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AWC708PLUS LCD DISPLAY OPERATION MANUALS V1.1

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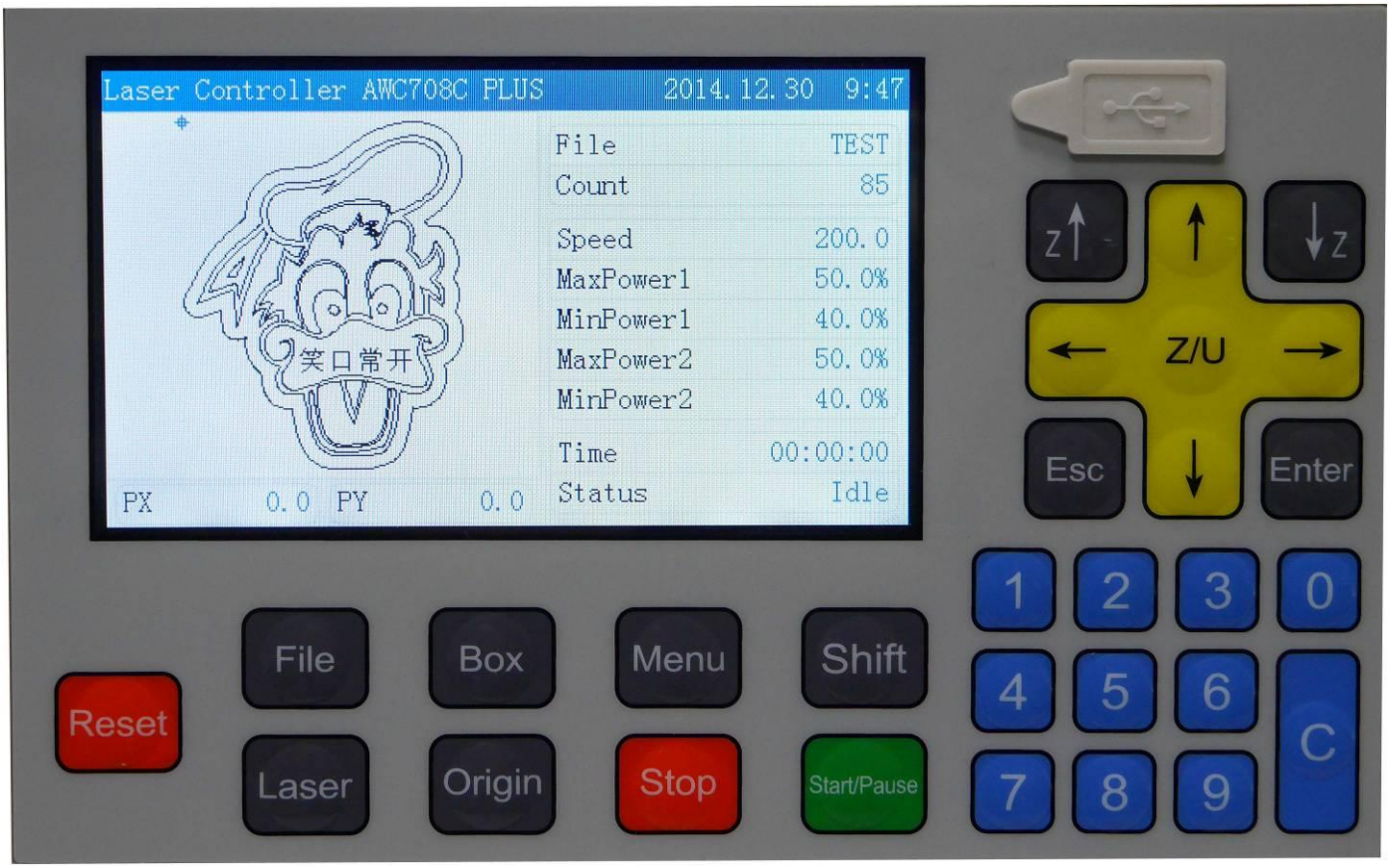
Category

1.Panel Preview



2.Buttons Function Introduction

【Rest】No matter what the state of the machine is, pressing this button will make it enter the resetting state.

【File】Browsing the files stored in the controller main board.

【Pulse】For optical testing. Once pulse pressed, once co2 laser tube output. It is for optic way adjustment.

【Box】Testing the working area and origin point of the current file.

【Origin】Setting machine’s starting point.

【Menu】To present the main menu.

【Stop】Once it has been pressed, the working machine will be stopped. And location would be back to the planned origin point.

【Shift】The second function switching button. To be used for exchange the Max and mini power of the four laser sources in the main menu.

【Start/Pause】Pause the machine and keep it stay at location.

【Z↑】【Z↓】Directly control the upward, downward, left and right movement in the main menu. When not covered by cursor, it can be used for parameters changing. When Cursor covered the 【↑】【↓】【←】【→】, it could be used for moving the cursor。

【↑】【↓】【←】【→】For moving the XY Axes. Also could be used for the current cursor in current view. What's more, you may use it to change the options in the current view.

【Z/U】Z axis with auto focus. And Z, U, V, W axes movement functions.

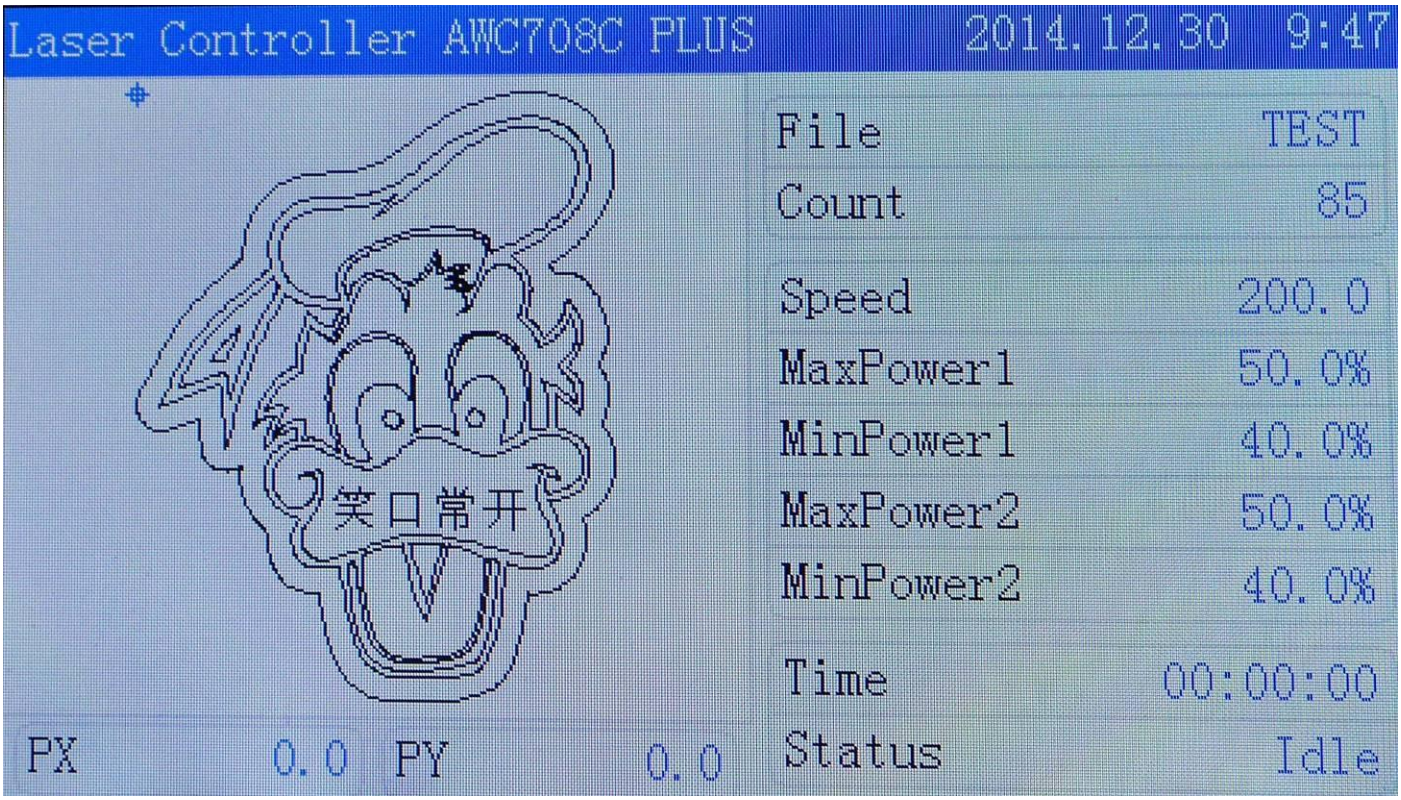
【ESC】Exit edit mode (Exit cursor). Return to previous menu.

【Enter】Enter edit mode (start cursor). Confirm the current operation.

【Numbers 1-9】Quickly modify the parameters, as well as quick access to digital corresponding menu item.

【C】For backspace when you modify the parameters.

3.Main Menu Function Introduction



【Top bar】To display control system software version, date and time.

【File】To display the file name currently being processed. (Not allowed Chinese name)

【Count】To show the finished number

【Speed】To display the default speed of this current file.

【MaxPower 1 MinPower1 MaxPower2 MinPower2】To display max and mini power of laser 1 and 2.

Max power means working power. Mini power means turning power.

【Time】To display the time machine already worked with this task..

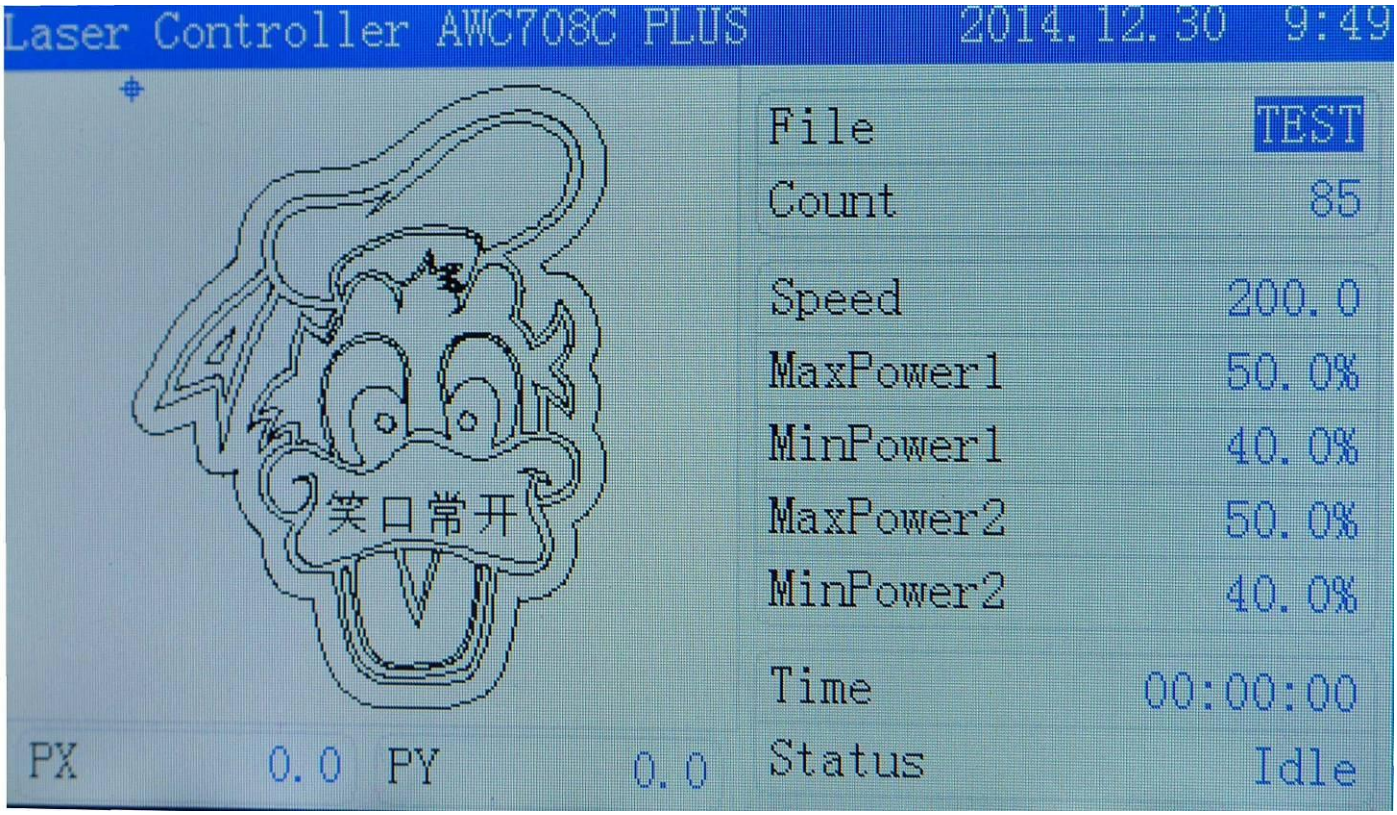
【Status】To display the machine states. Including working state, idle state, pause state. There will be a percent way to show the working process of the current file under working state.

【PX PY】To display the XY coordinate in the working state.

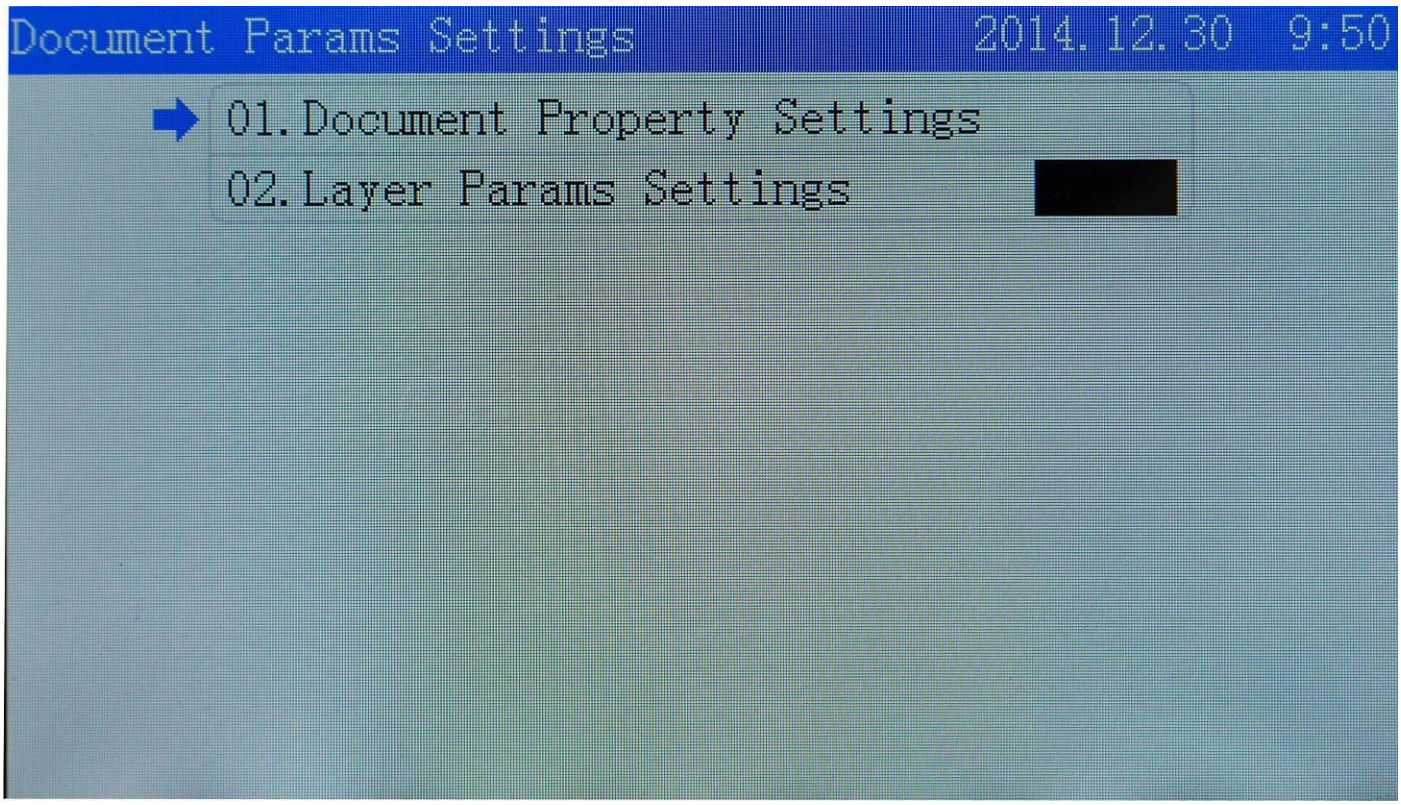
4.Main Menu Function Settings

4.1Document parameters settings

In the Main menu area press 【Enter】to make the file name be anti-color displayed.



