

GRAVOTECH
E X P R E S S I O N O F T H I N G S

L-Solution laser driver

MIMAKI

fine Cut 9

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L-Solution driver installation

Preparation

- The laser machine is needed for driver installation. Please prepare connection between PC and laser machine and keep the machine power off.

Laser side: USB B connector



PC side: USB A connector



Caution

- Before installing the driver, make sure the laser machine is off.
- To install L-Solution driver, administrator privileges are required. Make sure to right-click on the setup.exe and choose "run as administrator".
- If you were using personalized job presets with a previous L-Solution version, it is recommended to do a backup prior to installing the new version. Such presets are typically located in C:¥L_Solution¥Job
- When more than one computer will be used with the same laser machine, make sure to update L-Solution driver to the same version on every computer.
- FineCut 9 requires L-Solution version **7.26-3** or above.

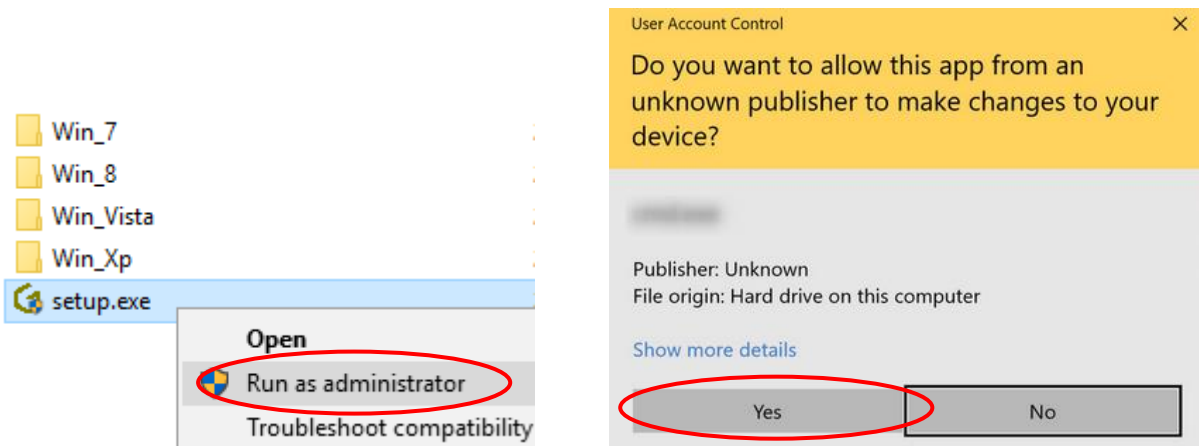
Procedure

- ①. Browse your PC for the “L-Solution 7.XX-3” folder containing installation files.

If downloaded from https://www.gravotech.co.jp/download_mimaki.php , make sure to extract the ZIP archive locally before proceeding to installation.

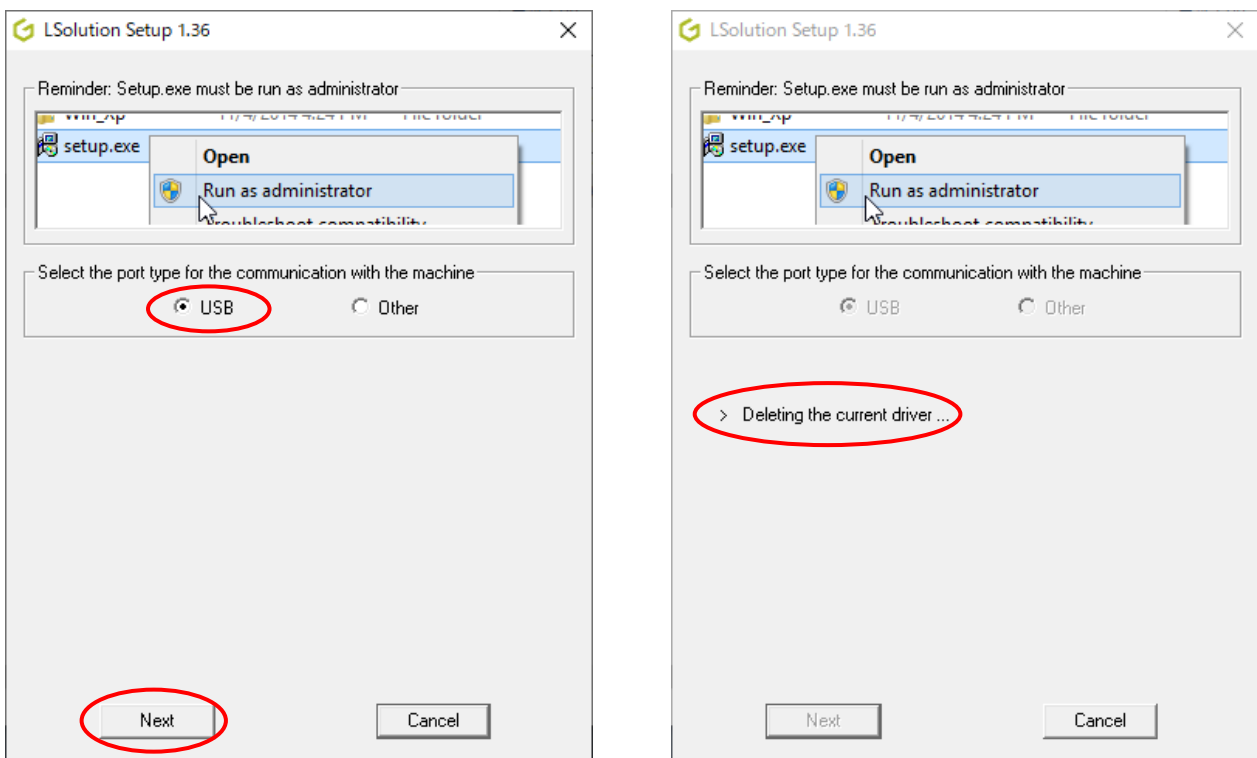
If taken from a local installation of LaserStyle software, typically C:\GravoStyle8000\DRIVER\L-Solution 7.XX-3 , please double check the version number you are about to install.

Inside the “L-Solution 7.XX-3” installation folder, right-click on “setup.exe” and do “run as administrator”. When prompt for security, allow the installer to modify system in order to proceed.



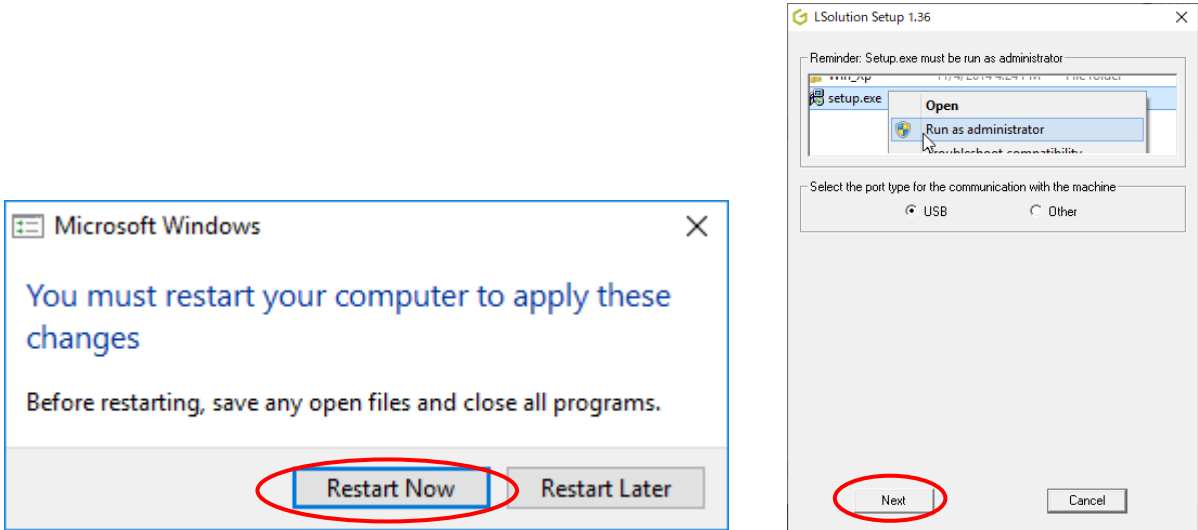
- ②. Click “Next” to launch the installation. Note that the communication port type should be left on “USB”.

