What is Penup?
Penup is holdover term from the days of plotters that describes when a job is being processed and the "pen" is not touching the surface of the material as the XY axes travel during the job (i.e., the pen is up). With laser engraving systems, penup occurs when the XY system is in motion while processing a job but not actually lasering (i.e., the XY axes is moving between two different vector portions of a job).

New feature starting with the .87 UCP:
Starting with the .87 UCP (5.38.57.87) driver, there are now two penup adjustment spinner controls on the systems tab of the UCP:
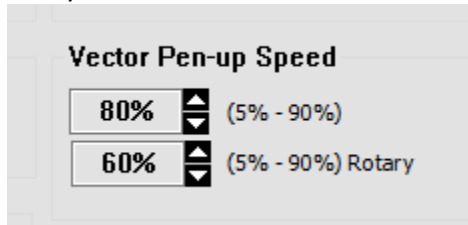
Top Spinner Control:
Is used for running regular 2D (flat table) jobs and is adjustable between 90% and 5% speed. This control can be adjusted to either slow down or speed up the motion of the XY axes between different portions of a job while that job is running. This can be useful when running complex vector jobs at higher speeds if there is slippage occurring during penup movements. Slowing the penup speed down will slow down the actual penup speed down without affecting the actual pendown (actual lasering) portions of a job. As with most things, there is a tradeoff of quality v. time.

The top spinner control sets the speed of all XY penup movements (even during a rotary job).

Every machine has its own default value penup speed. The list below covers standard ULS engravers and their default penup speeds:
ILS12 Standard Arm = 70% penup speed
ILS12 Heavy Arm = 60% penup speed
ILS9 Standard Arm = 85% penup speed
ILS9 Heavy Arm = 75% penup speed
PLS (all models) Standard Arm = 85% penup speed
PLS (all models) Heavy Arm = 70% penup speed
VLS (all models) Standard Arm = 80% penup speed

ILS Standard Arm = arm without superspeed, traveling exhaust or camera installed
ILS Heavy Arm = arm with at least of these installed: superspeed, camera & traveling exhaust
(Heavy Arm is determined by checking for superspeed & camera in peripheral devices and traveling exhaust checkbox being checked.   Any of the three qualify as a heavy arm).

PLS Standard Arm = arm without dual head attachment
PLS Heavy Arm = arm with dual head attachment installed (dual head checkbox is checked)

VLS = all models (desktop & platform) are standard arm only. Dual head, superspeed, camera & traveling exhaust options are not available for any VLS model.

Bottom Spinner Control:
Is used for adjusting the rotary penup speed. For heavier objects on a rotary, a slower penup is desirable as this assist with preventing slippage of the object in the rotary as it rotates. The rotary penup spinner is adjustable from 5% to 90%.

The bottom spinner control sets the speed of the rotary rotation only. Even during a rotary job, the XY penup speed is controlled by the top spinner control.

The default rotary penup speed is 60% for all models of ULS engravers.

Penup Default Values:
The image below shows a sampling of default penup controls for different models of ULS engravers:
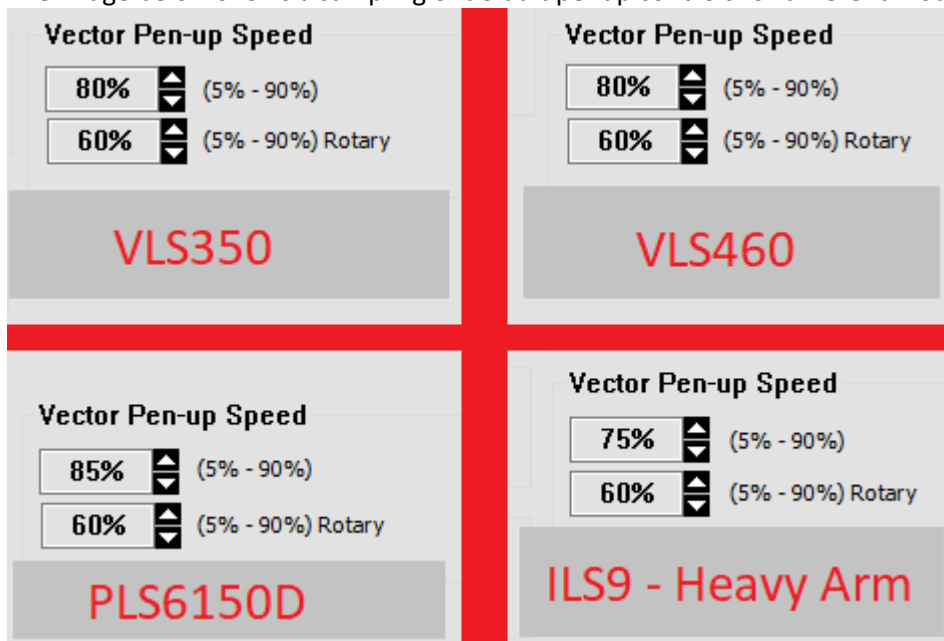
If the UCP is newly installed on a computer that has never had a ULS driver on it previously, then the default pen up speeds will be loaded as soon as the engraver is connected to the computer and powered up.

If the customer has a previous UCP on his or her computer, then the values for the spinner will be loaded from the MVXINFO.INI file on the customer's computer. The customer can then change both spinners to whatever values they wish and those values will be saved. It is not recommended to manually edit the MVXINFO.INI file as this may cause other issues and it is very easy to change the penup values without doing so.