Second press【Enter】to enter file parameters setting area. Move cursor to【Document Params Settings】, Press 【Enter】to enter the document parameters settings area.



Move cursor to the options you want to change, input numbers, then press【enter】to finish it.

【Repeat Count】Machine repeat working times.

【Repeat Delay(s)】The period between the front file finished and the next repeat working the same file.

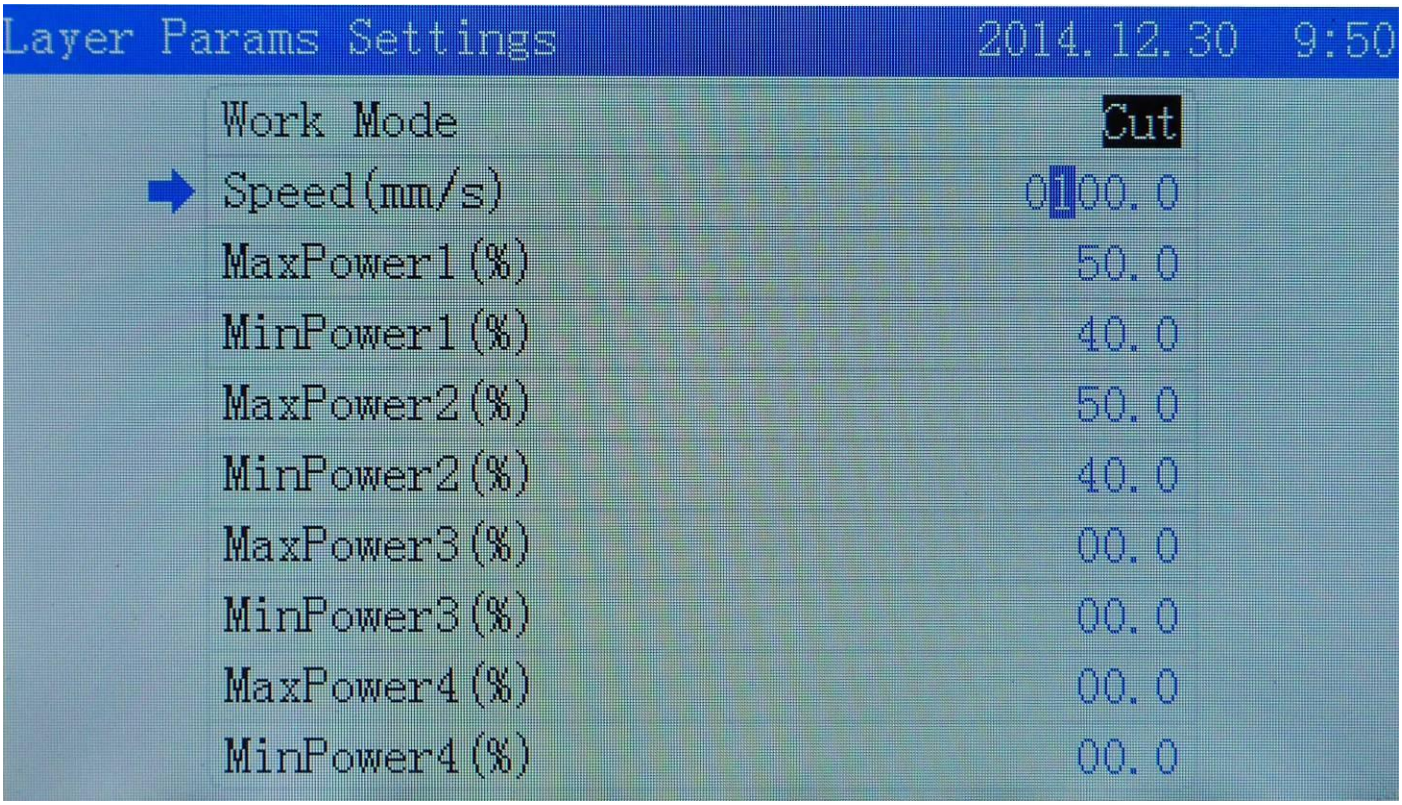
【Feed Distance(mm)】Distance of each movement of the feeding axis .

【X Size(mm)】The size in the X direction of the file

【Y Size(mm)】The size in the Y direction of the file

4.2 Layer Parameters Settings

In the file parameters setting area, press 【↓】to move the cursor to 【Layer Params Settings】, Press 【Enter】to enter Layer Parameters Settings area.



【Work Mode】To choose the working state of the processed file.

【Speed(mm/s)】The speed of the processed file.

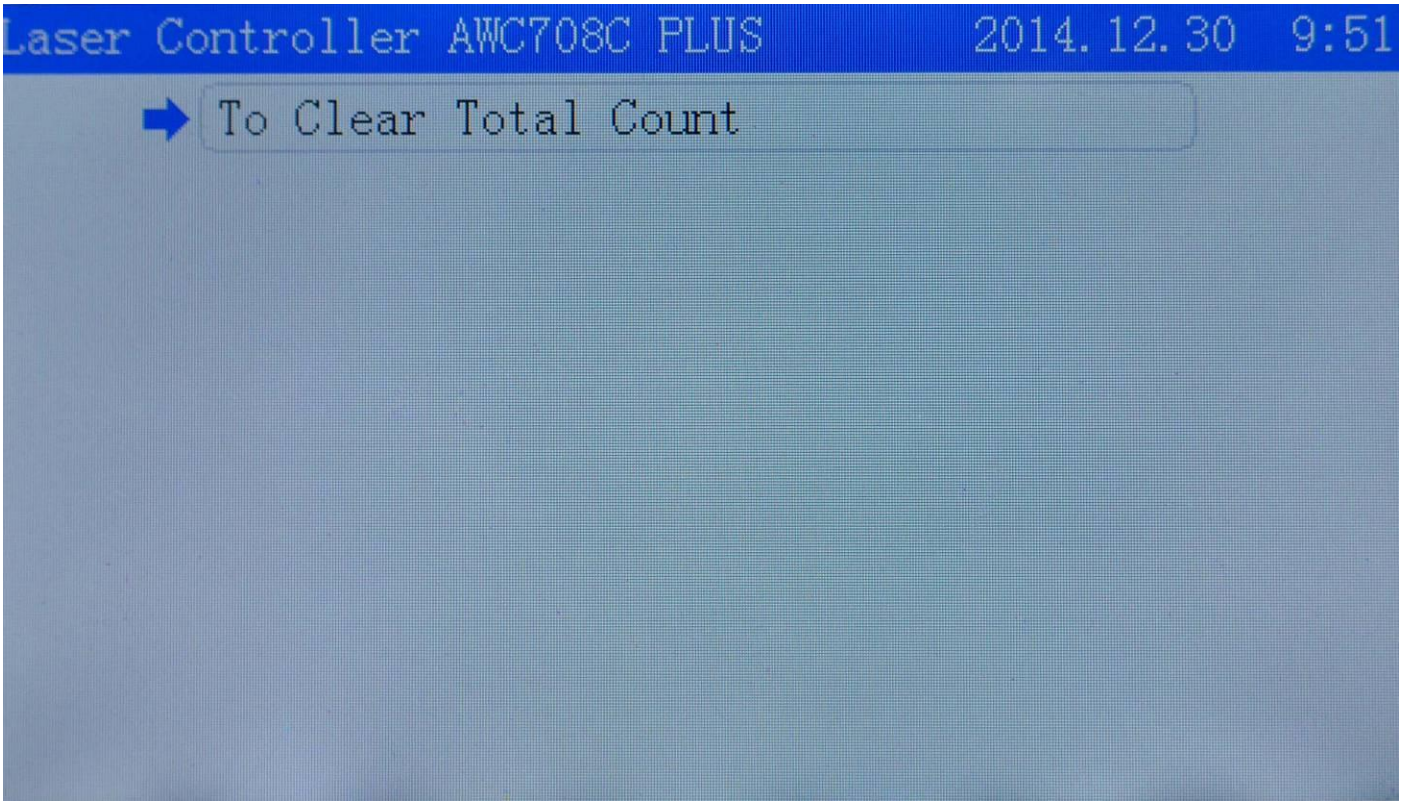
【Max Power】The max power of the laser head also means the working power of laser.

【Min Power】The mini power of the laser head also means the turning power of laser.

In the layer parameters area, move cursor to the options you want to change, input numbers then press【Enter】to finish it.

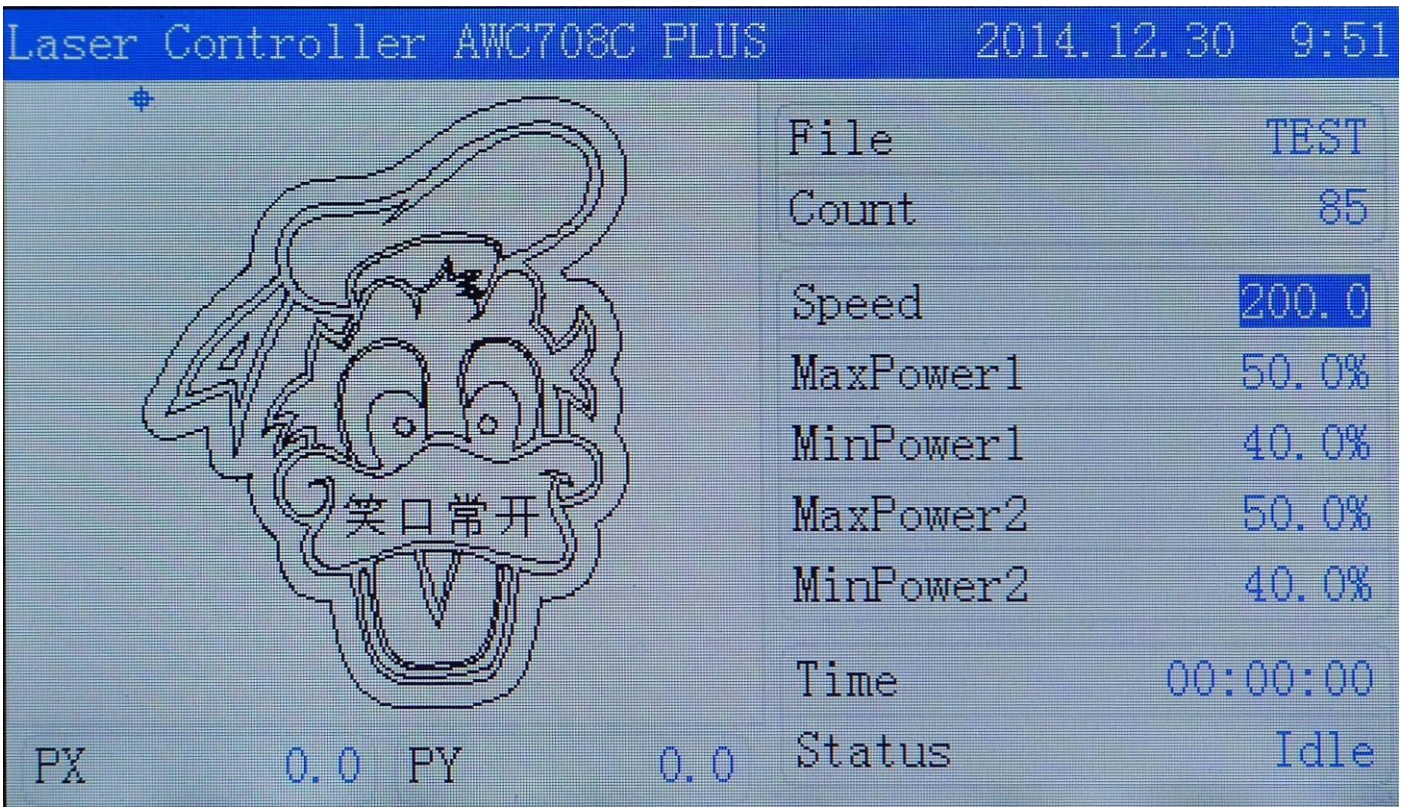
4.3 Cleaning Total Count

In the main menu press 【Enter】to make the cursor anti-color displayed. And move it to 【Count】, then Press【Enter】to move it to 【To Clear Total Count】and press【Enter】

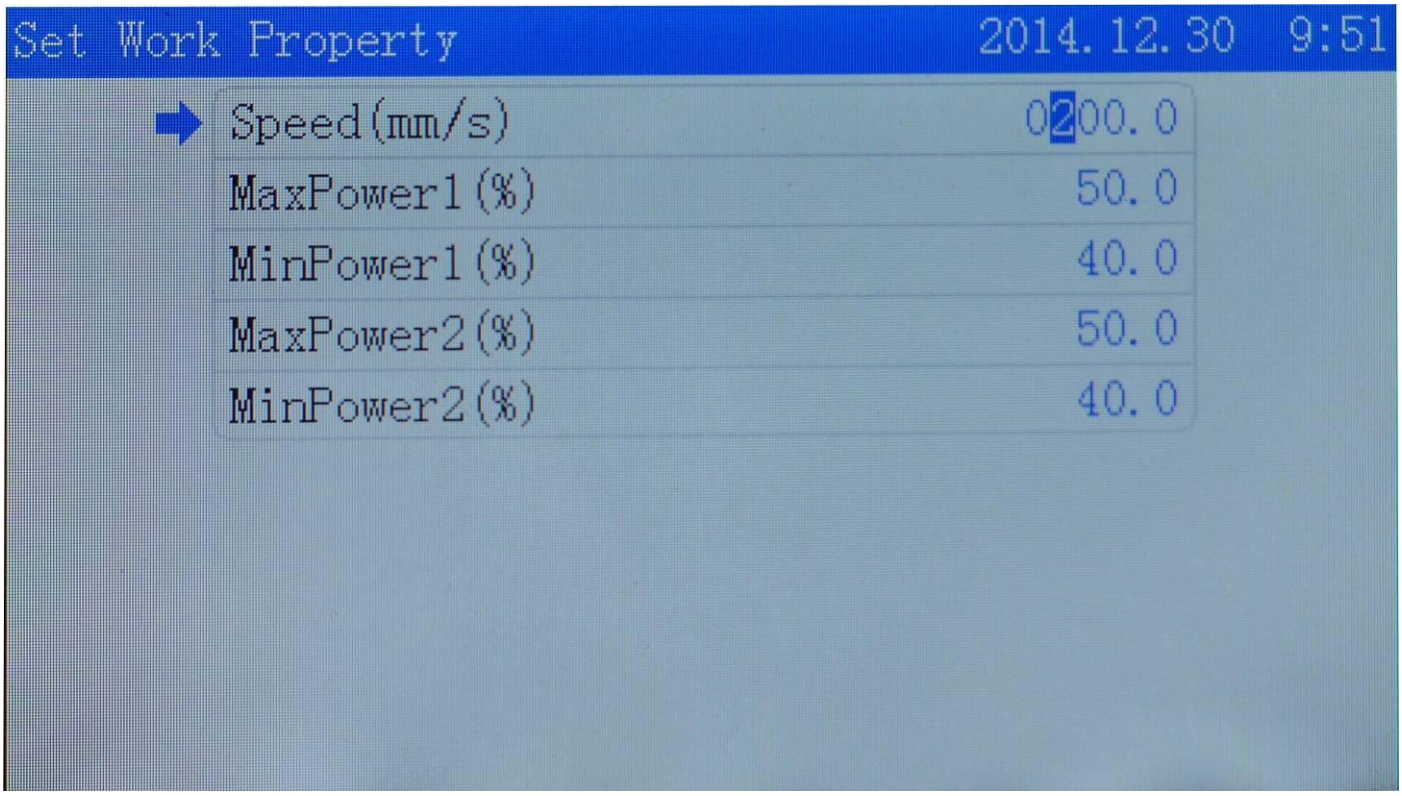


4.4 Set Work Property

In the main menu press 【Enter】to make the cursor anti-color displayed.Move it to 【Speed】, press 【Enter】then find【Set Work Property】.