The installation process begins by deleting any pre-existing L-Solution driver on the PC. As this may take a few seconds, please wait for completion.



Sometimes the operating system will require you to reboot in order to proceed further with the driver installation.

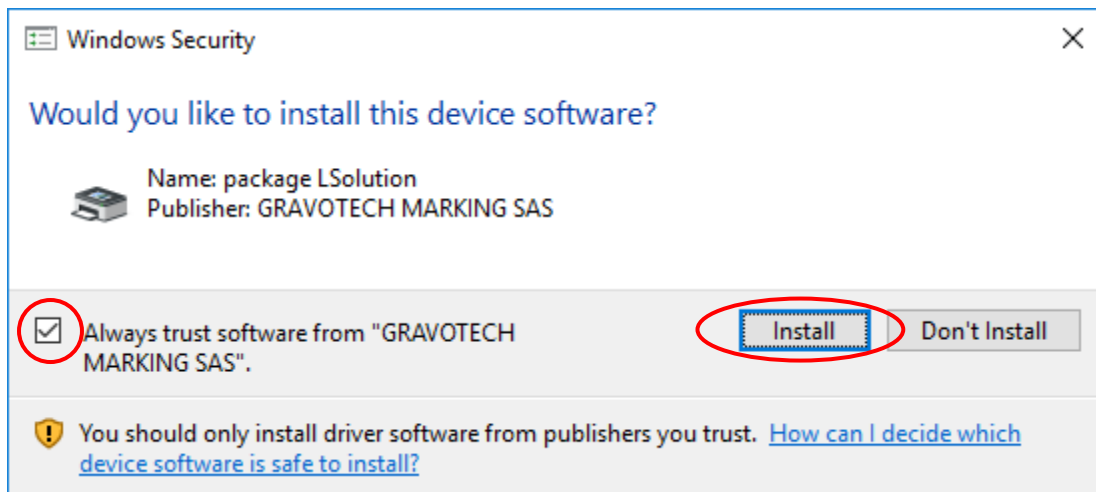
Please save your work and close all your other applications and do “restart now”. Do not do “restart later”.



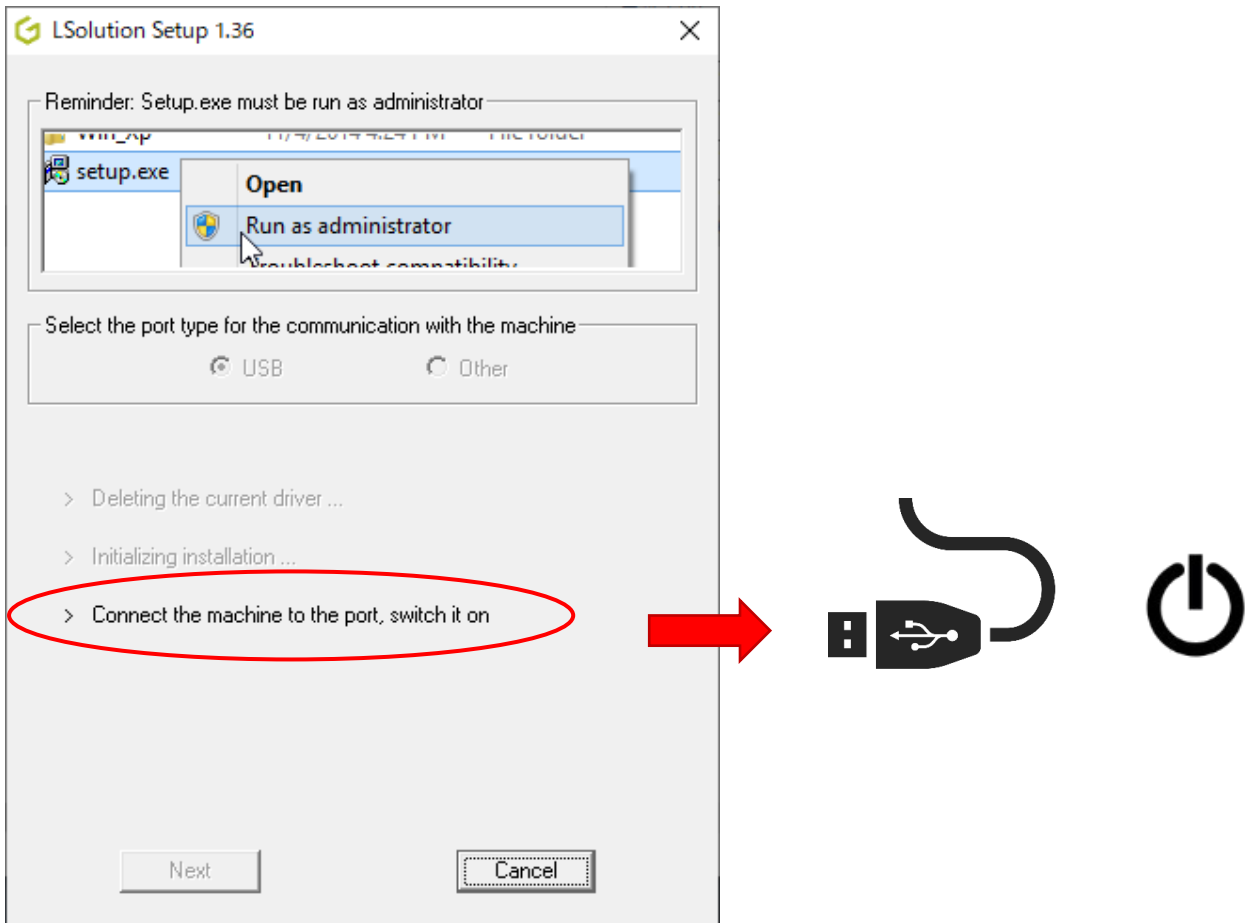
Let the computer restart normally and log on to your account. Do not launch any application, after a while the L-Solution driver installer should come back automatically. Click “Next” to continue with the installation.

When installing the L-Solution for the very first time on a computer, Windows will ask you for confirmation in trusting the software package and publisher.

Please check the checkbox “always trust software from GRAVOTECH MARKING SAS” and proceed with “Install”.



- ③. The installation continues until “Connect the machine to the port, switch it on” is displayed. At this point, connect the USB cable of the laser machine to the PC and switch ON the laser machine. Windows will detect a new peripheral and the installation will continue automatically.



At the end of the installation process, the installer screen automatically closes.

The laser driver is now installed.

To double-check its status, see Settings > Devices > Printers&Scanners.

L-Solution security settings

Preparation

- To modify security settings of the L-Solution driver, administrator privileges are required. Make sure to log in as a system administrator for this procedure.

