Procedures for Using CNC Plasma Torch

1. Set up the Space
   — Open garage door.
   — Remove obstacles, debris, etc. from cutting area and table.
   — Arrange fan so air will blow over the table and towards open garage door

2. Set up the Torch
   — Plug into 220 and wheel machine over to table
   — Remove hand torch from front of machine and replace with connection to table torch
   — Attach the torchmate driver to the rear of the machine by aligning and screwing in
   — Pull down compressed air hose and attach to valve at rear of machine, leaving slack

4. Set up Computer
   — Turn on laptop
   — Turn on driver box (separate power switch)
   — Turn on mouse
   — Follow directions in following pages for setting up file

5. Prepare for Cutting
   — With torch at 0,0, place steel to be cut underneath. Side facing garage door is x axis
   — Adjust torch using clamp and wheel to within 1/16” of material
   — Attach ground clamp from machine to material to cut, or to cutting table
   — If metal is unstable, weigh down with scrap metal away from cutting path
   — Turn on machine
   — If any warning lights turn on, follow troubleshooting directions or inform staff
   — Adjust amperage according to charts for material type and thickness
   — Wear goggles rated at least #3
   — Turn on fan. Wear respirator if will be closely monitoring cutting.

6. Shut down shop
   — Turn off torch, disconnect ground clamp, air hose, and cords from torchmate.
   — Remove all metal from cutting table
   — Turn off torchmate drivers
   — Shut down laptop and turn off mouse
   — Roll plasma torch back where it goes and unplug
   — Turn off fan and close garage door
   — Dispose of any scrap metal in labeled containers
   — Sweep shop floor thoroughly
CNC PLASMA STEP-BY-STEP
TorchMate CAD Lite

Step 1: Import .dxf & position design on material

Step 2: Create Tool Paths
Step 3: Edit Start Points

Step 4: Edit Cut Sequence

Step 5: Export .dxf
Open Black Program
Import file and set XY feedrate to 100

Under ‘Jog’ tab use arrow keys to move torch to start point
Set both pairs of XY coordinates to 0

Set speed according to chart for material type and thickness

- Start to start
- Hold to pause
- Reset to cut again from beginning