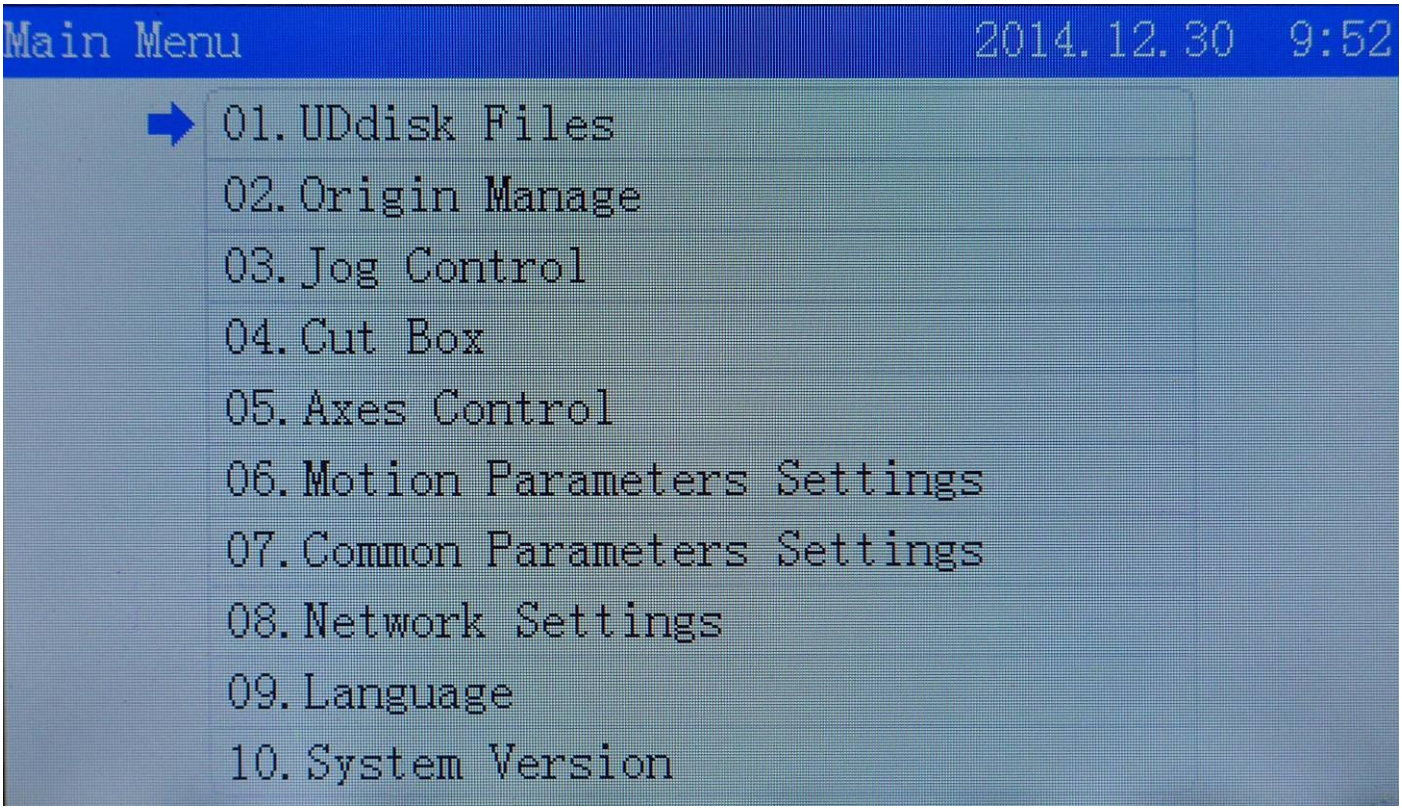
Move cursor to the options you want to change, input numbers then press【Enter】to finish it.



5.Main Menu Function Settings

5.1 U Disk Files

Insert U disk to USB port. After U disk indicator worked，press【Menu】to enter the main menu，move cursor to【U Disk Files】 then press【Enter】to enter U disk files management.



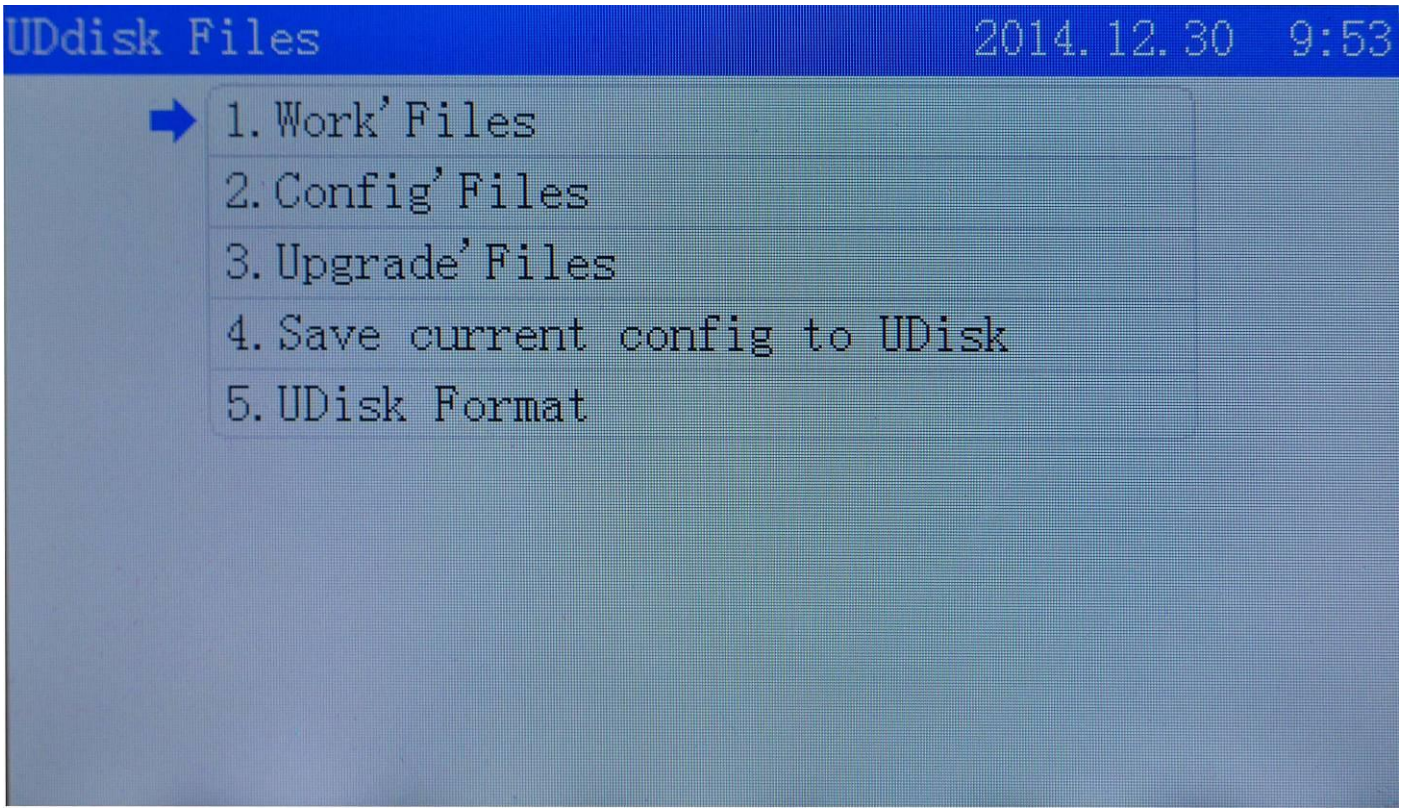
① ※ U disk should be formatted to FAT 32 File system.Quick Format is forbidden .Any other files formations are not supported.

② ※ Recommend use U disk with Indicator to ensure if U disk connected successfully with main board

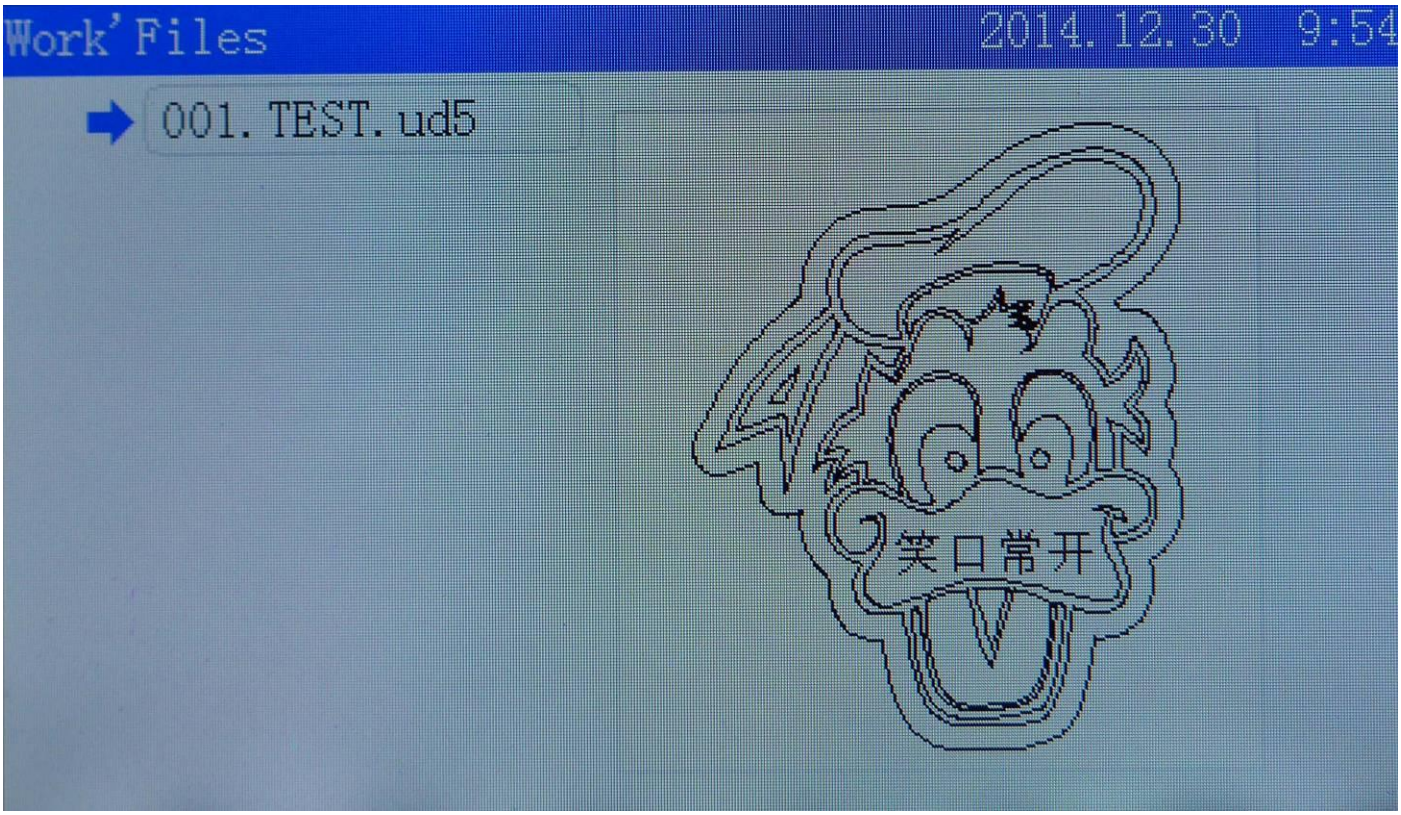
③ ※ Please use origin and regular U disk.When the U disk has never been able to read , try to replace other U disk.

5.1.1U Disk Work Files

Move cursor to 【Work' Files】then press【Enter】



In panel the working file in U disk will be presented.The right side shows the working file previewing.Press【Enter】to copy the working file from U disk to main board storage.



※The working file in U disk means off-line file saved in U disk that with file suffix ud5.Files with JPEG

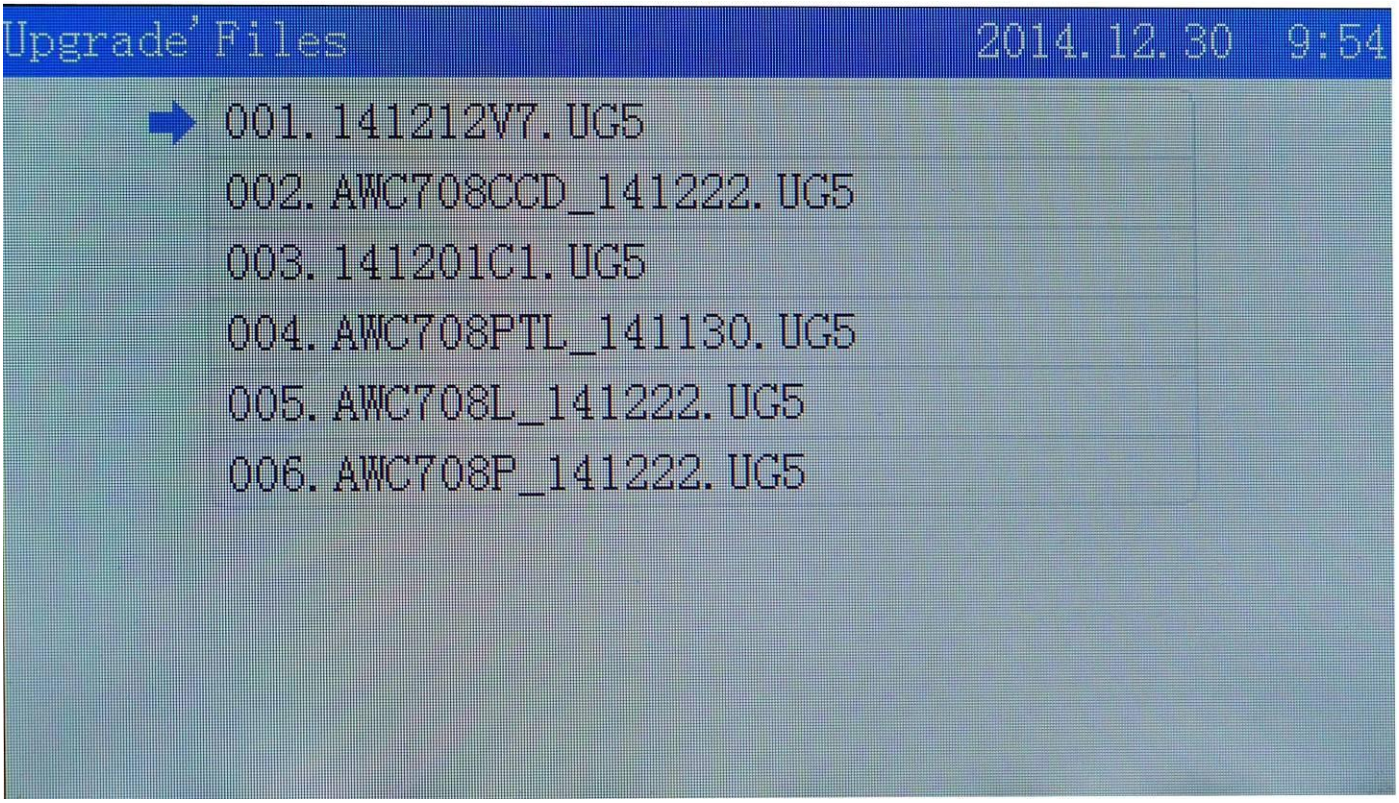
formation saved in U disk cannot be read directly.