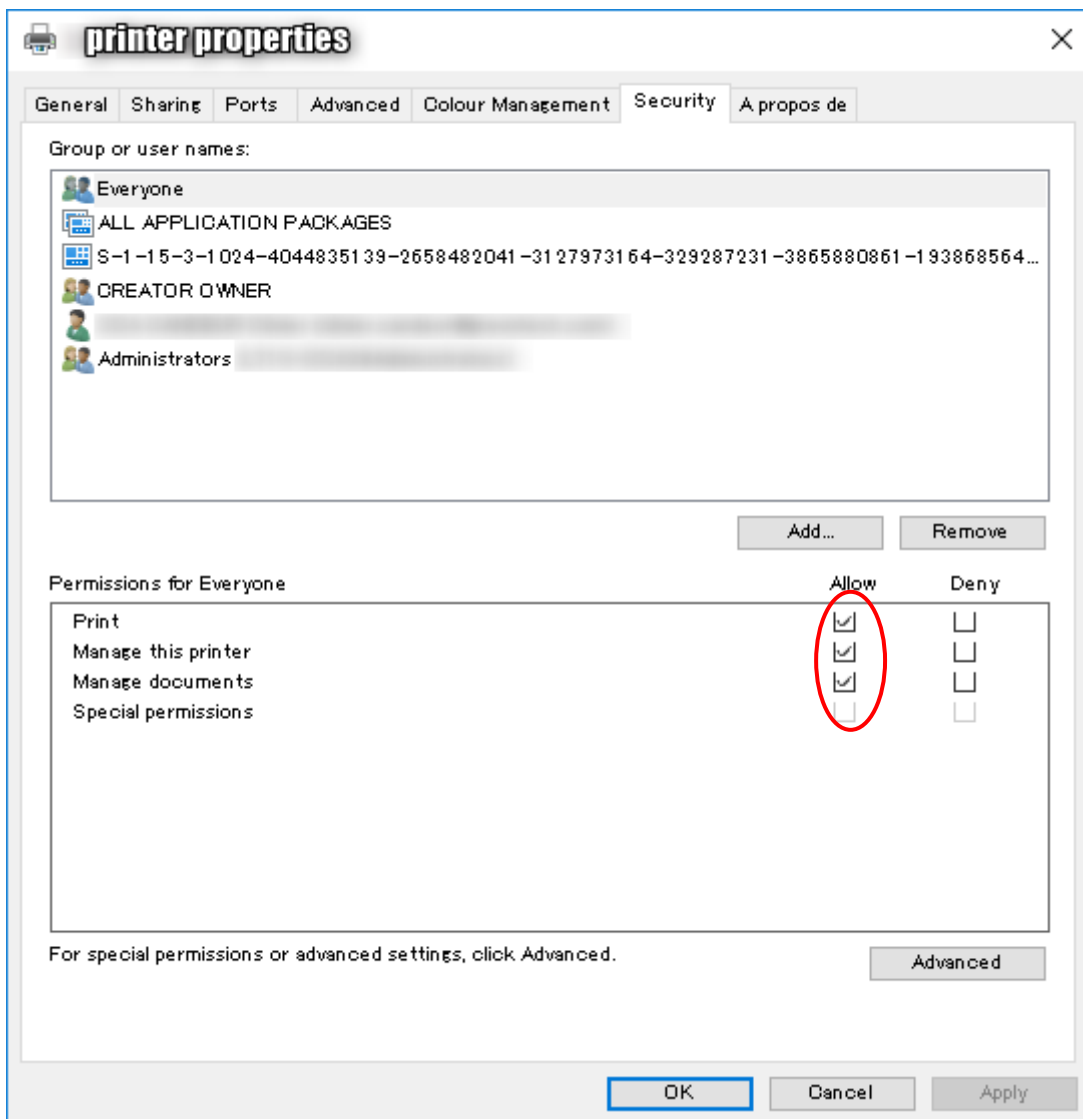
Procedure

For system stability and also in order to use the printer with non-administrator accounts, it is necessary to give total permissions on the driver to every users of the computer.

Open the printer properties of the L-Solution printer (start button, settings, devices, printers&scanners, L-Solution, printer properties).

Under the “security” tab, check every “Allow” checkboxes for every user in the list, especially “Everyone”.

Do “Apply”.

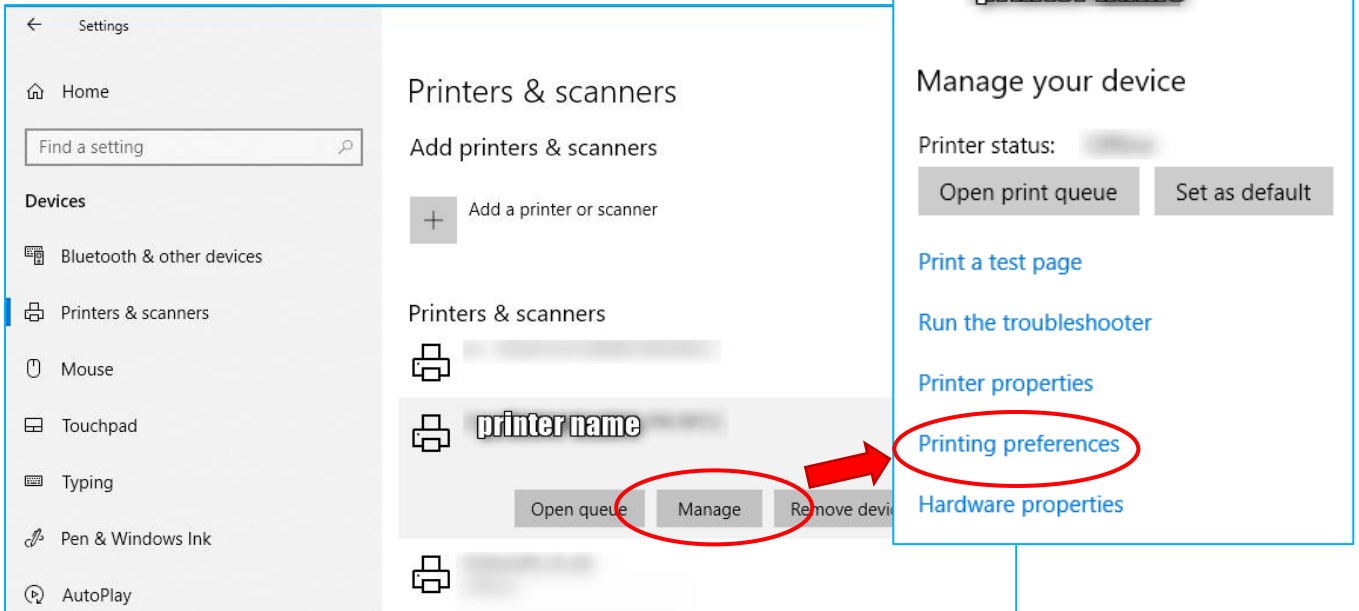


The laser printer driver is now usable by every user on this PC, including non-administrator accounts.

L-Solution initial settings

Browsing the PC settings (start button, settings, devices, "Printers & scanners"), find the "L-Solution" printer, click on it and choose "Manage".

Then proceed to "Printing preferences".



Indicate the following information:

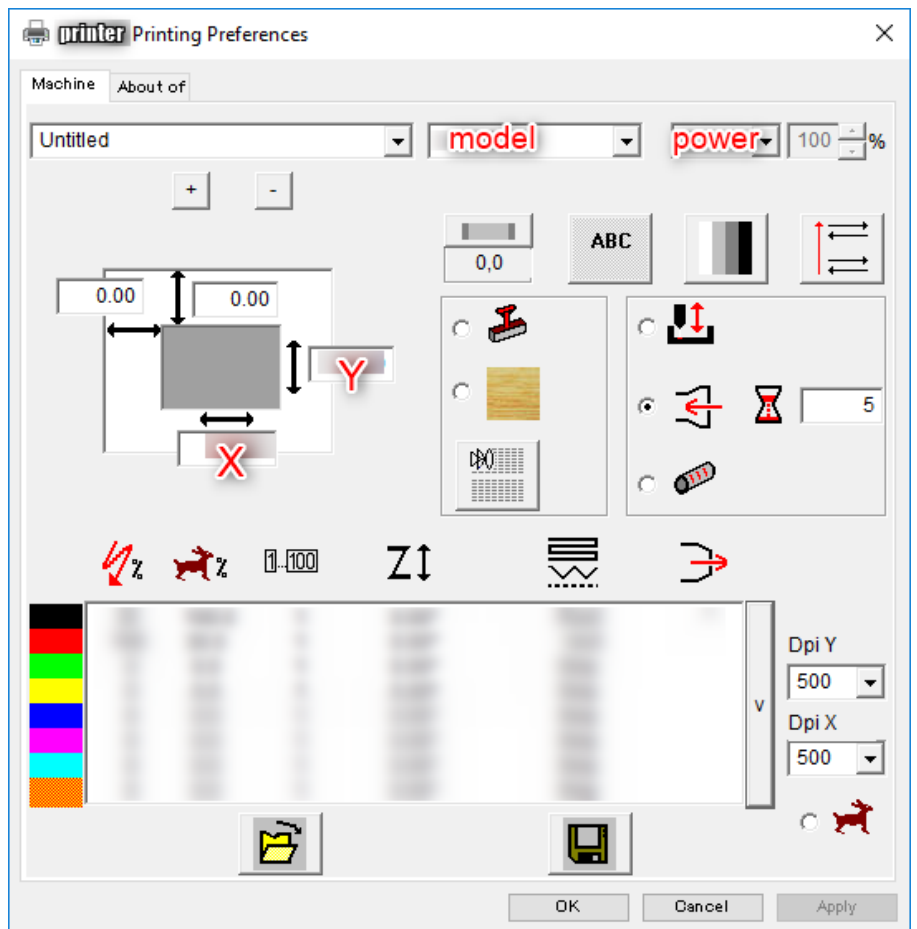
- Width in X field
- Height in Y field
- Model in model field
- Nominal power in power field

