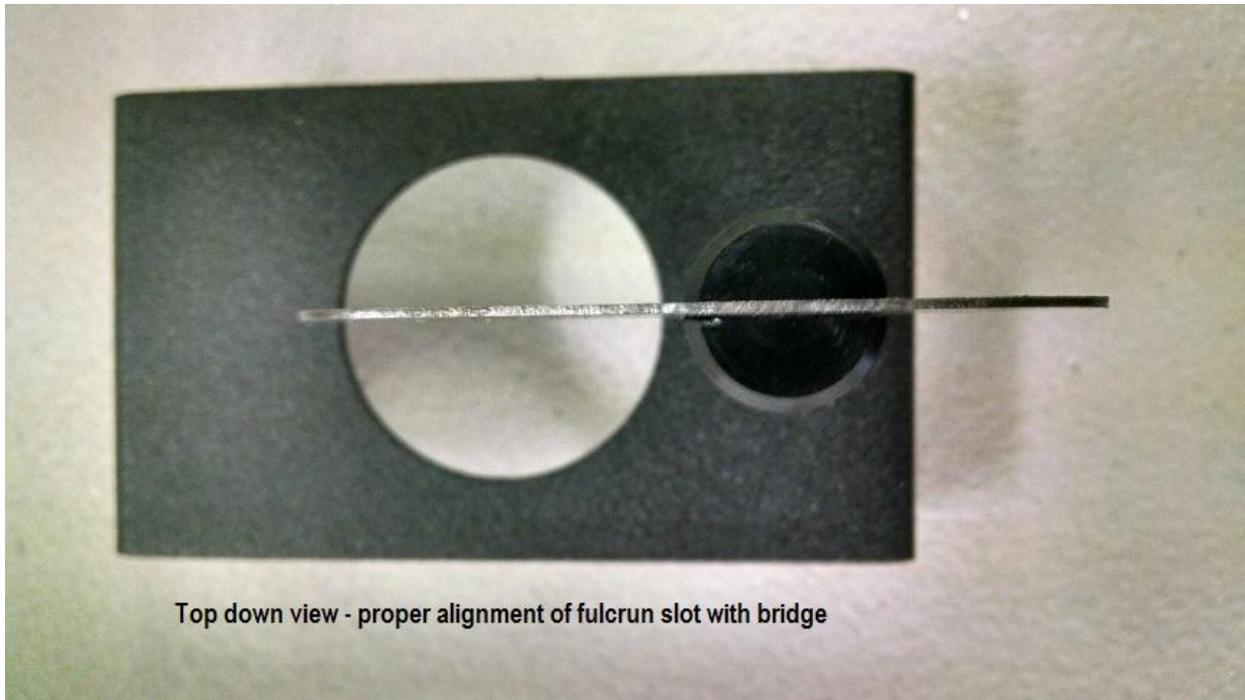
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SHARP ✓ PT50



Thank you for purchasing a PT50 Sharp ✓. From now on you will always know precisely how sharp the edges on your best knives really are. Sharp ✓ determines the sharpness of edges the same way you do - by measuring the amount of force required to cut through a medium. When a knife requires the application of a great amount of force to cut or slice through a material then you know that it is dull. In that same manner Sharp ✓ measures, very precisely, the force required to sever a carefully engineered standard test media. The number displayed by the PT50 after a test is completed will be your BESS C scale score. Please consult the graph at the end of this manual for more information on the BESS. This number represents the number of grams of pressure required to sever the test media with your knife. The lower the number the sharper the edge. The PT50 displays pressure readings in 5 gram increments from 0 - 2000 grams.

The PT50 is a simple three button operation. The calibration and mode buttons on the PT50 are used in the factory for set-up and test purposes. The button on the right is the **on/off** button and the button on the left **zero's** the instrument. Pressing the SHARP✓ button places the instrument in sharpness test mode . You'll always know when the instrument is in test mode via the blue back lit display. Although you will typically try to begin the measurement process with the display sitting at zero, in fact, zeroing is not always required nor necessary. The measurement system employed by Sharp ✓ is a "greater than" methodology meaning that the instrument is always looking for the maximum amount of pressure applied to the test media during any one measurement event. As an example let's say that we are measuring a knife edge that will, eventually, require more than 300 grams of pressure to sever the test media. If the KT20 display is reading 100 grams when the measurement process begins, force applied to the test media by the knife edge will not begin to register until *more than* 100 grams of pressure is applied to it. So, in this case. whether or not the display reads "100" or "0" at the beginning of the measurement process has no effect on the final test result.