5.1.2 Config Files.

Move cursor to 【Config' Files】, press【Enter】to enter it.Move cursor to the file which you need to copy to main board.Press【Enter】to finish it.

5.1.3 Upgrade Files

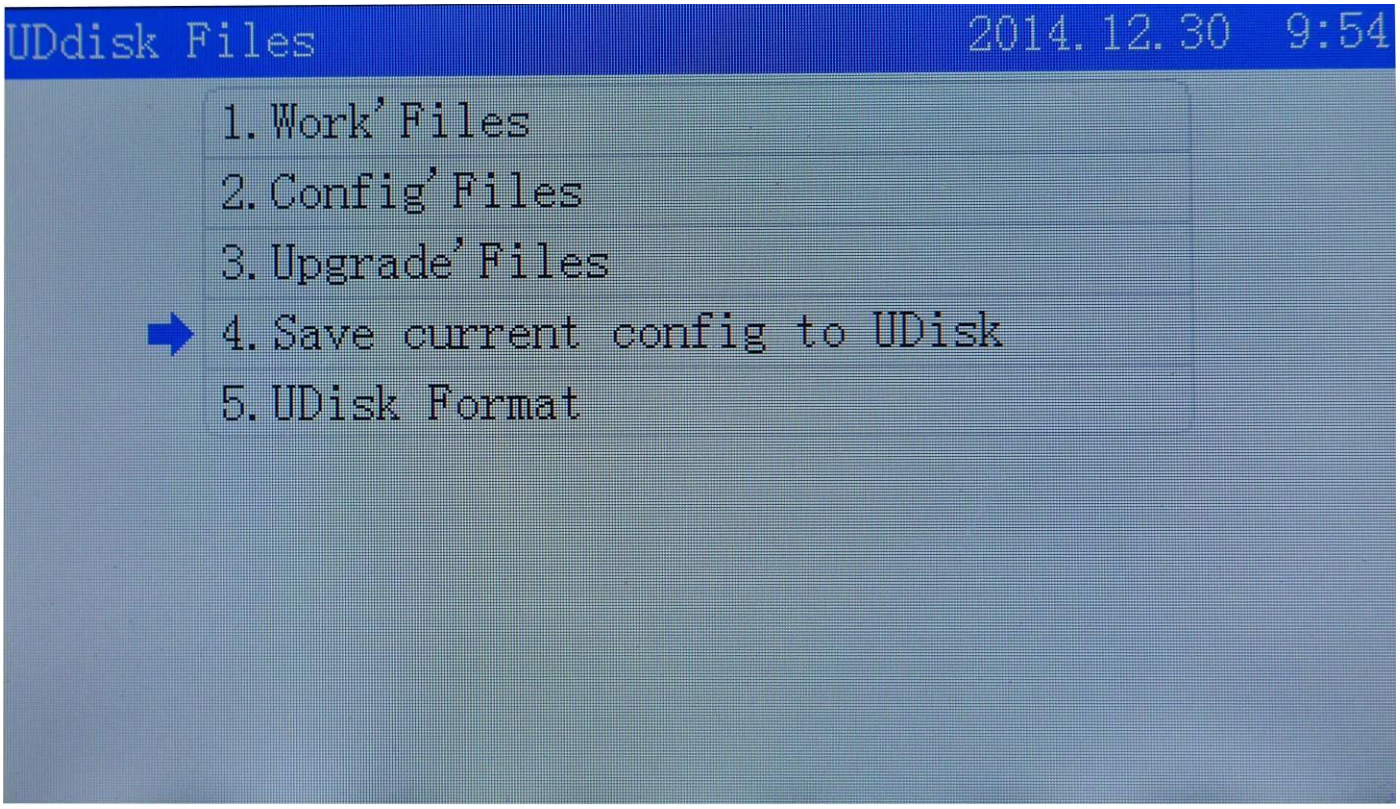
Mover cursor to 【Upgrade' Files】and press【Enter】to enter Upgrade Files area.Mover cursor to the file you need, press【Enter】then it will be finished.PLUS version upgrade files are AWC708P……



※Don't cut off electricity before upgrade finished.Or it may lead a burnt out.Upgrade period lasts 30 seconds.After that,main board will finish a resetting.

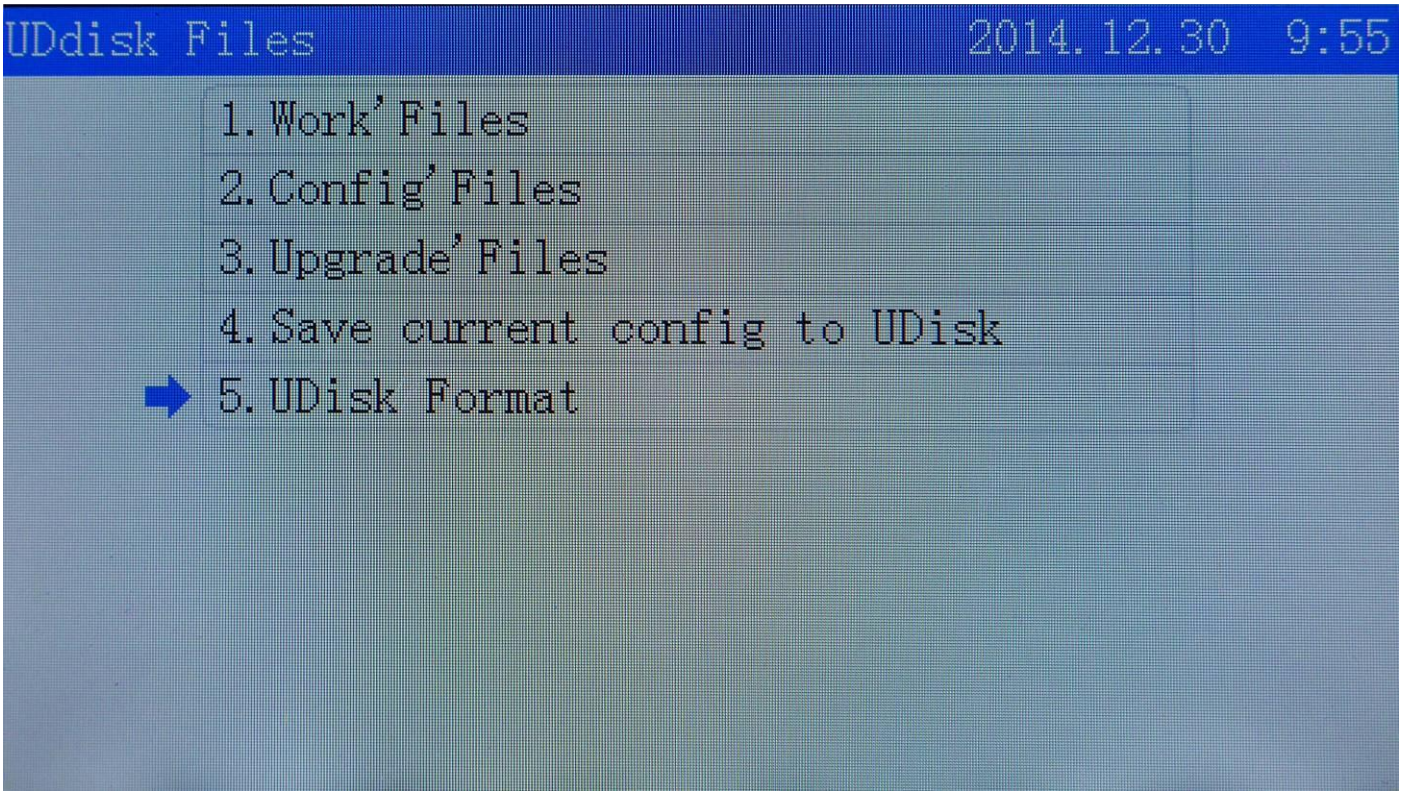
5.1.4 Save Current Config to U Disk

Move cursor to【 Save current config to U disk】then press【 Enter】to finish it.The file saved as a "Params.cf5" name.



5.1.5 U Disk Format

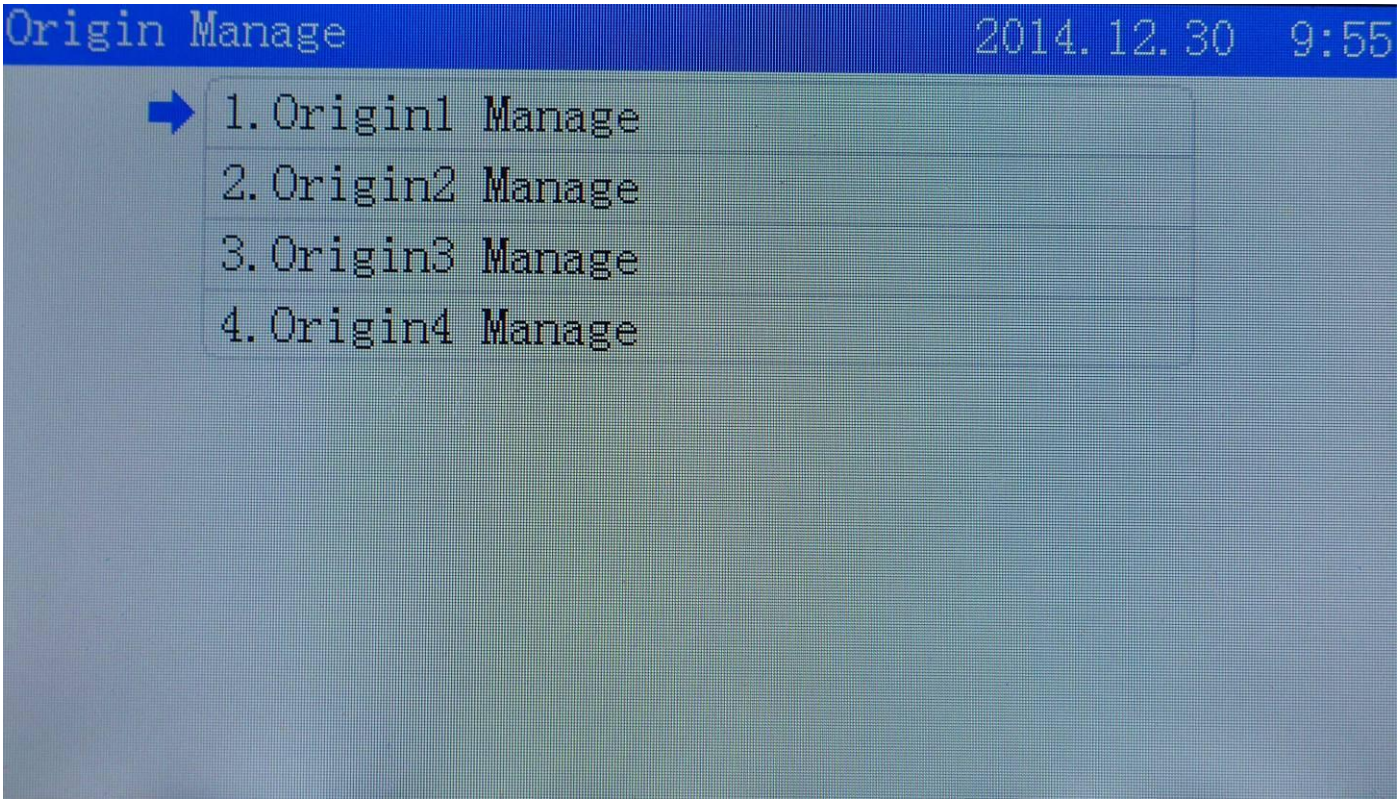
Move cursor to 【U Disk Format】and press【Enter】



※Choose "U disk format" will lead all files lost!

5.2 Origin Manage

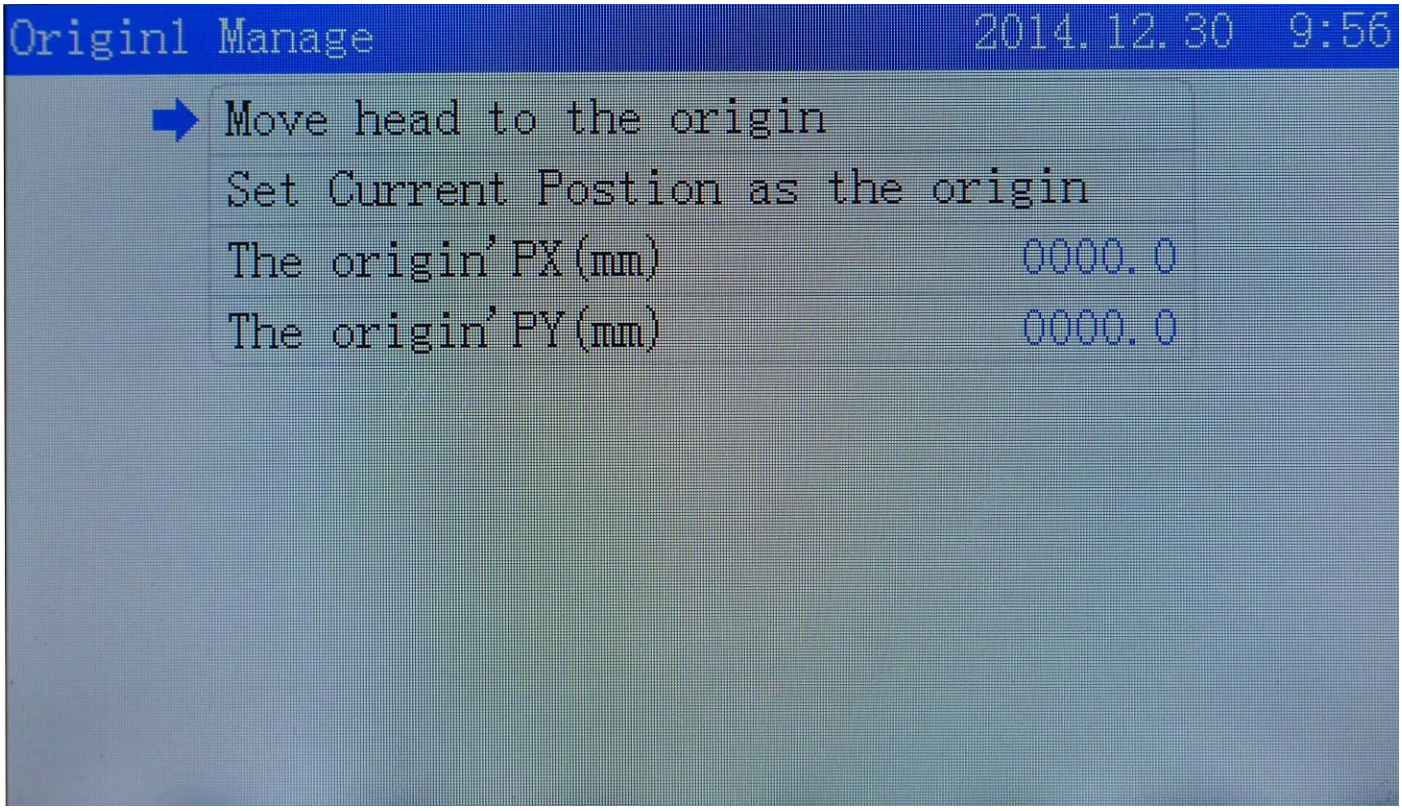
In main manual area press【Menu】then move cursor to【Origin Manage】.