It is also recommended to activate automatic air suction while engraving by clicking



engraving by clicking

Click Ok to validate and quit.



Deactivate automatic machine firmware update

This section shows how to deactivate the automatic machine firmware update performed by LaserStyle software.

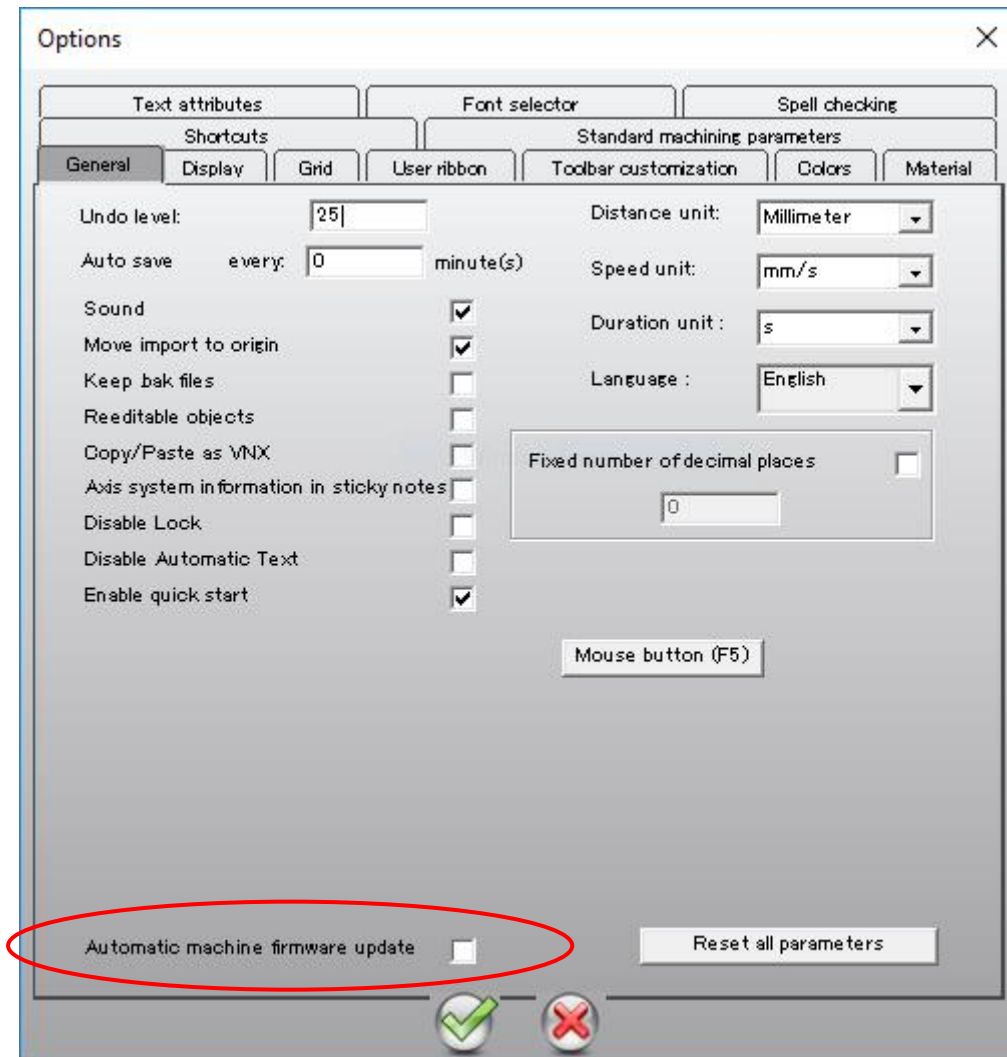
Start LaserStyle software and open the options window using F10 key (you can also browse the menu for the “modify options” button).



In the options window, “General” tab, make sure to un-tick the “Automatic machine firmware update” checkbox.



Validate using the green check mark .



Laser machine firmware update

Preparation

- To update the laser machine firmware a PC with a recent L-Solution driver is required.

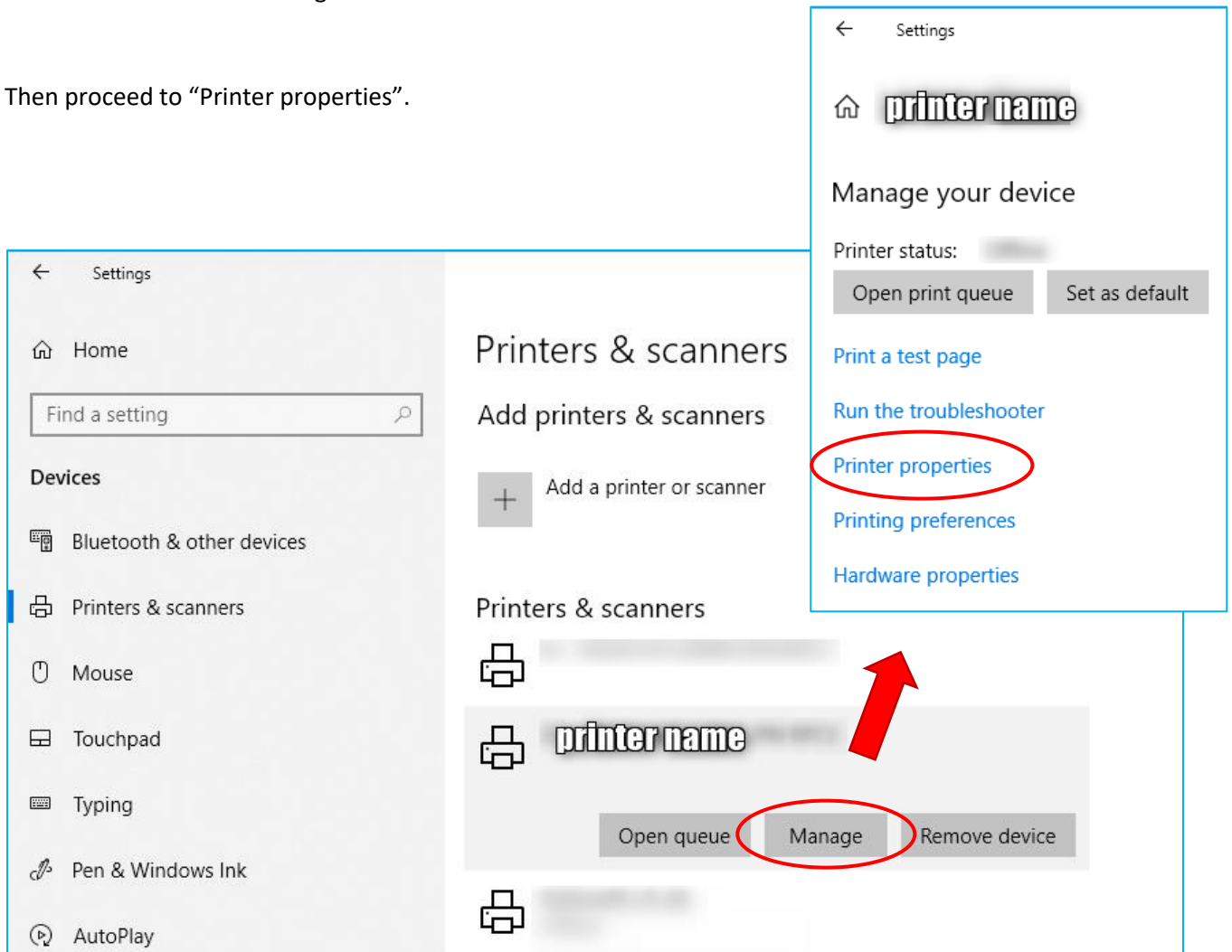
Caution

- Connection with the machine will be required so please make sure there is a proper functional connection between the PC and the laser machine.
- FineCut 9 requires LS-series' firmware version **4.45** or above.
Firmware version 4.45 is included in L-Solution driver version **7.26-3**.

