



How to use the Clickspring Fire Piston:

The instruction I included at the end of [the video I made for Make Magazine](#) mostly still applies - with one exception that I'll cover in a moment. (A dedicated instruction video will be released soon)

Tear off a small piece of char cloth, gently roll it into a ball and push it into the cone shape at the end. **It is helpful if the char cloth is not packed in too tightly into the cone.** Its even better if there are little tufts or threads of the char cloth exposed at the top - these threads are the most readily ignited. Gently insert the piston back into the cylinder, with the end of the piston just inside - ie ensure that the piston will have a full stroke.

The main issue to get successful ignition is speed - you really do have to close the piston very fast.

There are 2 methods - push it down from above on a surface, or push it closed between your hands.

Both are demonstrated in the Make: video, **but for the "push from above method" its probably better for the surface finish if you don't hit it on the bench like I showed in that video.** You can simply position the cylinder over the piston and then push down, and it will achieve the same result, and wont risk marking the piston handle.

In each case you are aiming to push the piston down to its maximum compression point, very quickly.

Ignition is also significantly more reliable if you try to **briefly hold the piston at max pressure before pulling it out.** Once you get the hang of basic ignition, this part of the technique will ensure that you get a light off almost every time.

There is no particular need to pull the piston out quickly, but it does help if you blow gently on the ember once it ignites, to fan it into a larger ember.

That's basically it - if you're having trouble getting the first light off, have a read of the trouble shooting section below.

When you intend to actually start a fire, then flick the ember into a larger nest of char cloth and light fibrous kindling. Fan the ember until it ignites the surrounding material, and continue fanning until it develops into an open flame.

Trouble shooting:

There's no compression in the cylinder.

Confirm that the cylinder end cap (the part with the compass in it) is firmly screwed into the cylinder. You should be able to feel a nice tight closing action as it seats down on the o ring.

Confirm also that the piston O ring is fitted properly in its groove.

If neither check solves the issue, then something has gone missing in transit - contact me for a replacement unit.

The char cloth crumbles, does not ignite or falls out:

There is much variability in a single piece of char cloth. When learning to use the fire piston for the first time, it's preferable that you select the areas of char cloth that are the most combustible.

Examine the color - Black is good, light grey or tan color suggests that its slightly over cooked, and has a higher ash content. It is therefore much less combustible.

I suggest use the char cloth that is black, has clear fibers when you tear it off, and easily holds its shape even when you gently roll it into a ball.

Above all - Avoid using any char cloth that crumbles into powder. It is much less combustible than the "good stuff", and should be reserved for the tinder nest. Try some new char cloth, from either a different section of the cloth, or from an entirely new piece. Keep the char cloth that was less inclined to ignite for use in the tinder nest, it will still burn well enough for that part of the process.

The piston is getting stiff

After between 10 and 30 ignitions, the cylinder will become coated with carbon residue. This will happen gradually, so that you don't notice it until you start to have trouble getting ignition. Use a pipe cleaner (now also called 'chenille stems') to clean out the residue, and then place a single drop of light oil (gun oil, sewing machine oil etc) on the piston. Work it up and down a few times. You should feel an immediate return to a slinky, smooth feel.

I need more char cloth!

I show how to make your own char cloth in the [Make: video](#) - The process is fairly simple, but be sure to use 100% cotton, no exceptions. I use a 100% cotton canvas, and it gives a thick, highly combustible char cloth.

My problem is not on this list - Help!

Drop me an email here, and I'll sort it out for you: clickspring88@gmail.com