Move cursor to【Origin1 Manage】press【Enter】to enter the Origin 1 management interface.

Move cursor to【Set current position as the origin】press【Enter】to set the current actual laser head position as origin point.

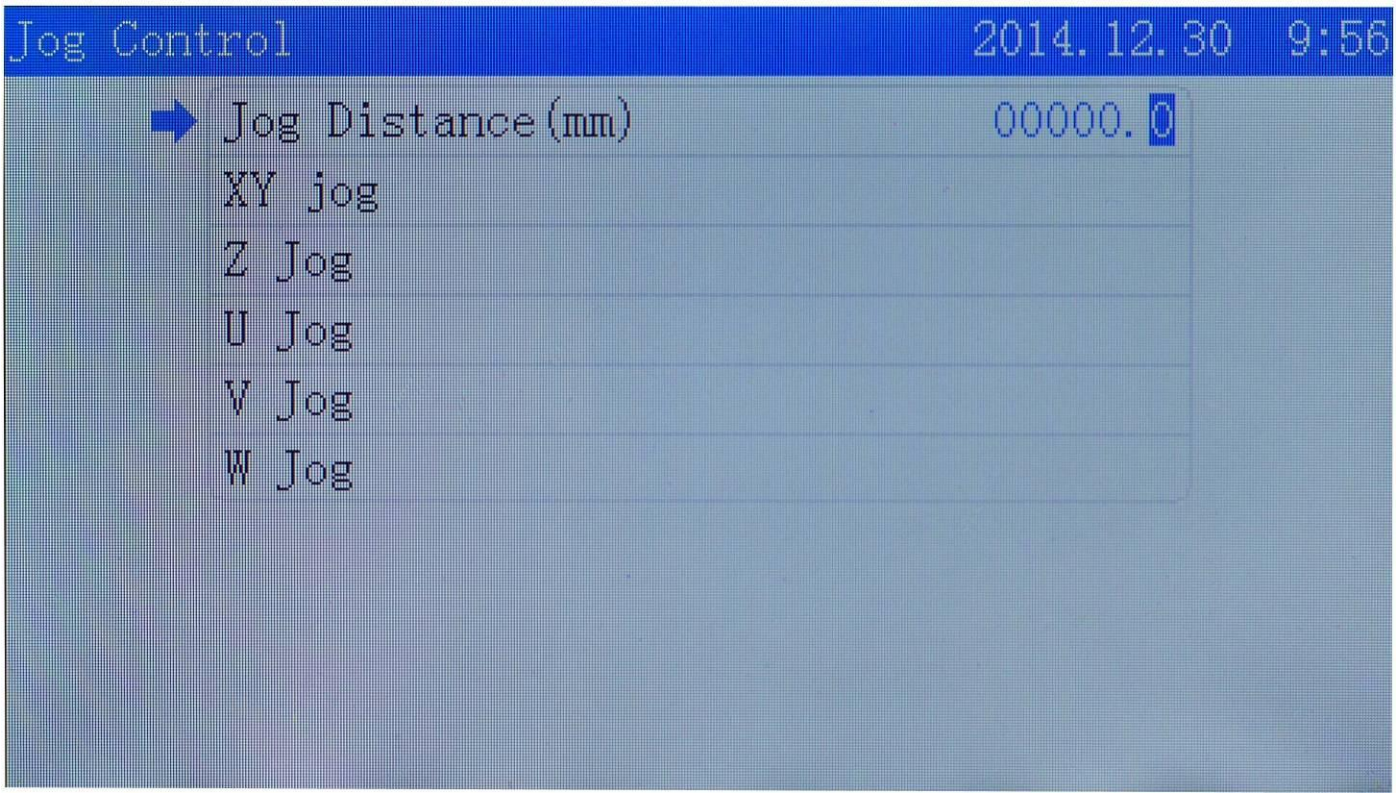
Move cursor to “The origin’PX(mm)”and “The origin’PY(mm)” .Input different numbers to change the location.Press【Enter】to confirm the changes.



5.3 Jog Control

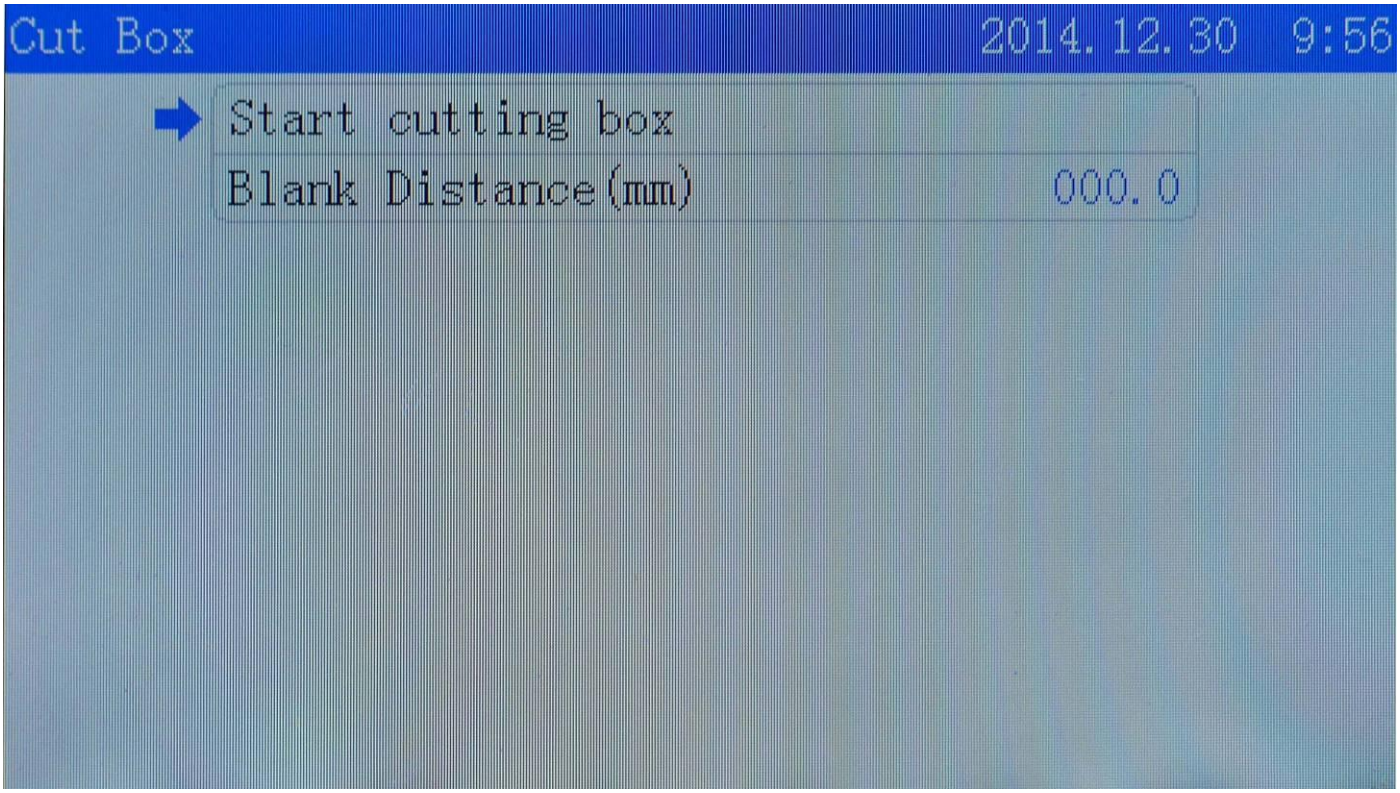
In main menu interface press【Menu】.Move cursor to 【Jog Control】press【Enter】.Input numbers to change the jog distance you want to change.Press【Enter】to finish it.

In Jog control interface press【Z↑】【Z↓】move cursor to relative joy axes.Press【↑】【↓】【←】【→】can control their movement。



5.4 Cut Box

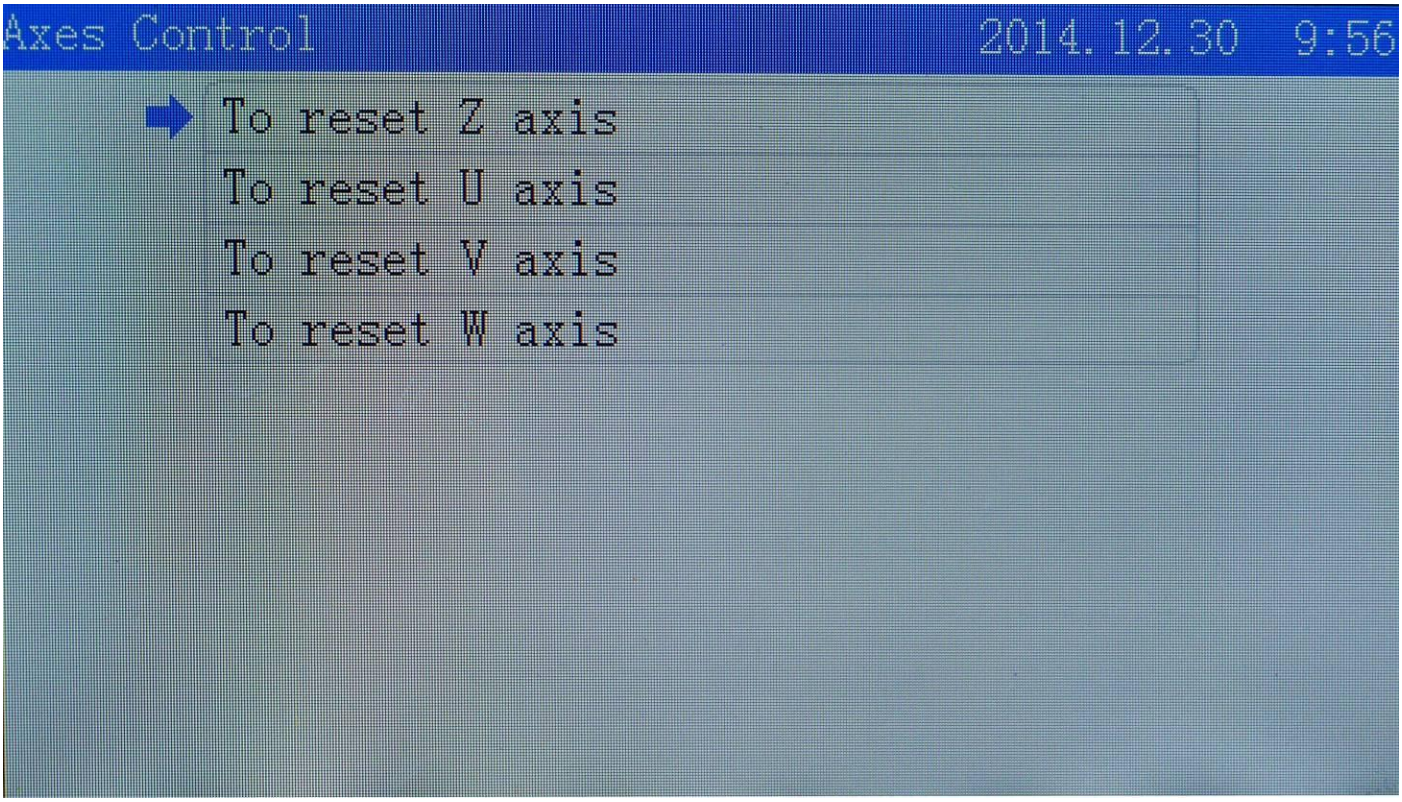
In main menu interface press【 Menu】 and move cursor to【Cut Box】.Press【Enter】to enter “Cut box”.Move cursor to “Blank Distance(mm)”.Input numbers to edit the blank distance.After that you can choose 【Start cutting box】and press【Enter】to start cutting box.



【Blank Distance(mm)】The distance from File box position to actual cutting box position.

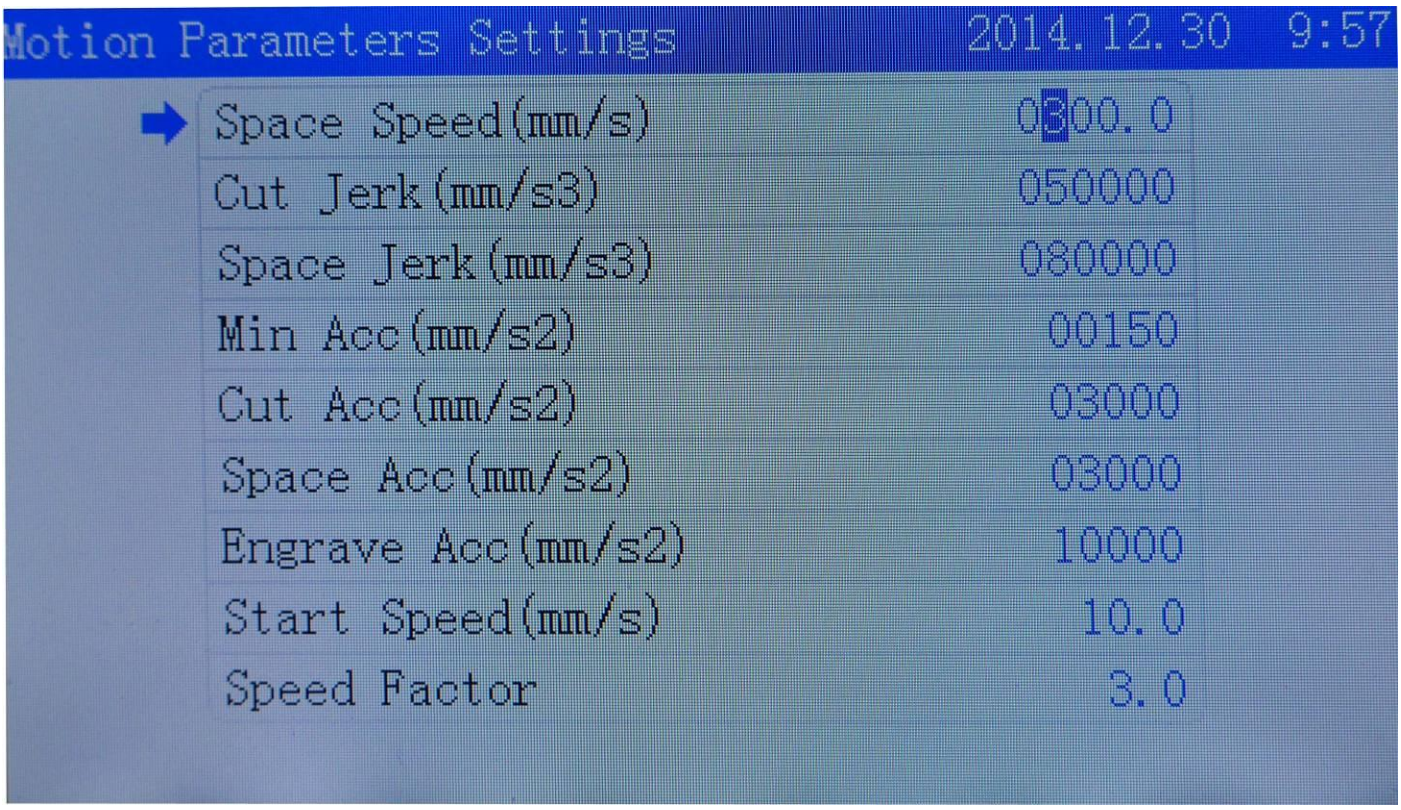
5.5 Axes Control

In main menu interface press【 Menu】 and move cursor to【Axes Control】Press【Enter】to enter “Axes Control ”Interface.Move cursor to the axes option you need to do reset.Press【Enter】to finish it.