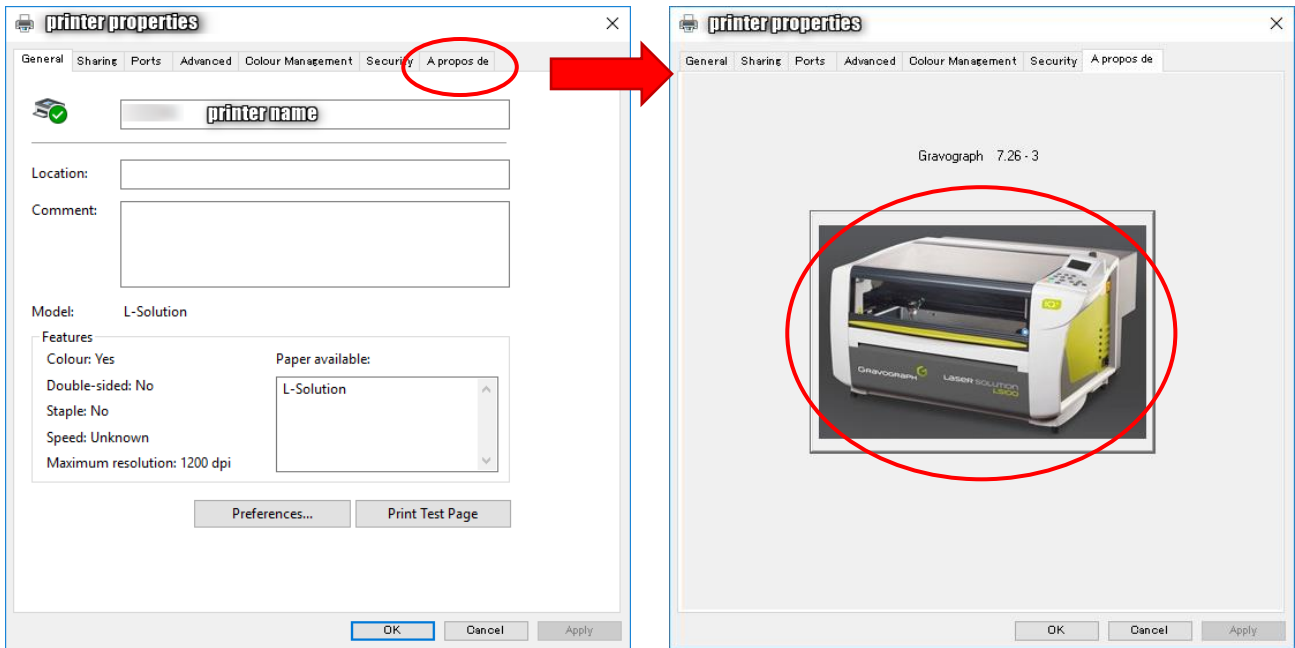
Procedure

Browsing the PC settings (start button, settings, devices, "Printers & scanners"), find the "L-Solution" printer, click on it and choose "Manage".

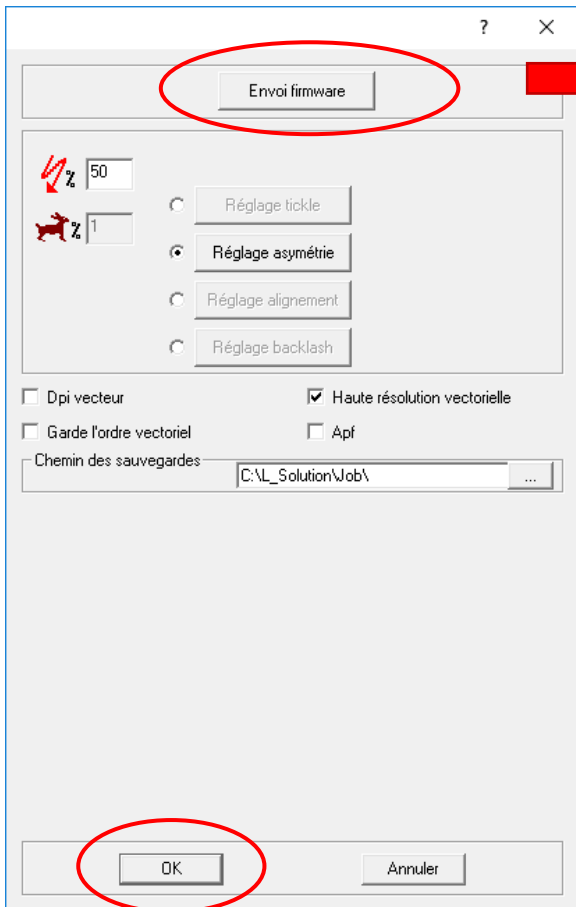
Then proceed to "Printer properties".



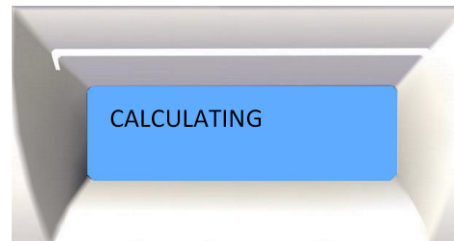
In the “About” tab, click on the laser machine illustration in the middle of the window. Note that you can see the current version of L-Solution which is installed on that computer.



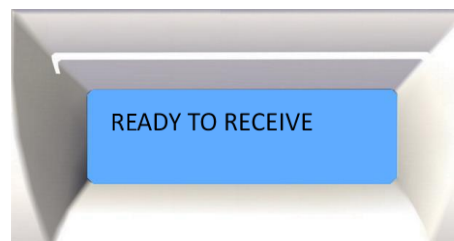
Click on “Load firmware”.



Upon reception of the firmware file, the laser machine LCD screen will display “calculating” to indicate it is processing the update.



When finished, the LCD screen will display the usual message “Ready to receive”. The firmware is now updated.



Click “Ok” to close this window. The firmware update process is finished.

Laser machine adjustments

Preparation

- Engraving material is needed to perform engraving tests and adjust various settings of the machine. There are at most five different tests, so preparing five sheets of engraving material is recommended.
- Test jobs are stored in the L-Solution driver so a PC with the compatible L-Solution driver installed is required. Proper connection between PC and laser machine is needed.

Caution

- As stated in the general user manual, never leave the machine unattended when engraving.
- Select the power setting wisely depending on the material to be engraved and the nominal power of your machine.