Assembly - The PT50 comes to you nearly fully assembled. Only the black plastic slotted fulcrum must be screwed onto the 1/4-20 threaded stud that extends from the black metal bridge. Spin the fulcrum onto the stud and hand tighten. Now use the provided metal key, inserted into the fulcrum slot, to turn the fulcrum tight. Only tighten the fulcrum enough to align the fulcrum slot with the center of the large hole in the bridge.

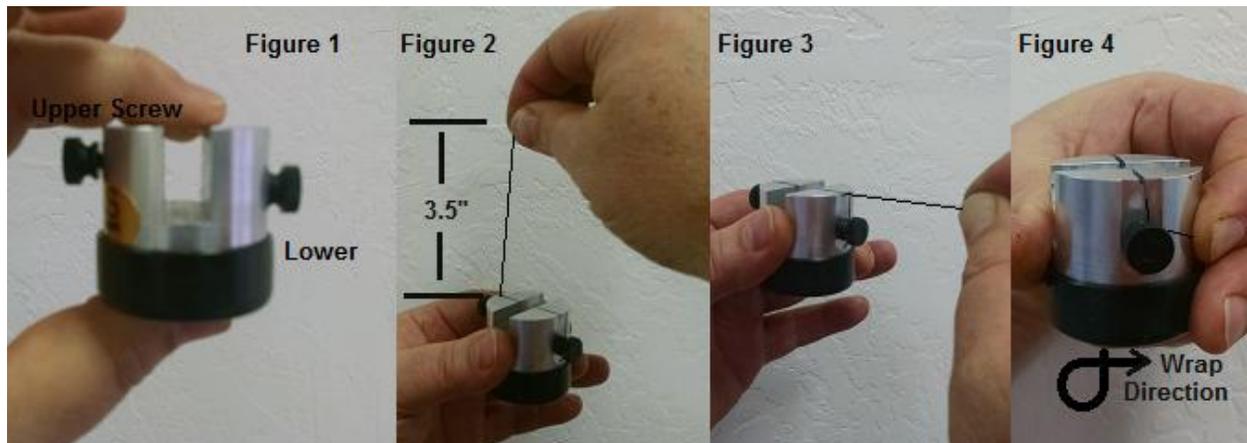
Battery - Two AA batteries are already installed in your PT50

The aluminum test fixture comes to you loaded with test media. You should have enough test media on the spool to conduct at least 100 tests. Make a visual inspection and mental note of how the test media is threaded across and around the fixture. Here is how you reload the test media after a test has been conducted:

Note: These instructions are written and pictured with the test fixture held in the left hand. You may switch this process if you are "other handed".

- 1.** Loosen both plastic thumb screws. In Figure 1 The top screw need only be backed off one full turn but the bottom (lower) screw should be backed out several turns. Remove and discard from around the lower screw, any residual test media that may be left over from a previous test
- 2.** In Figure 2 pull out about 3.5 inches of test media then retighten the top screw with only light pressure.
- 3.** In Figure 3 pull the test media across the top of the test fixture with the test media resting in the shallow groove.

4. In Figure 4 pull the test media end down and then around the threaded shaft with a clockwise motion. Make certain that test media remains seated in the groove while you are doing this. Wrap the test media one turn about the *threaded portion* of the screw.
5. Note in Figure 4 how the index finger of the left hand pinches and holds the test media against the side of the test fixture. This prevents slack from forming in the test media and frees the right hand to tighten the lower screw. Pinch the test media against the side of the fixture while you tighten the lower screw.



Reloading the test fixture will take less than ten seconds once you have mastered it. The goal here is to simply pull the test media across the gap in the fixture with no slack (slight tension) in the test media. Do not over tension the test media. Over tensioning is neither helpful nor necessary.