5.6 Motion Parameters Settings

In main menu interface press【Menu】.Move cursor to 【Motion Parameters Settings】press【Enter】.Input numbers to change options you want.Press【Enter】to finish it.



【Space Speed(mm/s)】When laser not output,the movement speed of laser head.

【Cut Jerk(mm/s3)】 Cutting speed jerk of axes.

【Space Jerk(mm/s3)】When laser not output,the Jerk speed of axes

【Min Acc(mm/s2)】Mini acceleration when axes doing speed up and down motion cutting.

【Cut Acc(mm/s2)】 Cutting acceleration when axes doing speed up and down motion cutting.

【Space Acc(mm/s2)】When laser not output,the acceleration speed of axes.

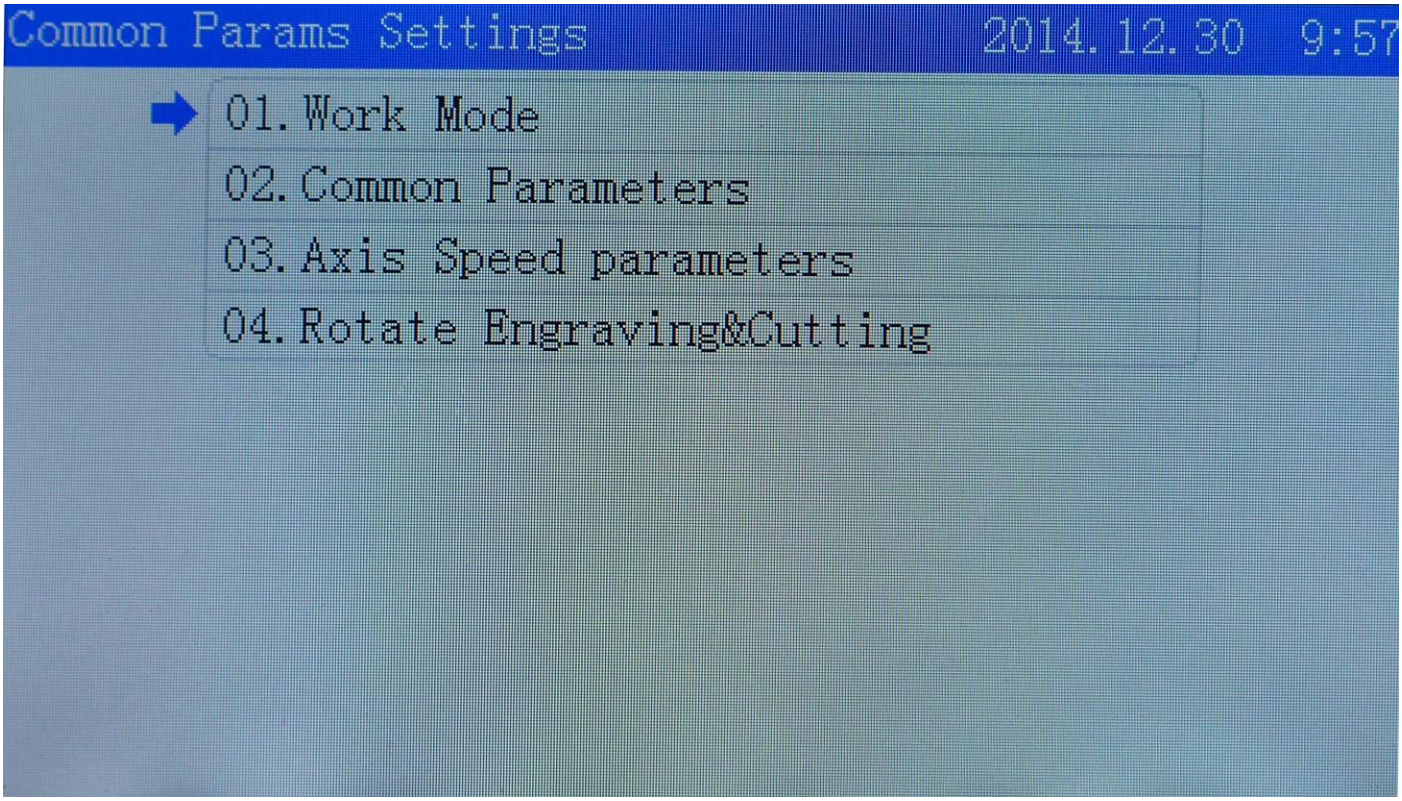
【Engrave Acc(mm/s2)】Engraving acceleration when axes doing speed up and down motion cutting.

【Start Speed(mm/s)】 Speed of axes from stillness to startup.

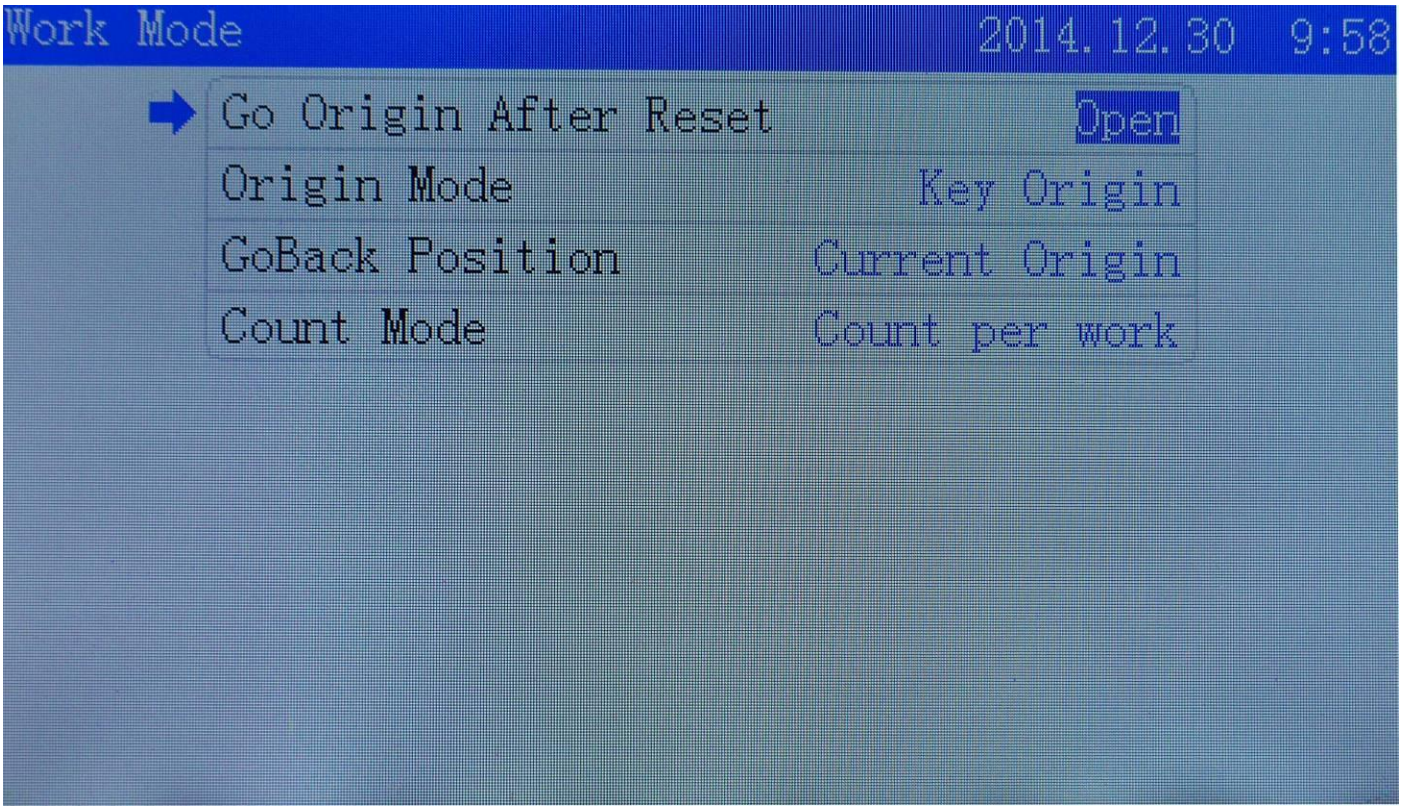
5.7 Common Parameters Settings

In main menu interface press【Menu】.Move cursor to 【Common Parameters Settings】press【Enter】.

5.7.1 Work Mode



Move cursor to 【Work Mode】press【Enter】.



Move cursor to【Go Origin After Rest】and press【←】【→】.Can choose “back to origin point after a reset” as on or off.

Move cursor to【Origin Mode】and press【←】【→】.Can switch origin mode as【Software Origin】【Machine Zero As Origin】【Current Position】【Key Origin】.Press【Enter】to finish changes.

Move cursor to【GoBack Position】 and Press【←】【→】.Can switch back position mode as【Goback Machine Zero】【Current Position】【Current Origin】.Press【Enter】to finish the changes。

Move cursor to【Count Mode】and press【←】【→】to switch the count mode as【Count Per Work】【Count Per Light】【Single of Array】and press【Enter】to finish the changes.

【Go Origin After Reset】When it’s opened,laser head will be back to Origin after resetting.Or It will stay at machine origin point.

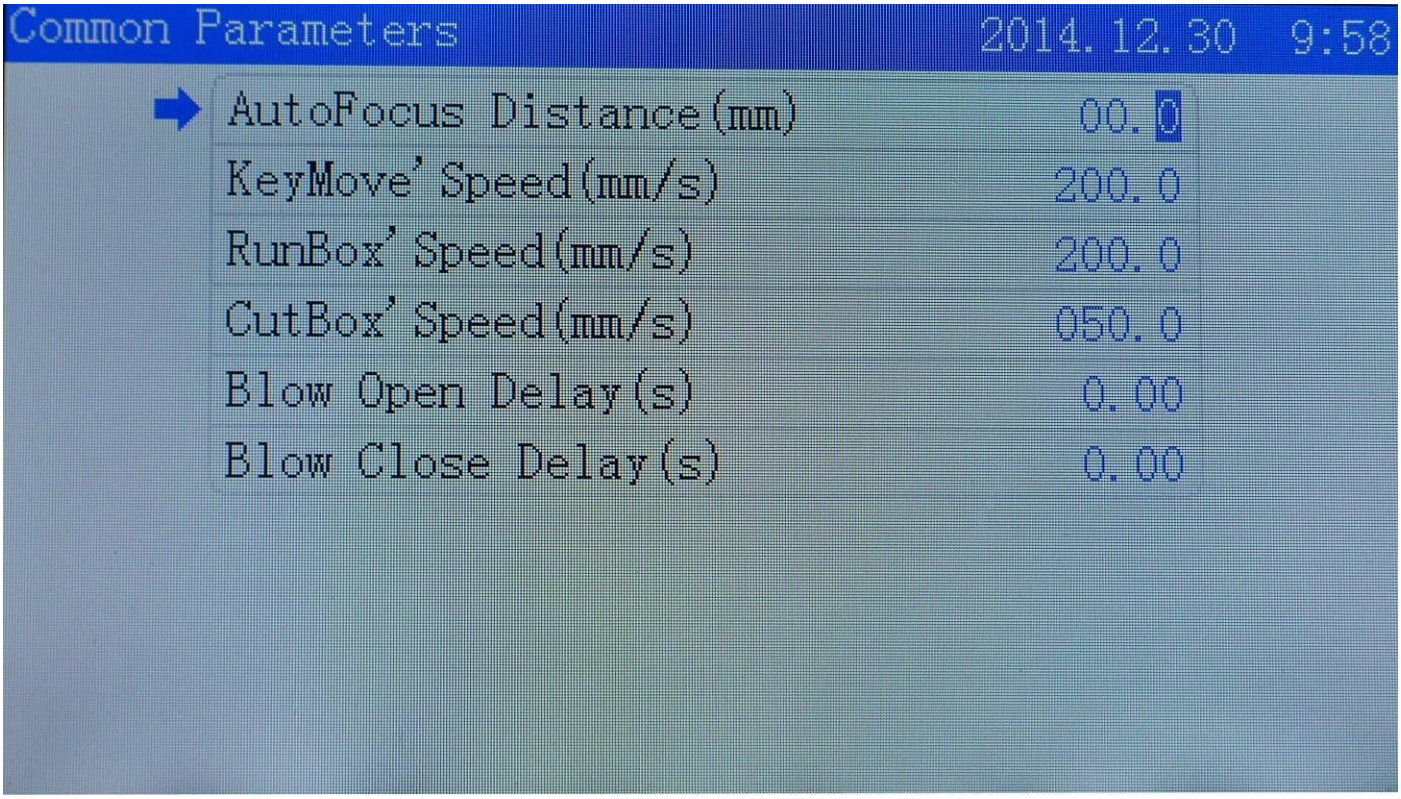
【Origin Mode】Current Origin,or keep the current origin point of machine;Key Origin,or press panel “Origin” button after laser head moved to the chosen position;Software Origin means the origin point when drawing a file;Machine Zero As Origin means set a appointed position as machine’s origin point.

【GoBack Position】Current Position means laser head stay at where task finished;Current Origin means go back to Origin point after that;Goback Machine Zero means back to machine zero point since all finished.

【Count Mode】 Count Per Work means it will be counted as once after all files cut;Count Per Light means it will be counted as once after laser optical output one time;Single of Array means it will be counted as once after one of all files in this task is cut.

5.7.2 Common Parameters

In main menu interface press【Menu】.Move cursor to 【Common Parameters】press【 Enter】.Input numbers to finish the changes and press 【 Enter】.



【AutoFocus Distance(mm)】The Distance from Laser head lens focus point to the origin point of Z axis.

【KeyMove’ Speed(mm/s)】The speed of axis movement when buttons in the panel pressed.

【RunBox’ Speed(mm/s)】 The speed of laser head running in space state,or running box without laser output.