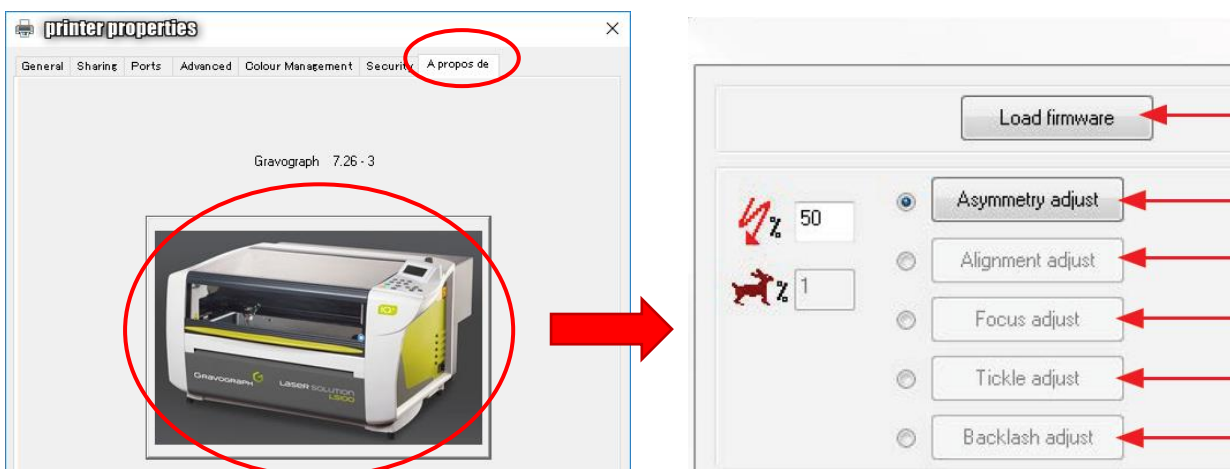
Procedure

When updating the laser machine's firmware, it is recommended, though not necessary, to verify the machine's adjustments.

There are up to five different tests (depends on the machine model and firmware/driver versions):

1. Asymmetry adjustment
2. Alignment adjustment
3. Focus adjustment
4. Tickle adjustment
5. Backlash adjustment

These adjustments are accessed via the "About" tab in the "Printer Properties" of the L-Solution driver.



The following pages will guide you quickly through each procedure. For more information, please refer to the L-Solution driver manual.

1 Asymmetry adjust

Used to adjust the alignment of vertical lines in raster mode (back and forth). This adjustment is performed at slow speed.

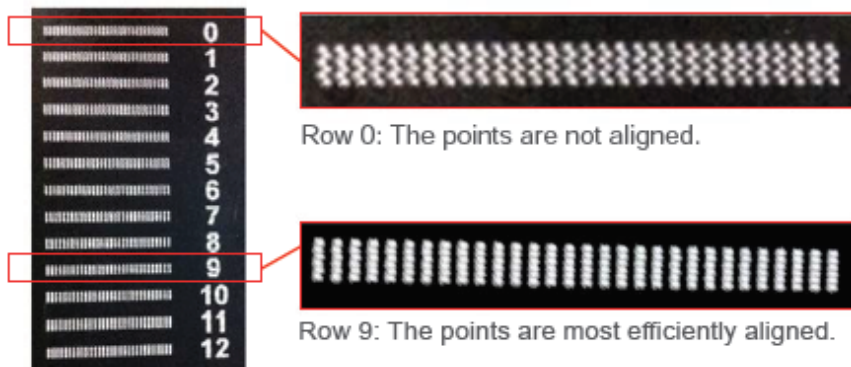
1. **Select:** .
2. **Adjust the power according to the material to be engraved.**
3. **Click on:** .



A test file is sent to the machine.

4. **On the control panel of the machine: press the key:**  .

13 rows of vertical lines are engraved (0-12).



5. **L-Solution driver: select the row number with the best alignment of points.**

6. **Click on:** .
7. **Click on:** .

2 Alignment adjust

Used to adjust the alignment of vertical lines in raster mode (back and forth). This adjustment is performed at rapid speed.

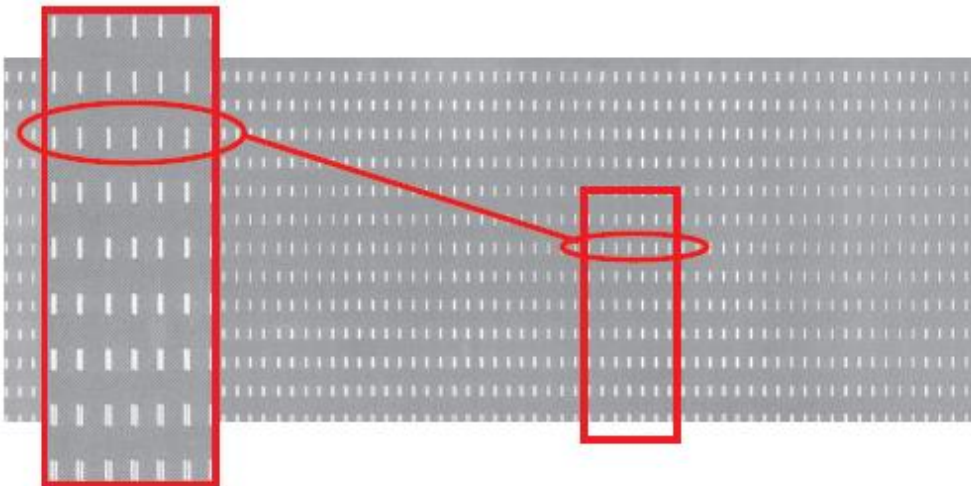
1. Select: .
2. Adjust the power and speed according to the material to be engraved.
3. Click on: .



A test file is sent to the machine.

4. On the control panel of the machine: press the key:  .

13 rows of vertical lines are engraved (0-12).

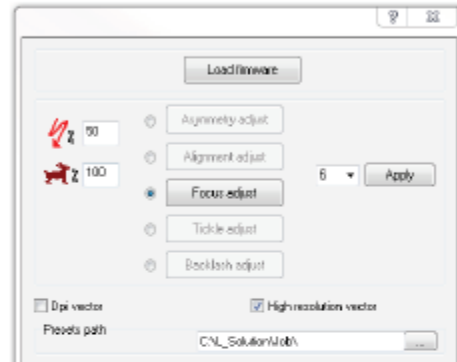
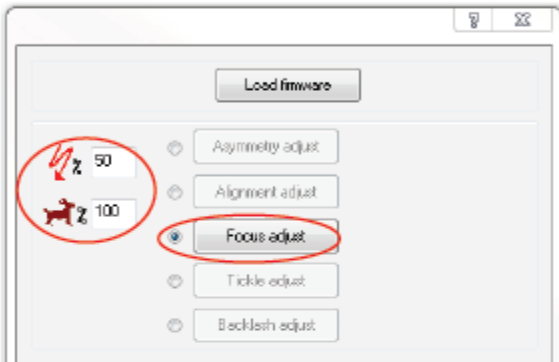


5. L-Solution driver: select the row number with the best alignment of points.
6. Click on: .
7. Click on: .


3 Focus adjust

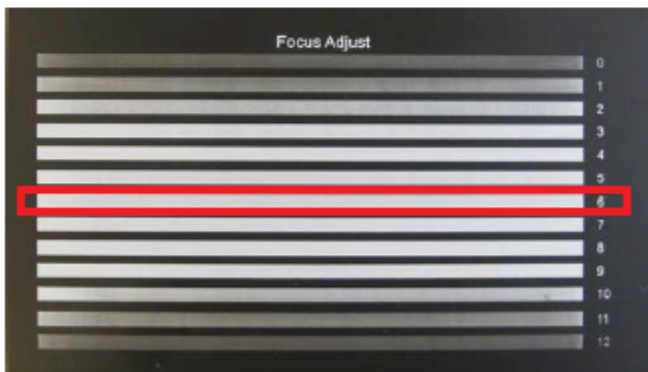
Used to fine-tune the focal point.

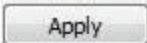
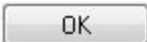
1. **Select:**  .
2. **Adjust the power and speed according to the material to be engraved.**
3. **Click on:**  .



A test file is sent to the machine.

4. **On the control panel of the machine: press the key:**  .



5. **L-Solution driver: select the row number with the best rendering.**
6. **Click on:**  .
7. **Click on:**  .

