GRAVOTECH
EXPRESSION OF THINGS

Red pointer alignment procedure

Red pointer alignment procedure

When using the red pointer in your application (i.e.: positioning, simulation, Print&Cut, etc.), if there is a shift between the red pointer and the actual laser path, this might be fix by re-aligning these two.

This procedure will guide you through the re-alignment process of the red pointer with laser beam of the machine.
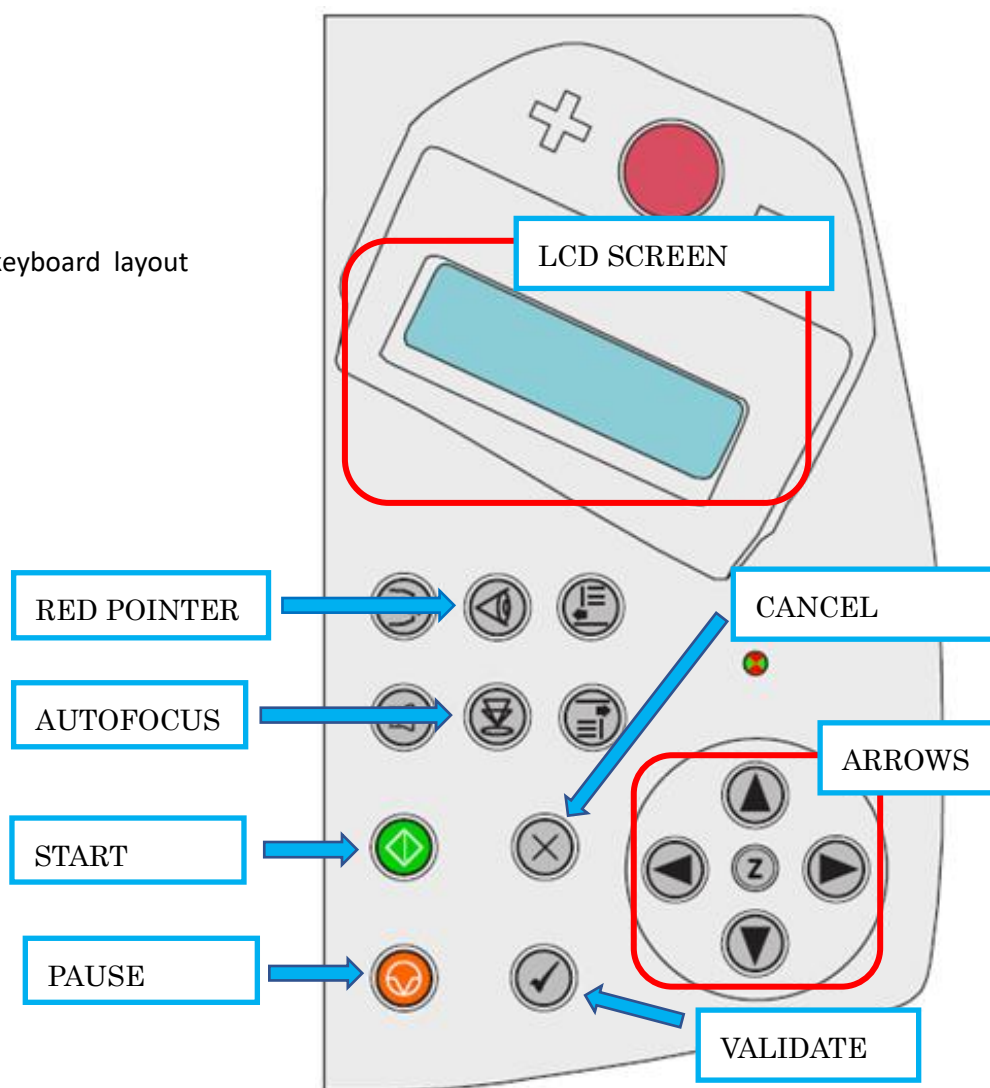
Preparation

➢ Prepare some engraving material and place it at the center of the engraving area. Because power will be low, blank printer paper can be used as an engraving medium.