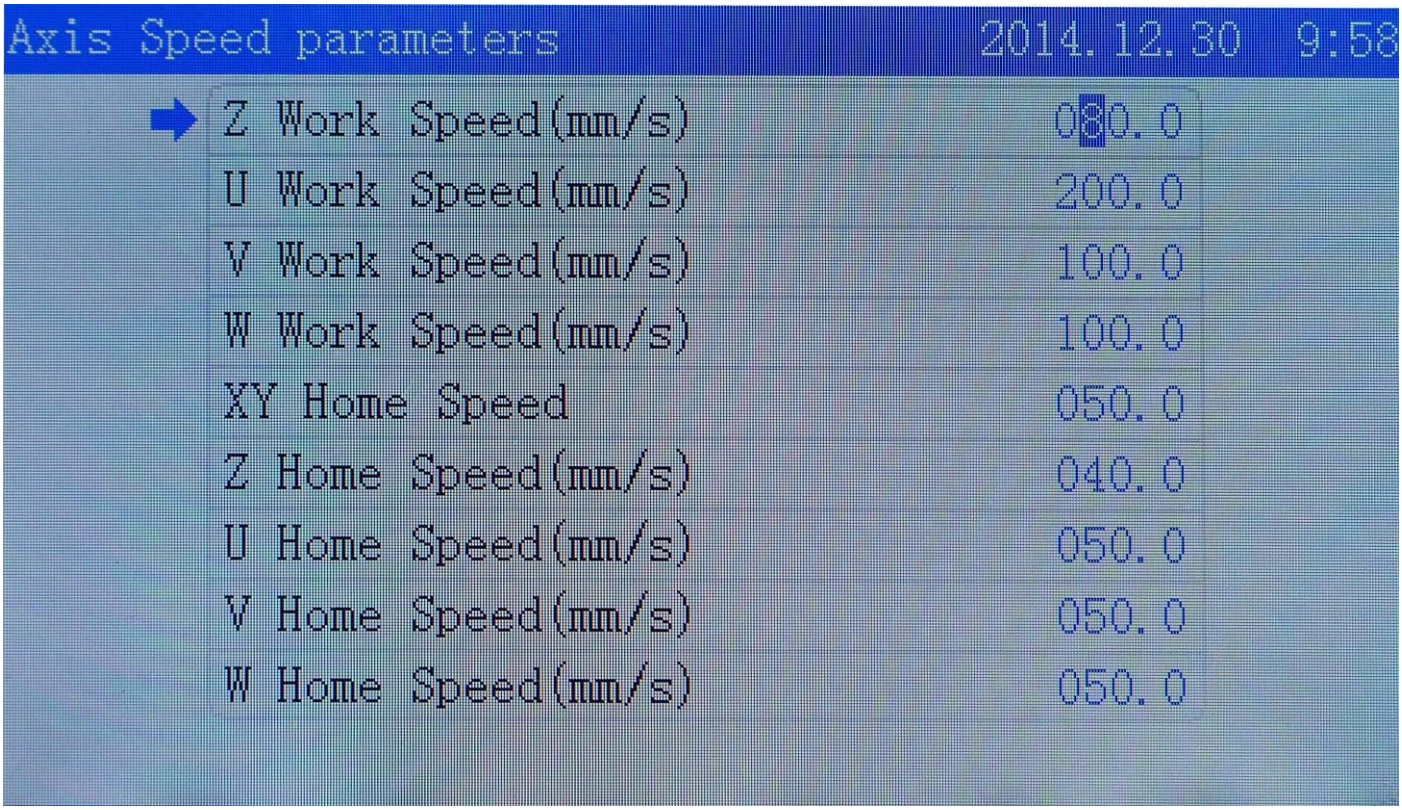
【CutBox’ s Speed(mm/s)】The speed of laser head optical output and cutting box.

【Blow Open Delay(s)】The period between laser head optical output and air blowing started.

【Blow Close Delay(s)】The period between laser head optical output stopped and air blowing stopped.

5.7.3 Axis Speed Parameters

In main menu interface press【Menu】.Move cursor to 【Axis Speed Parameters】press【 Enter】.Input numbers to finish the changes and press 【 Enter】.

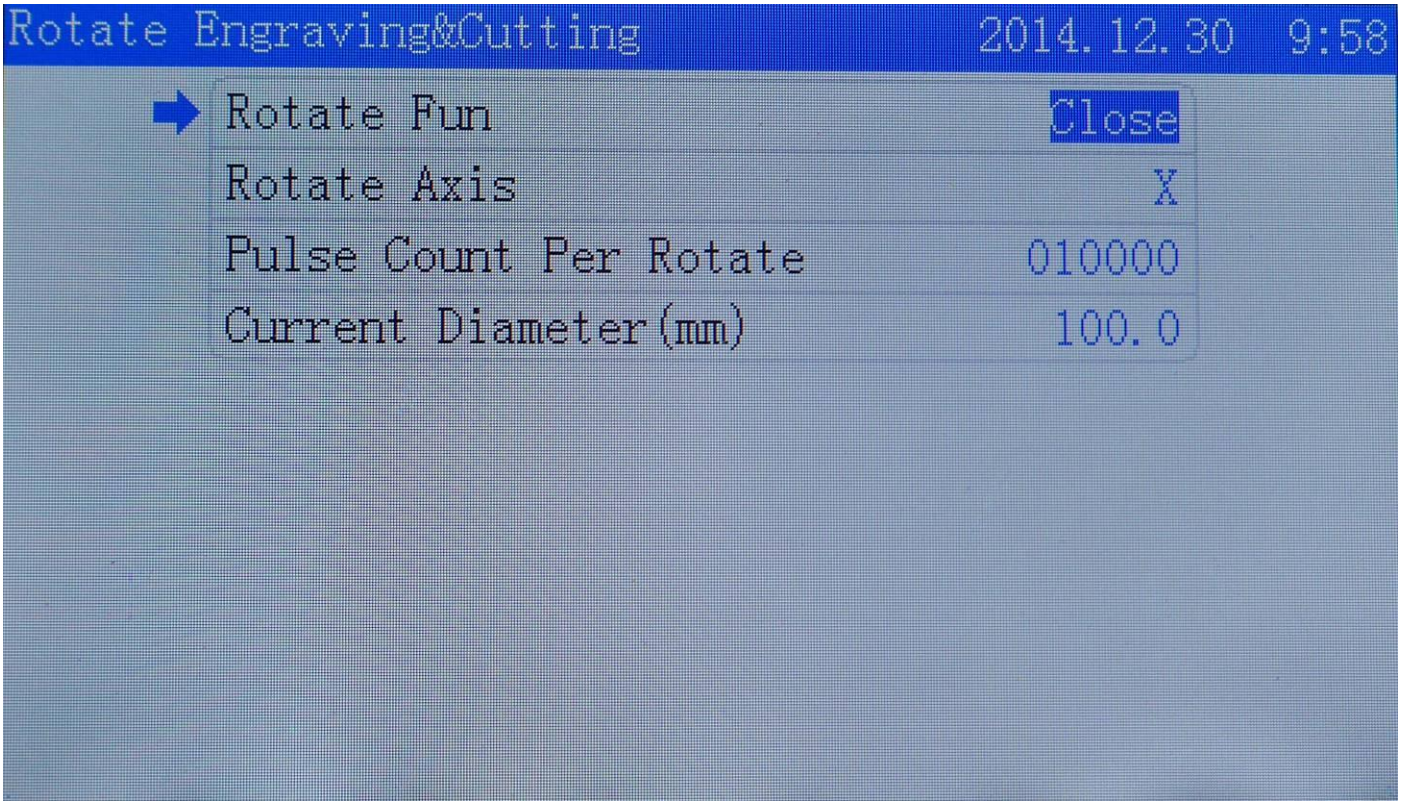


【Z/U/V/W Work Speed】Z/U/V/W axes working speed.

【XY/Z/U/V/W Home Speed】XY/Z/U/V/W axes resetting speed.

5.7.4 Rotate Engraving & Cutting

In main menu interface press【Menu】.Move cursor to 【Rotate Engraving & Cutting】and press【 Enter】, Press【←】【→】to switch each item. Input numbers to do relative changes. Then Press【Enter】to finish it.



【Rotate Function】The switch of rotate engraving function.Keep it open if you need.

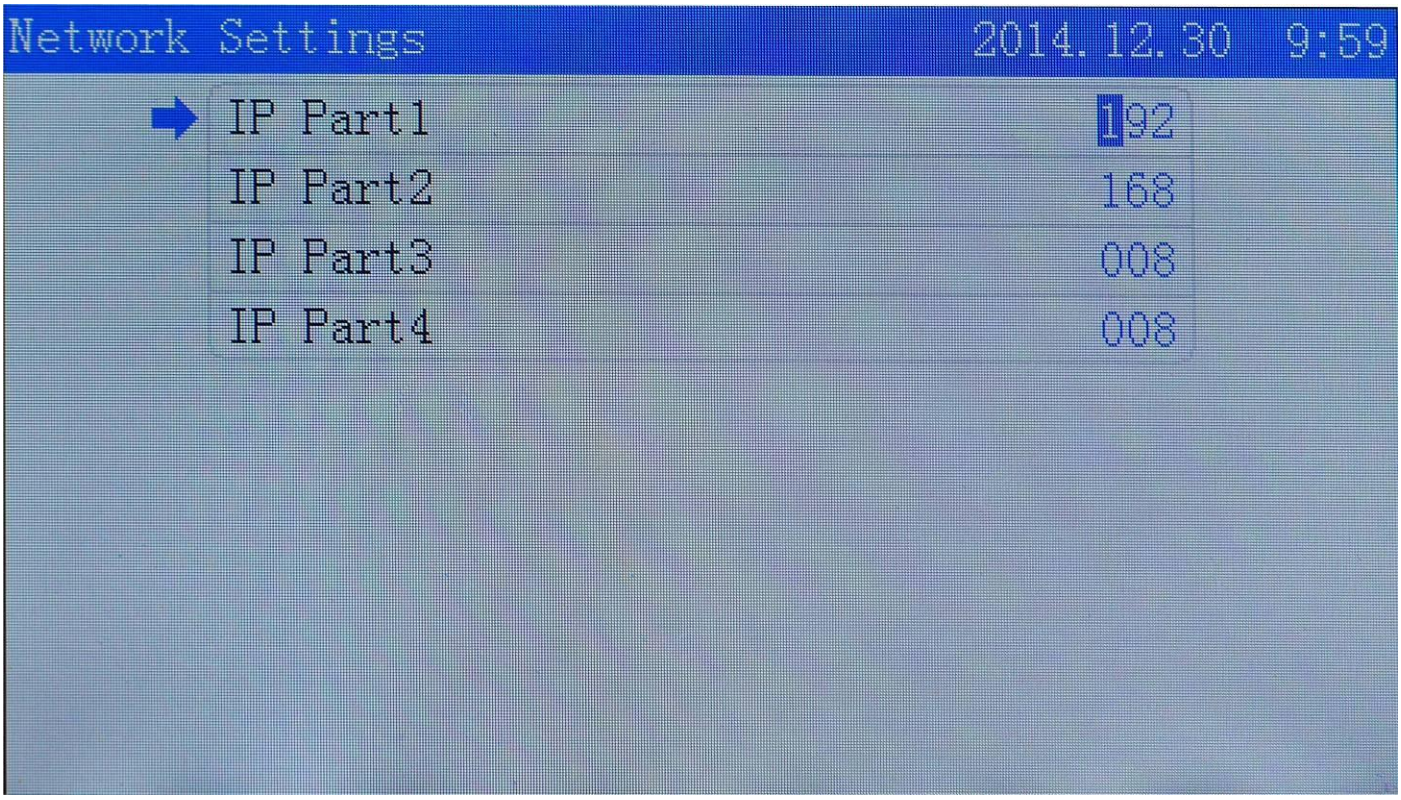
【Rotate Axis】the chosen axis when rotate engraving function be used with.

【Pulse Count Per Rotate】The Pulse parameters for motor to make rotate axis rotary one circle.

【Current Diameter(mm)】The diameter of processed materials.

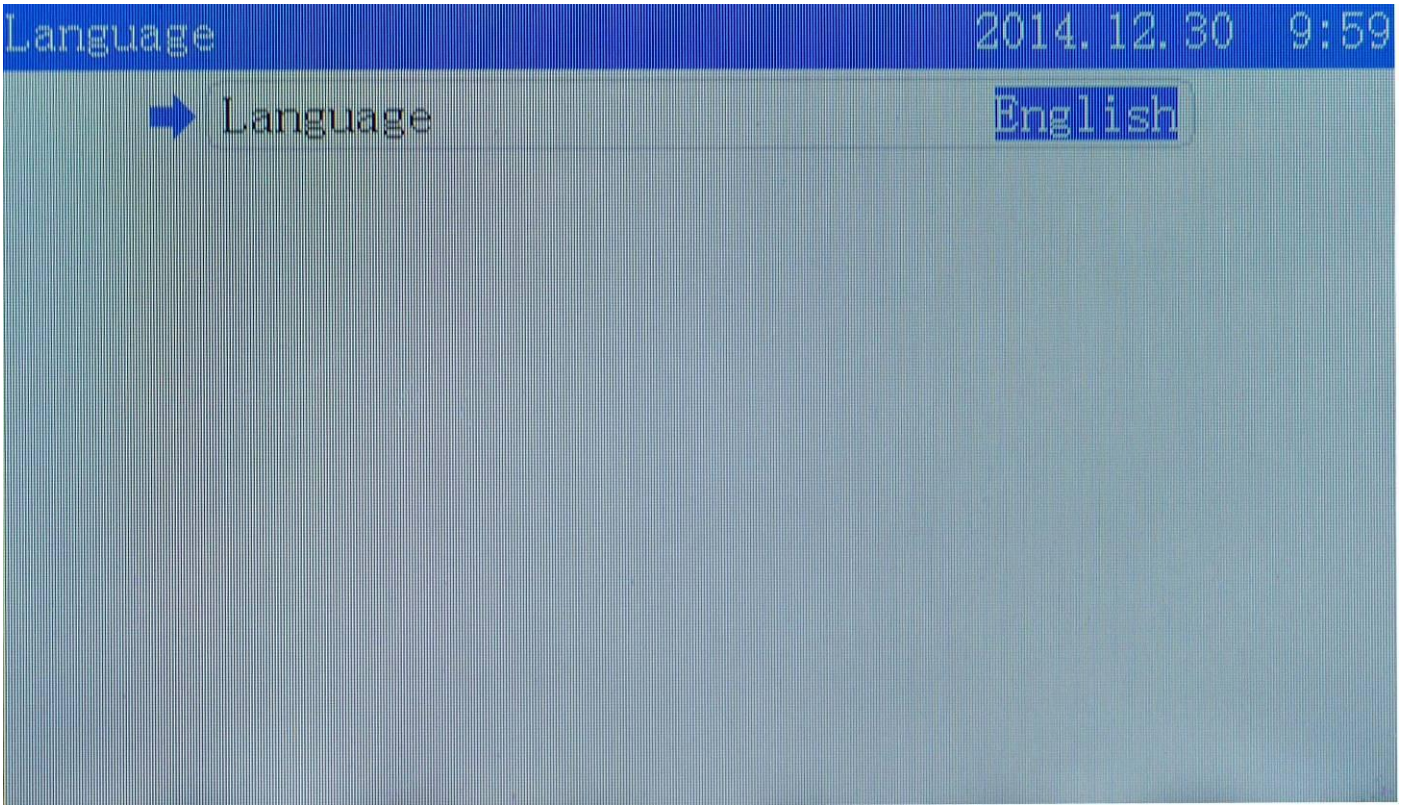
5.8 Network Settings

In main menu interface press【Menu】.Move cursor to 【Network Settings】and press【 Enter】.Then press【↑】【↓】to move cursor.Input numbers to finish the changes.



