The Corbin BPK-1 Bullet Polisher Kit consists of a thermally-protected 115 volt 60Hz vibrator motor with built-in power cord and switch, a mounting bracket which circles the motor housing and secures the motor to the bottom of a gallon pail or a large coffee can, a pound of walnut shell grinding media, and four self-locking nuts and matching bolts and washers (to fasten the bracket to the bottom of the container).

The motor should be mounted under the container, and the container should then be hung by a bail or handle from a shelf bracket or a light rope tied to an overhead beam or hook (lamp swag hooks are often convenient for this purpose). Success has also been reported with the use of a door spring as part of the hanging system, so that the bucket or can is free to bounce up and down with the vibration, increasing the action. It has also been found that the position of the motor, relative to the diameter and height of the container, makes a very large difference in the “boiling” action of the particles within the container. If the walnut shell media does not move rapidly with a kind of boiling action, try plugging the holes with 1/4-inch diameter short bolts, and move the mounting bracket so it is slightly off center on the bottom of the container.

Once you have mounted the motor and bracket to the bottom of a can (on the outside, of course), and hung the can by a bail or handle (which you can make easily by punching two holes near the top of the container through which the ends of a coat hanger can be bent), you can then place one or two pounds of walnut shell polishing media into the can, and turn it on. As you add cases, bullets, or other metal objects to polish, watch the action of the walnut shells. Sometimes the action slows down rapidly with increased load, and then increases again as the mass of the entire assembly reaches a point that makes it vibrate in harmonic relationship with the motor. If you find this to be the case, you can adjust the amount of walnut shell media or the load of parts to be polished so that you always get maximum movement of the material.

**Caution: Although the motor is thermally protected, it will run hot.** Make sure it is located far enough away from walls, furniture or any flammable materials so that if it should fail, there would be no harm to anything but the motor itself from excess heating. Also, make sure that the power cord is not pulled taut: it should have a loop near the motor to allow the motor to vibrate without being loaded and slowed by having to pull on the power cord. Vibration of the power cord can break the wiring inside, and cause the motor to stop, if the cord is pulled straight from the motor to the wall outlet. Make sure the motor can get an unobstructed flow of air to keep it within the normal operating temperature range (don’t build a closed cabinet for the polisher, for example). Spacing the motor at least six inches from walls and table tops is recommended. Do not let the motor run unattended for long periods of time (for example, overnight). Do not use flammable liquids in the walnut mixture.

Generally speaking, brass and bullets can be polished within 20 to 40 minutes. To increase the amount of polishing action, you can add a few drops of Corbin Bore Cleaner to the walnut shells and stir them well, breaking up any clumps of particles sticking together. This can restore polishing action to well-used walnut shells. Lead tip bullets can become damaged by leaving them for too long a time in the polisher, although the action is more gentle than the typical tumbler-type polishing barrel. Small particles of walnut shell can go into the holes in open tip bullets or hollow points. To prevent this, you can seal the tips with a drop of candle wax or press them into a paraffin block to pick up a small “plug” in the tip. The wax does no harm if left in the bullet.