



How to Cut Your First Part

Version 8.26

Congratulations on the purchase of your plasma table! You've purchased the best, and we're here to help. This article is meant to give you a quick overview of how to cut your first part.

The first thing you need to do is to decide what type and thickness of material you want to cut. Your plasma table arrives programmed to cut 16 gauge mild steel, but you can easily change these parameters if you decide to cut something else. On the ArcStar Library page, there's an article titled 'Programming Cut Parameters', which leads you step by step in changing the controller parameters to match the material you're cutting. Remember, you obtain the parameter values from the cut charts in the back of the Hypertherm owners manual.

Although the gantry is quite tall, it may help to move the gantry all the way forward (or back) before loading the material. Pressing K1 on the controller raises the torch to the upper limit. Pressing the blue arrow buttons moves the torch in the direction of the arrows. Next, load the material onto your plasma table. Once the material is positioned correctly, move the torch to the location you'd like to cut your part. Take care to notice where your part 'begins'. Some designs start from the middle, some start from the bottom left corner. In order to visualize where the torch will travel during the cut, you may want to use the outline function. Go to 'Parts / H Outline'.

Connect the grounding wire from your plasma cutter to your material. Make sure to clip the lead to a portion of your material that will not be cut off or removed. It's good practice to route the cable over the back of the table, not the side, where it could potentially be severed by gantry movement. Ensure that the CPC connector is properly plugged into your plasma cutter. Make sure the ohmic lead from the lifter assembly is attached to the ohmic clip on your torch. Check your air supply is turned on and adequate. Next, press K2 on the controller. The torch should lower until it just contacts the material - it should just sort of 'kiss' the material and immediately retract to locate height. The torch should not press down or deflect the material - if it does, this means ohmic sensing is not working. Most likely culprit is the grounding wire or ohmic lead to the torch is missing or disconnected.

Most importantly, is safety. Make sure anyone present is wearing approved eye, ear and breathing protection. Although the table is enclosed, it's not impossible for sparks to escape while cutting - make certain the area around the plasma table is not combustible. It's always a good idea to have a fire extinguisher present while cutting - keep in mind that a plasma beam is around 4.5 times hotter than the surface of the sun!

When everything's ready, turn on the smoke exhaust fan, press the green button and start cutting!

Perhaps the most important thing we can stress is this - if you get stuck and can't figure it out - call us and let us help you. Thank you!

