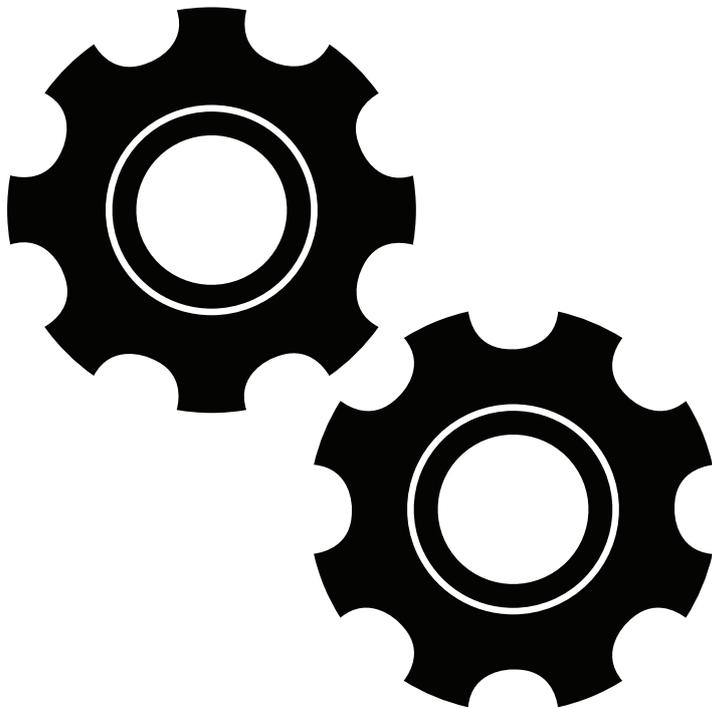


**LASER ENGRAVING STARTER KIT**

# **PRODUCTION MANUAL**



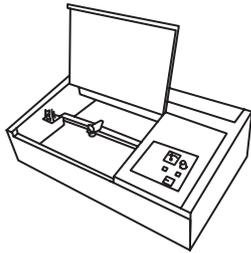
**SINGLE SPARK**  
*Your business-in-a-box!*

# CHAPTER ONE

# EQUIPMENT

Here you see an overview of the required equipment, including a short description.

These are the basic equipments you need when you want to start a laser engraving business

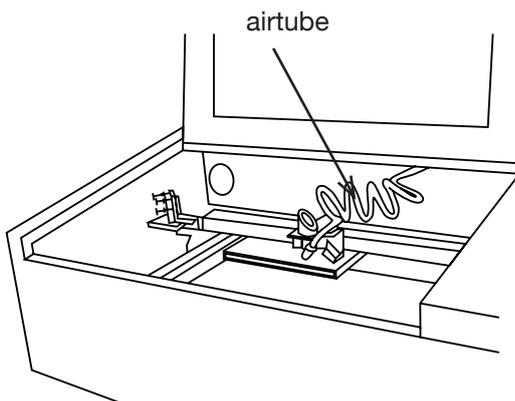


40W Co2 Laser Engraving Machine  
Price +/- \$500,- (excl. shipping)  
Check on Ebay

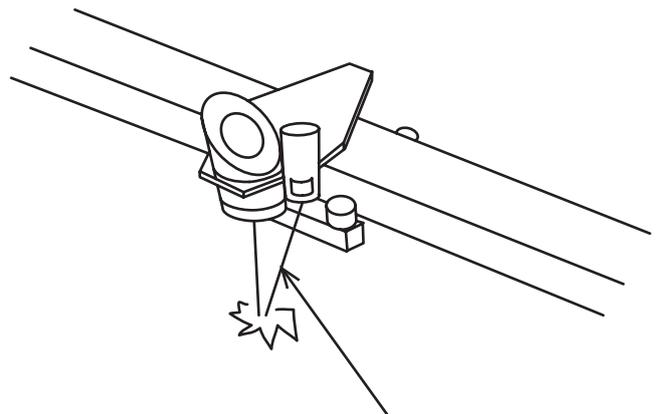


Personal computer or Laptop  
(Running MS Windows)

Necessary options for 40WCo2 Lasercutter



Blower/ compressor that reduces burning during lasering. (you can recognize this option by the presence of a plastic air tube)



Extra laser pointer to easily see starting point before lasering.