4 Tickle adjust

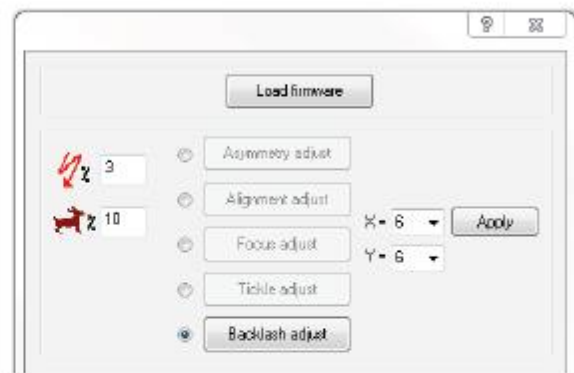
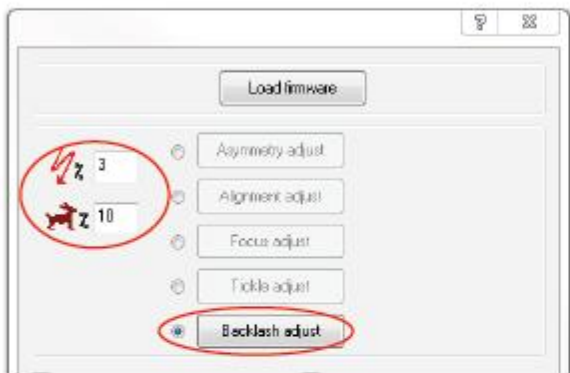
Used to set the excitation threshold from the source to the marking point.

Do not change these values unless instructed to do so by a Gravotech technician.


5 Backlash adjust

Used to correct XY mechanical play by applying a position correction at each change in the direction of travel. This setting is particularly useful for the correction of unclosed shapes.

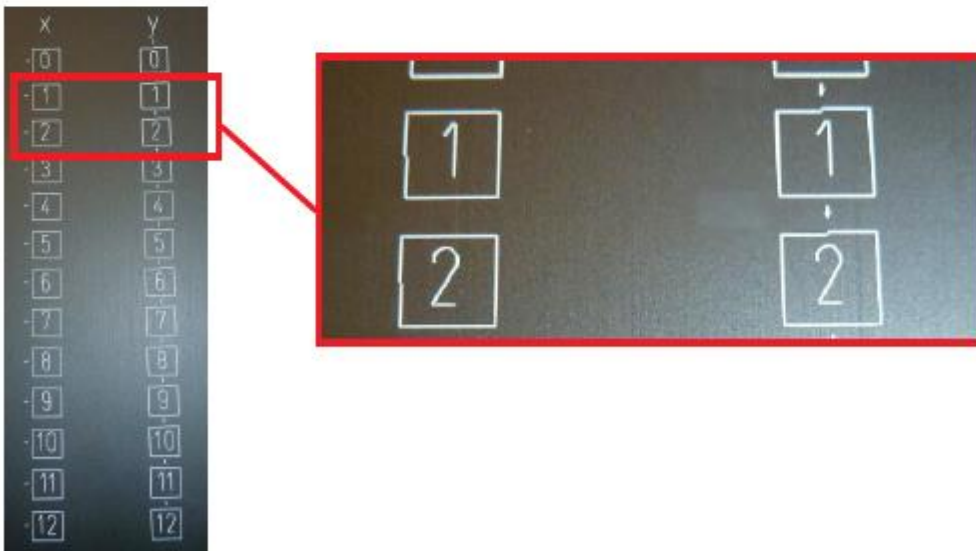
1. Select: .
2. Adjust the power and speed according to the material to be engraved.
3. Click on: .



A test file is sent to the machine.

4. On the control panel of the machine: press the key:  .

2 x 13 squares are engraved (0-12).



5. L-Solution driver: select the row along X and then along Y where the alignment is better.
6. Click on: .
7. Click on: .

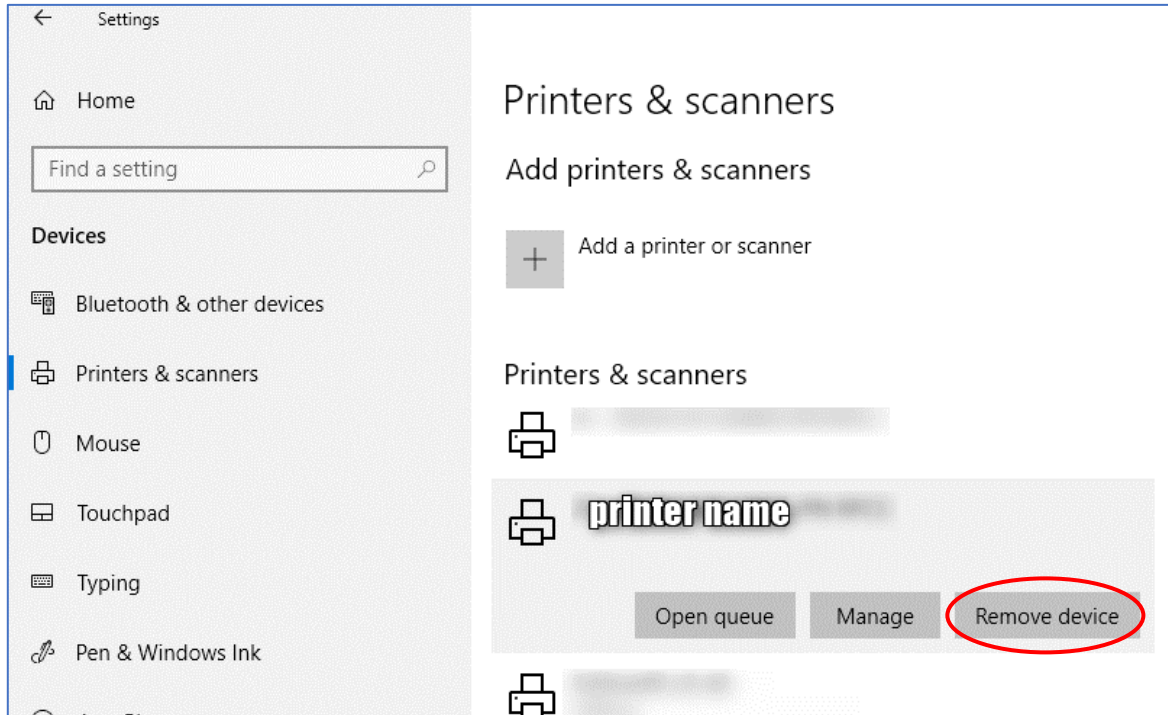
Uninstalling L-Solution driver

- ①. Click on the windows icon in the bottom left corner of the desktop to then access the settings menu.

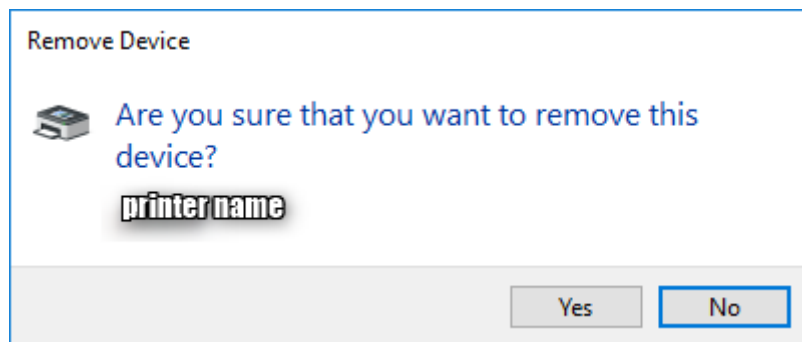
Proceed to “Devices”.



- ②. Under “Printers & scanners”, find the “L-Solution” printer, click on it and choose “Remove device”.



- ③. When prompted for confirmation, proceed with the suppression by clicking “Yes”.