How to Position the Knife for Measurement

There are two possible mounting methods for your knife and either is acceptable. *Figure 5* shows a mounting method that allows sharpness levels to be measured very close to the knife handle and the *Figure 6* method will allow measurements very close to the tip or point of the knife. In either case the knife blade must be seated and remain seated (via downward pressure) in the fulcrum while the opposite end (handle or tip) is pushed or pulled down into the test media. The fulcrum acts like a hinge or pivot point for the knife blade and affords excellent control and safety during the testing process.



FIGURE 5

FIGURE 6

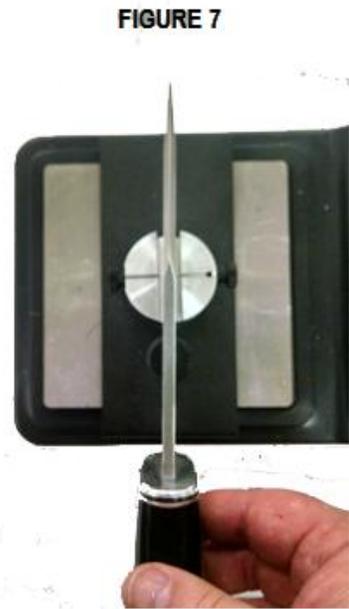


FIGURE 7

It makes no difference whether the upper or lower screw in the test fixture faces you. Just make certain the wide slot in the test fixture is squarely aligned with the narrow slot in the fulcrum. It is possible that some styles of knife blades will be too thick to seat in the bottom of the fulcrum slot but that is OK. Just make certain that the knife *edge* remains in the slot and that the sides of the knife blade are held in a vertical position during the measurement process. Don't let the side of the knife blade tip toward or away from you during the measurement process or it could skew your results slightly. *Figure 7* shows proper positioning of the knife, as viewed from above, during the measurement process. Blade vertical, fulcrum and test fixture slots aligned and centered.

Remember! We're not chopping carrots (at least not yet!) but measuring the sharpness of an edge. Your downward movement with the knife should be slow and deliberate. Try to find a seated position with arms resting on the worktop for greater control and stability. When the test media severs the measurement is complete.

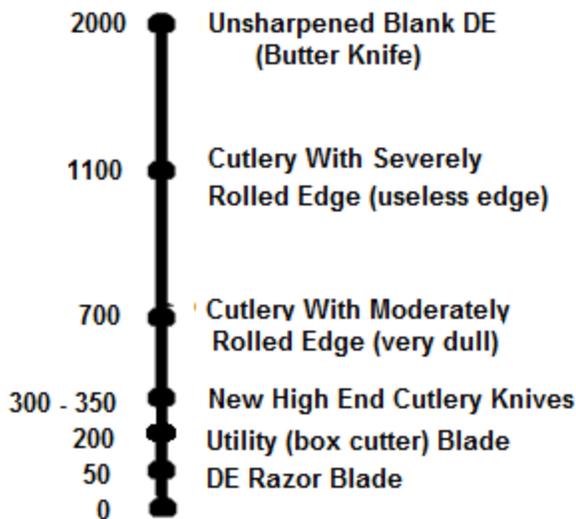
Pass/Fail Mode - This is a very fast and simple mode to operate your Sharp ✓ in. Let's say that you always want your kitchen cutlery to have a minimum sharpness level and let's say that that level is 350 (about the level most new kitchen cutlery is). Begin just as if you were going to take a normal sharpness measurement but this time, before mounting the knife, place your finger on the top of the test media fixture and press down steadily until the display reads 350 (or any other value you have selected). Now begin the measurement process. If your knife's edge sharpness score is 350 or less the media will sever and the display will remain unchanged. If the

score is higher than the value you have set then the display will change accordingly. You can test any number of knives without resetting the instrument this way as long as no one knife in the group exceeds the pass/fail limit.

A little more on the BESS. At EOU we talk sharpness numbers (0 - 2000 grams of pressure). You don't have to know anything about knife sharpening to understand the BESS because it is based on the sharpness of a double edge razor blade, the sharpest edge that most of us will ever encounter. Please take a few seconds to familiarize yourself with the scale because soon you'll be speaking a new language when it comes to knife sharpness levels..

Typical Examples Of BESS "C" Scale Measurements

numerical values expressed in
grams of pressure



Email us at edgeonup.com with questions - we respond!