Caution

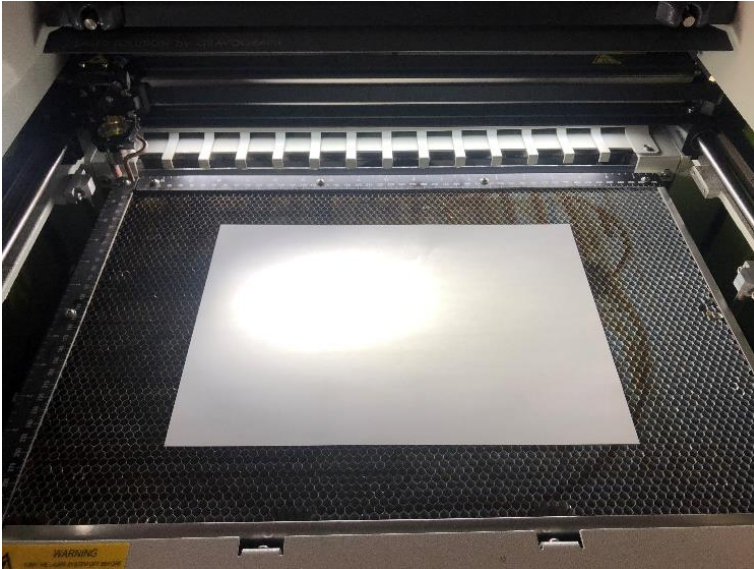➢ Start the procedure with the machine powered down (OFF state).

Procedure

This is the laser machine keyboard layout and button legend:

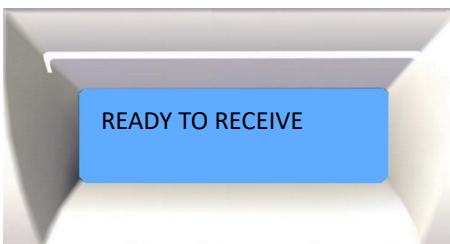NB: buttons and layout may vary slightly depending on the machine model. LS100 model shown.

I.   Autofocus

①. Place the engraving medium in the centre of the machine's engraving area. Close the lid.

②. Switch the machine ON. Wait

③. Wait for complete start-up. Once started and ready to operate, the machine's LCD screen should display "Ready to receive".

④. Using the arrow keys on the machine's control panel, bring the laser head over the engraving material.

⑤. Press the autofocus key to adjust the table height automatically.

(Note: at this point the machine's table will move upwards until the engraving medium touches the Z sensor on the laser head and finally comes back downwards at the proper focal distance.)

⑥. Before proceeding further with the red pointer alignment, please shut down the laser machine (power OFF).
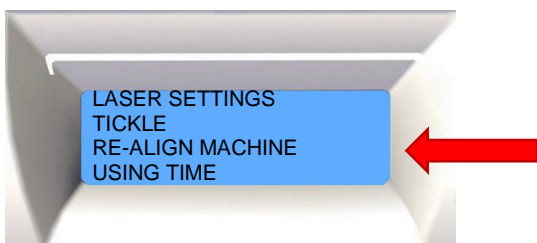
II.   Red pointer alignment

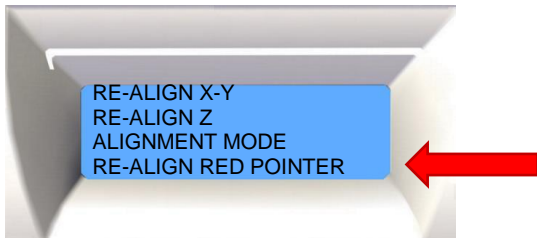⑦. Lid closed, switch ON the laser machine and watch carefully the LCD screen of the machine. (power ON)

⑧. When the "Gravograph" screen displays, press the CANCEL key ⊗

```
        << - GRAVOGRAPH - >>
PROG              X.XX
LCD SOFT          2.0a
32 M BOOT         2.0
```
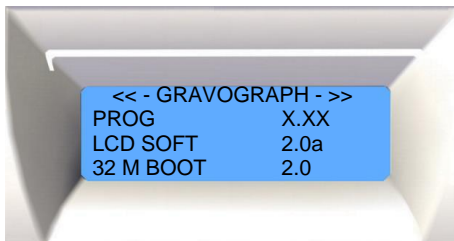
⑨. Using the arrow keys ▼ , select "RE-ALIGN MACHINE" and validate ✓ .

```
LASER SETTINGS
TICKLE
RE-ALIGN MACHINE
USING TIME
```
⬅