# CHAPTER TWO

# PRODUCTION VIDEOS

See your online account to watch the videos

General video about the laser engraver



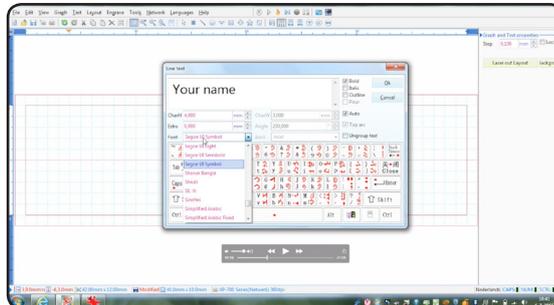
How to adjust the mirrors and lens



How to engrave a picture



How to engrave text



How to clean mirror and lens



See your personal account to watch the videos

## CHAPTER THREE

# PRODUCTION TIPS

Below you can find some useful tips about the Laser engraving machine. Please read them carefully.

You can not start using your laser directly upon receipt; the laser will not be calibrated. Take your time to calibrate the laser such that it gives the same output throughout the entire operating area (see video).

The machine consists of many parts. It is possible that certain parts have been tightened too much or too little when you receive it. For example, the screws of the laser-head could be too loose, which means that the laser-beam is less accurate than it could be. Make sure the head is calibrated correctly before you start using the machine.

After a while you will start noticing that the strength of the laser-beam is weakening. This could be the result of a dirty lens. If you have been lasering at a too high temperature for example, this can lead to the deposit of soot on the lens. It is easy to disassemble the lens and mirrors, and they can be disassembled separately (see video).

To achieve an optimally concentrated laser there is an optimal distance between the lens and the product. The distance is perfect when your product is placed in the clamp in the center of the operating area.

Pictures and text can easily be made with the program which comes with the laser machine (LaserDRW), but the possibilities are limited. You can also use any other 2D-drawing application, as long as the output is black & white and JPG. JPG can be read by the lasers driver "LaserDRW". JPG is an output option in almost any 2D drawing application.

LaserDRW does have the possibility to read JPG files with colour, but in this case the driver will convert the file to black & white itself before sending it to the laser. This means that the end result will always be a surprise. It is therefore advisable to convert the image to black & white yourself.

After a day of heavy usage the cooling water can heat up. Make sure that the cooling water remains below 35 degrees, otherwise the laser could overheat, resulting in the breaking down of your laser tube. Use a larger tank so that the water has more time to cool down.

The required amperage varies per product. This is due to differences in materials, different heights, and different functions the laser has (engraving/cutting). Running tests will make clear what amperage is required for which product.

The laser machine comes with a USB stick which works as a so-called "dongle". If the stick is not inserted into your computer the driver LaserDRW cannot communicate with the laser machine.

Watch the videos on your personal before using the machine



See your personal account to watch the videos

## CHAPTER FOUR

# EXAMPLE PRODUCTS

This chapter shows products you could make for your clients.

### Wallets



### Awards



### Business cards



### Promotion



### Phones



### Decoration



## CHAPTER FIVE

# BUY ONLINE

Some equipment and materials can't be bought locally or are very expensive. On the internet there are several websites to buy materials and equipment from abroad. Alibaba and Ebay are the most popular ones. With the use of clear videos this chapter explains how Ebay works. To purchase products online you need a Creditcard or a free PayPal account. For PayPal you only need your bank account. The tutorial for Paypal is also included in this chapter.



These are the steps you need to take to create an Ebay account, create a Paypal account, to link them together, and to buy your first product online.



- 1 Create an Ebay account (see online video: How To Create an Ebay Account)
- 2 Create a PayPal-account (see online video: How to Make a PayPal Business Account and link your bank account)
- 3 Verify your PayPal-account with your email address (video: How to Verify Your PayPal Account)
- 4 Link your PayPal-account to your Ebay-account (video: How to Link Your PayPal Account With Ebay)
- 5 Buy your products (video: How to Buy on Ebay)



See your personal account to watch the videos



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