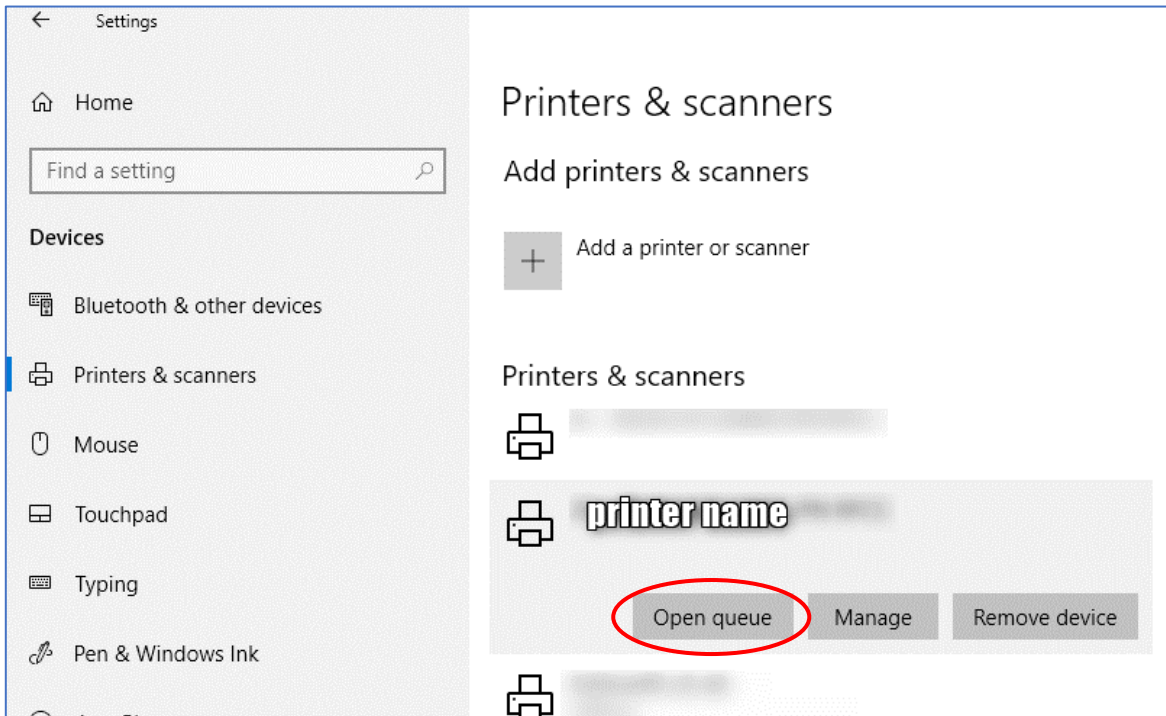


This printer has been removed. If there were multiple copies of the “L-Solution” printer, make sure to delete all of them.

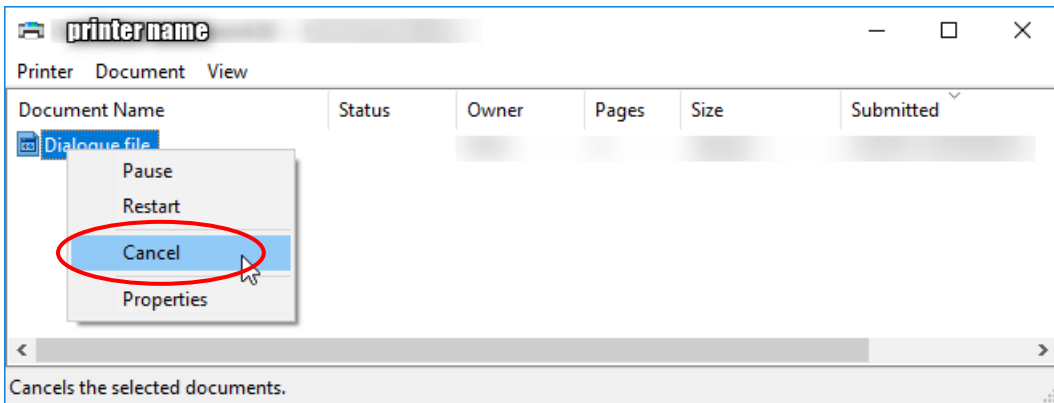
After removing a printer, it is recommended to reboot the computer.

When the printer cannot be removed, it is usually because printing jobs are still stored in the printing queue (spooler). Follow these instructions to empty the spooler:

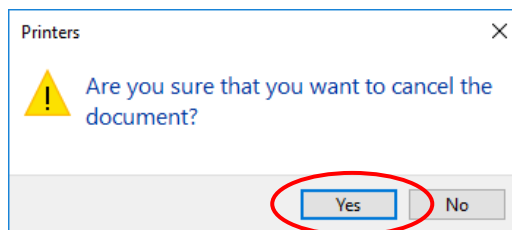
- ①. Under the desired “L-Solution” printer, open the printing queue with “Open queue”



- ②. On each document still present in the queue, right-click and do “Cancel” to suppress them.



- ③. If prompted for confirmation, authorize the suppression.

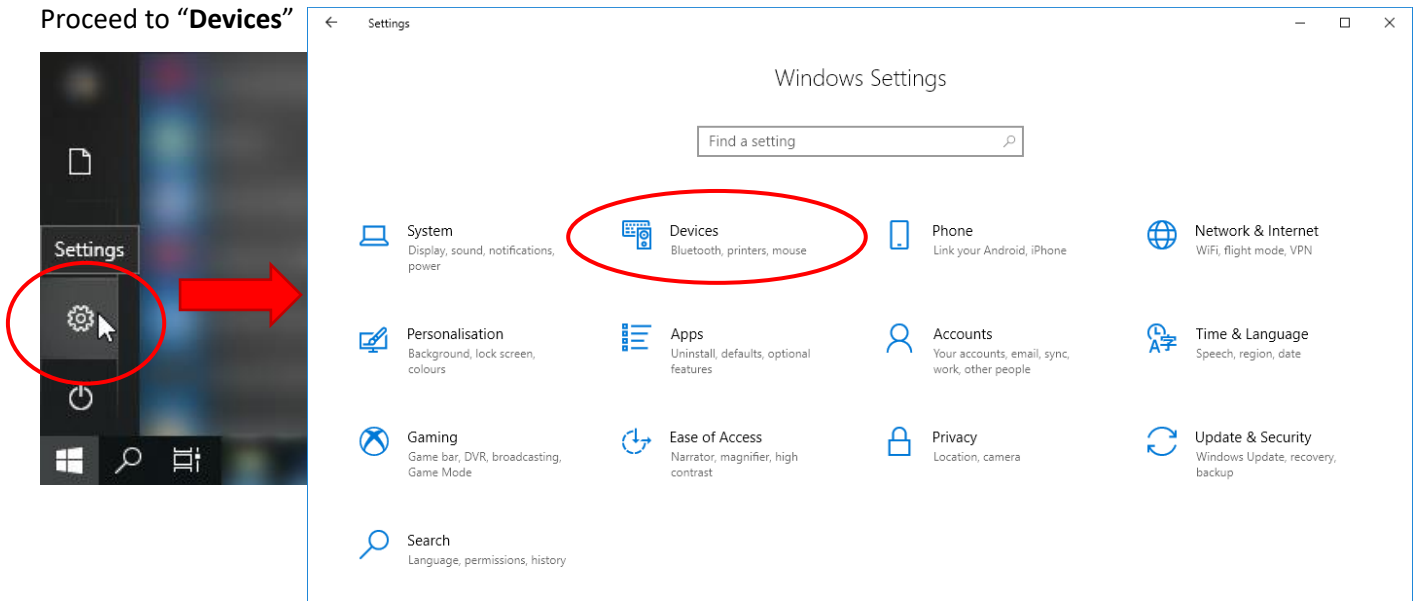


- ④. When all documents have been deleted from the printing queue, start again from the beginning of the uninstallation procedure to uninstall L-Solution.

How to display installed printers

Click on the windows icon in the bottom left corner of the desktop to then access the settings menu.

Proceed to **“Devices”**



Under **“Printers & scanners”**, all installed printers are listed.