⑩. Using the arrow keys ▼ , select "RE-ALIGN RED POINTER" and validate ✓ .

```
RE-ALIGN X-Y
RE-ALIGN Z
ALIGNMENT MODE
RE-ALIGN RED POINTER
```
⬅

⑪. Using the arrow keys ▲ , set the laser power to a low value. 5 is typically more than enough (on very high

nominal power machines like 100 or more watts, lowering this to 3 is recommended)..

```
RE-ALIGN RED POINTER
POWER                    5
```
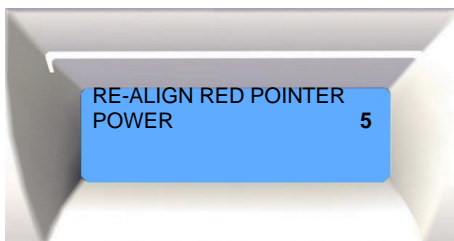
Upon validation, ✓ , the laser head will move to the centre of the engraving area.

```
RE-ALIGN RED POINTER
JOYSTICK              XY
X     xxx    Y     yyy
```
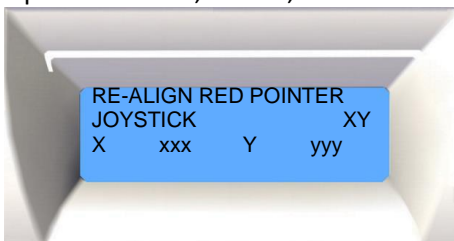
⑫. Take a look at the laser head's location and verify that the red pointer is ON and hitting the engraving material placed there.

⑬. Making sure the laser machine's cover is closed, push the red pointer button for a while.

The red pointer should disappear and the laser beam should fire as long as the button is pushed.

⑭. 2 seconds is typically long enough. (If not, keep pushed until a tiny mark is visible on the engraving medium).

The laser will cease firing and the red pointer should reappear as soon as the red pointer button is released.

⑮. Using the four arrow keys , precisely bring the red pointer on the centre of the burn mark.


```
RE-ALIGN RED POINTER
JOYSTICK              XY
X      xxx     Y      yyy
```
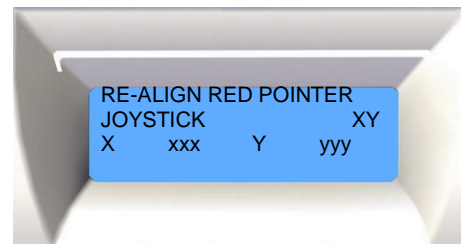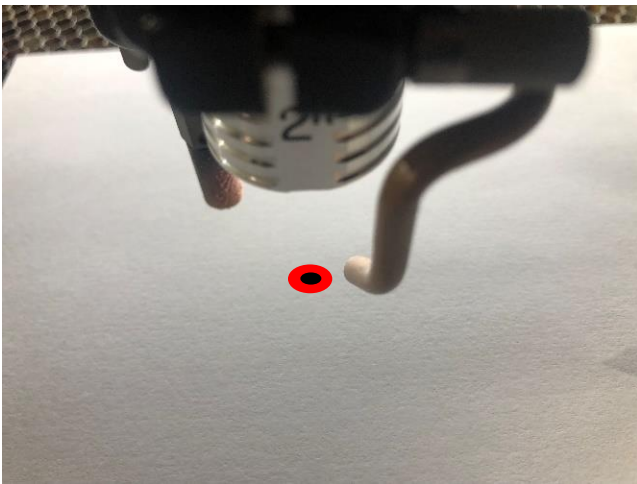
⑯. Once centring is satisfying, press validate to register the new setting . The machine should emits a acknowledging "beep" sound.

⑰. The alignment procedure is done. Exit the configuration menu by pressing the cancel key until getting back to the "Gravograph" display.

Then wait for starting sequence to complete. Once "Ready to receive" displays, the machine is now ready to use normally again.

```
<< - GRAVOGRAPH - >>
PROG           X.XX
LCD SOFT       2.0a
32 M BOOT      2.0
```

```
READY TO RECEIVE
```