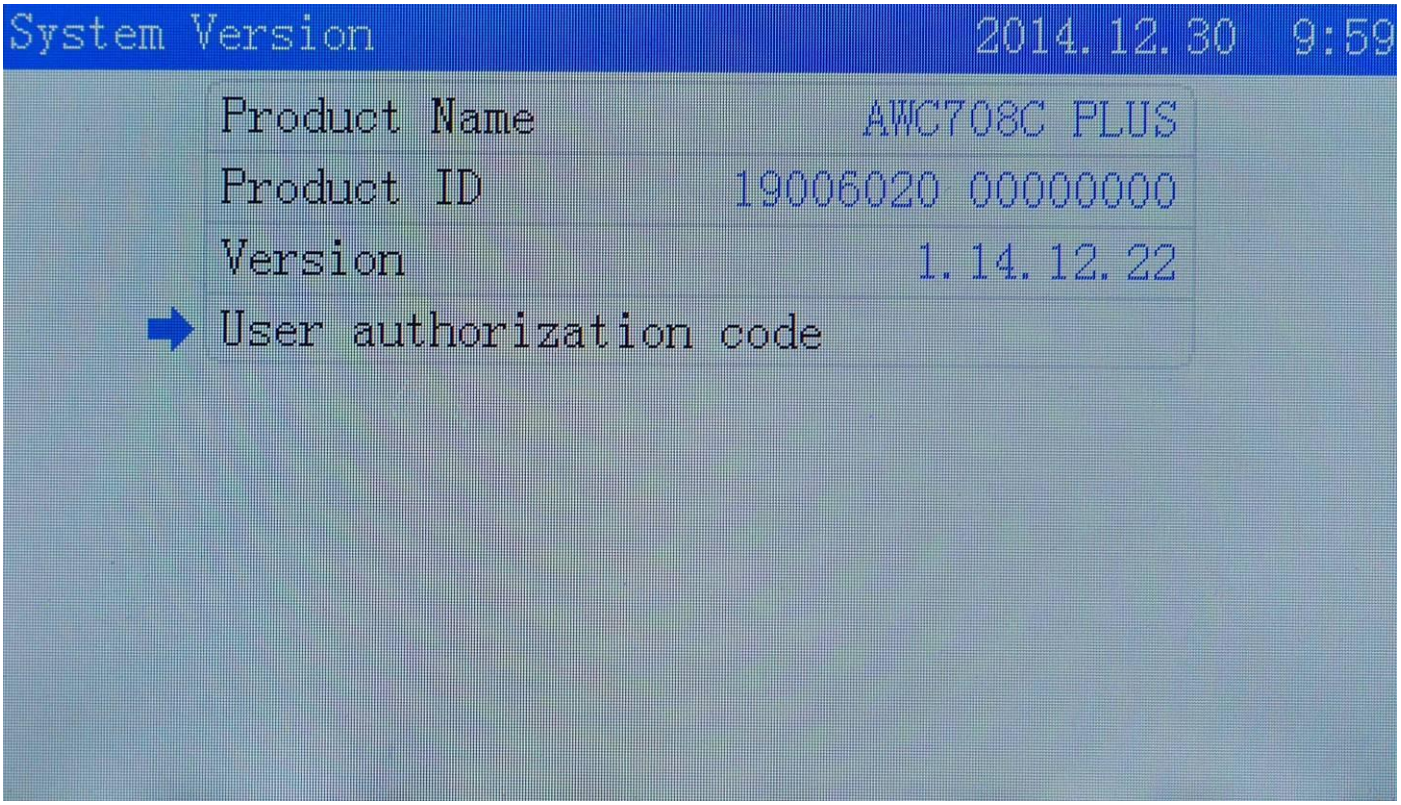
5.9 Language

In main menu interface press【Menu】. Move cursor to 【Language】and press【 Enter】. Then press【←】【→】to switch languages and press【 Enter】to finish it.



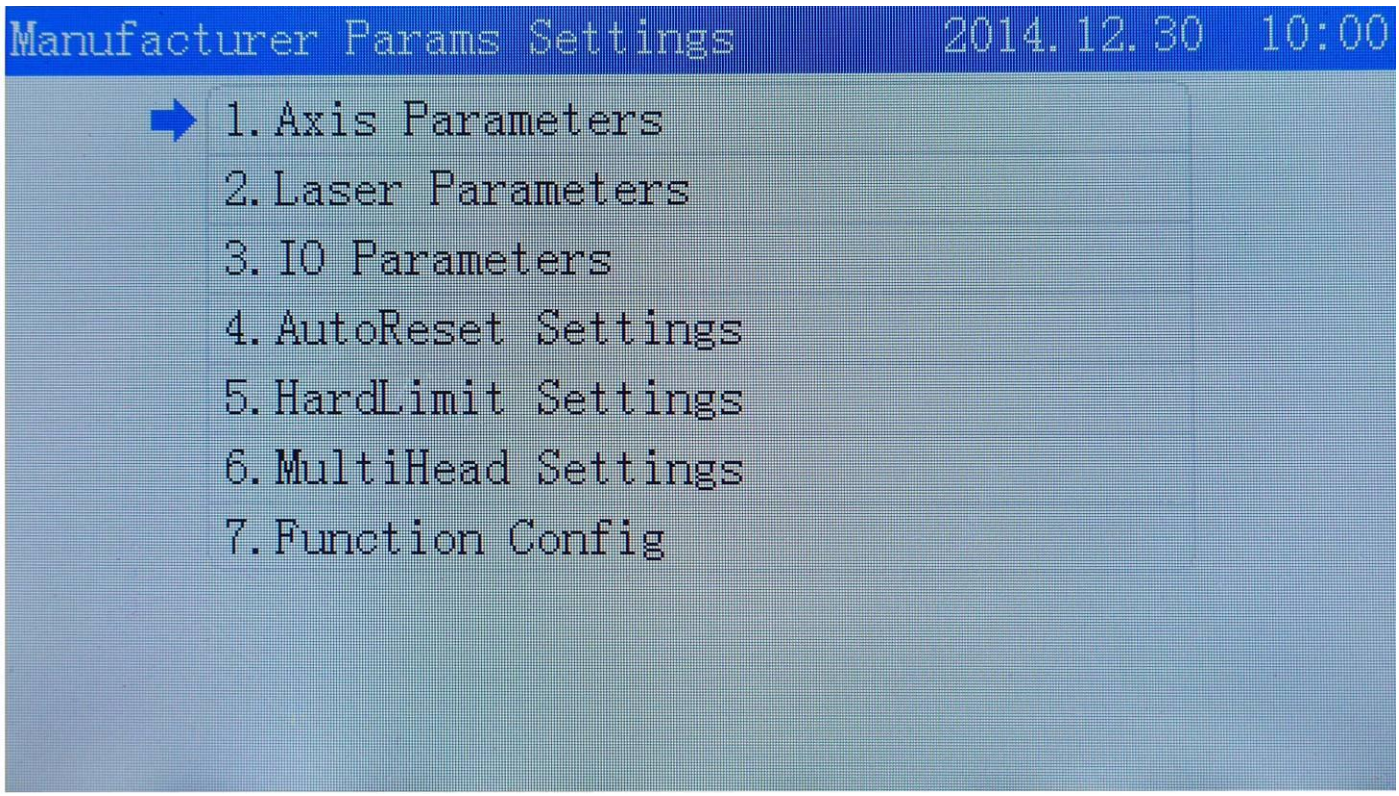
5.10 System Version

In main menu interface press【Menu】. Move cursor to【Language】and press【 Enter】to check the controller system version information.



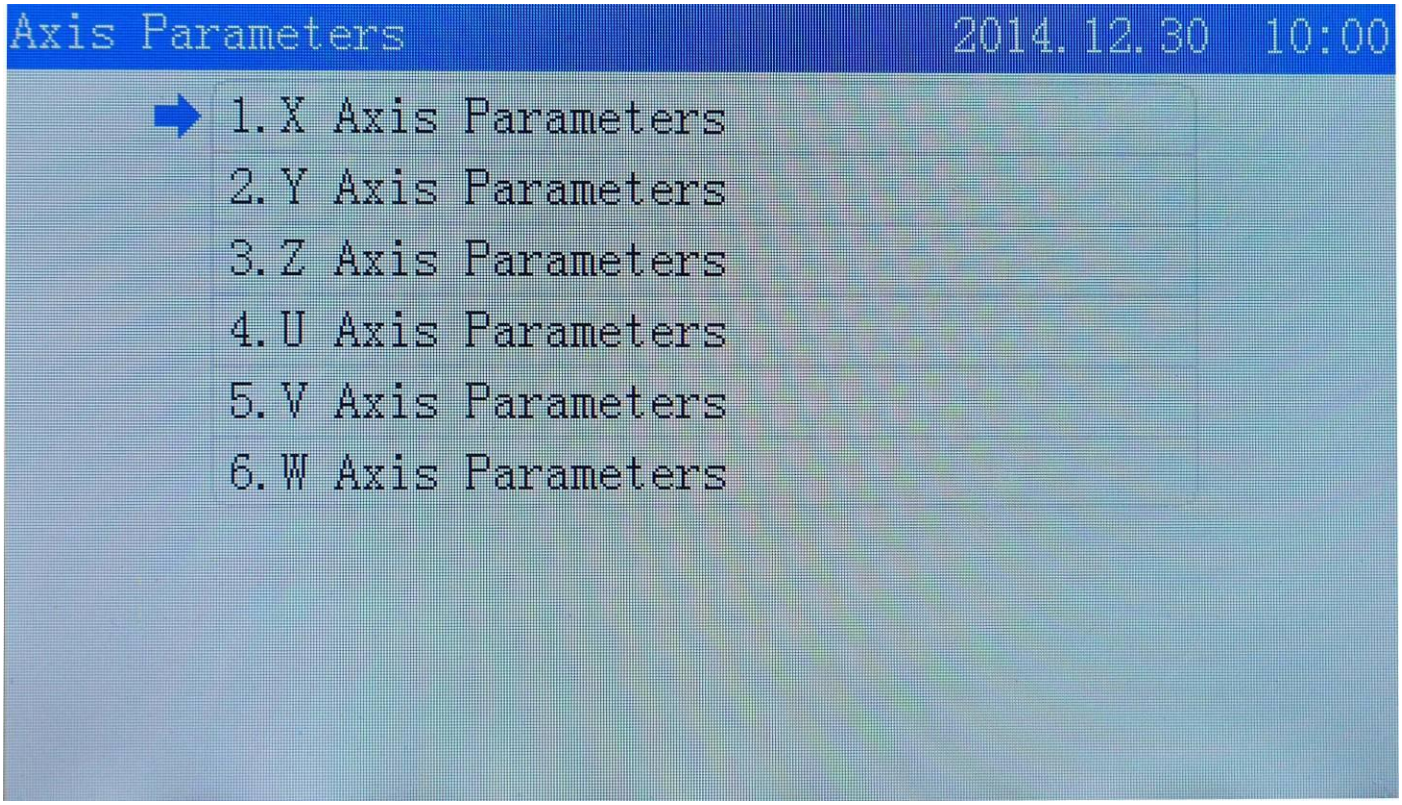
6.Manufacturer Parameters Settings

Press 【Stop】button and not loose it. Then input numbers【7】【0】【8】to enter Manufacturer Parameters Settings interface.

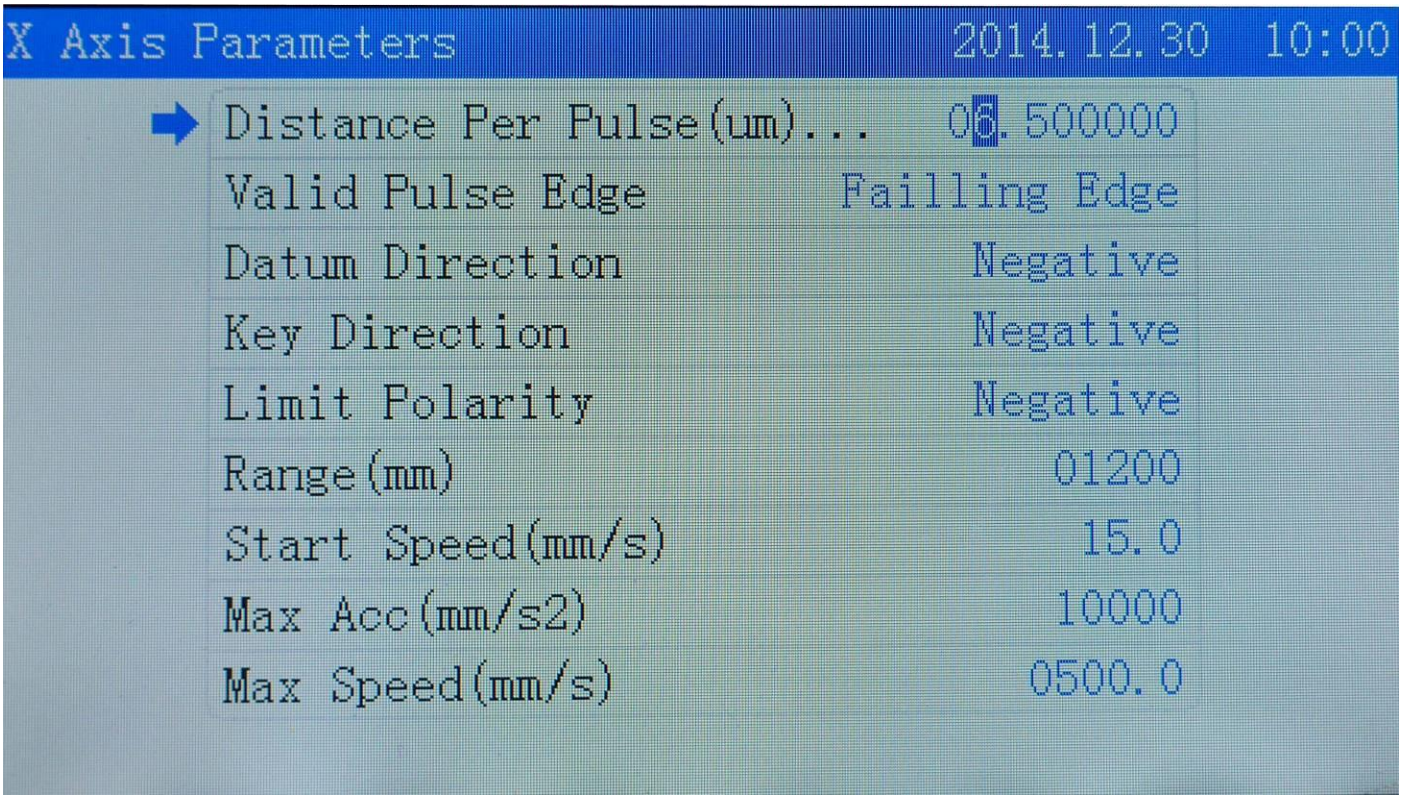


6.1 Axis Parameters

Move cursor to 【Axis Parameters】and press【 Enter】



In Axis Parameters setting interface , move cursor to X axis parameters option. Press【Enter】to enter it. Move cursors to options you want to change. Press【←】【→】then【Enter】to finish the changes.



【Distance Per Pulse(um)】 The distance of a position control movement as a controller output one position control pulse.

【Valid Pulse Edge】 The virtual value of driver electronic level changes.

【Datum Direction】 The machine movement direction when resetting. A wrong operation on it will lead your machine move to reversed direction.

【Key Direction】 The direction of axis when pressing buttons in panel. A wrong operation on it will lead axis move to reversed direction.

【Limit Polarity】 The control electronic level that limit switch send to controller main board. A wrong operation on it will lead limit switch stop working.

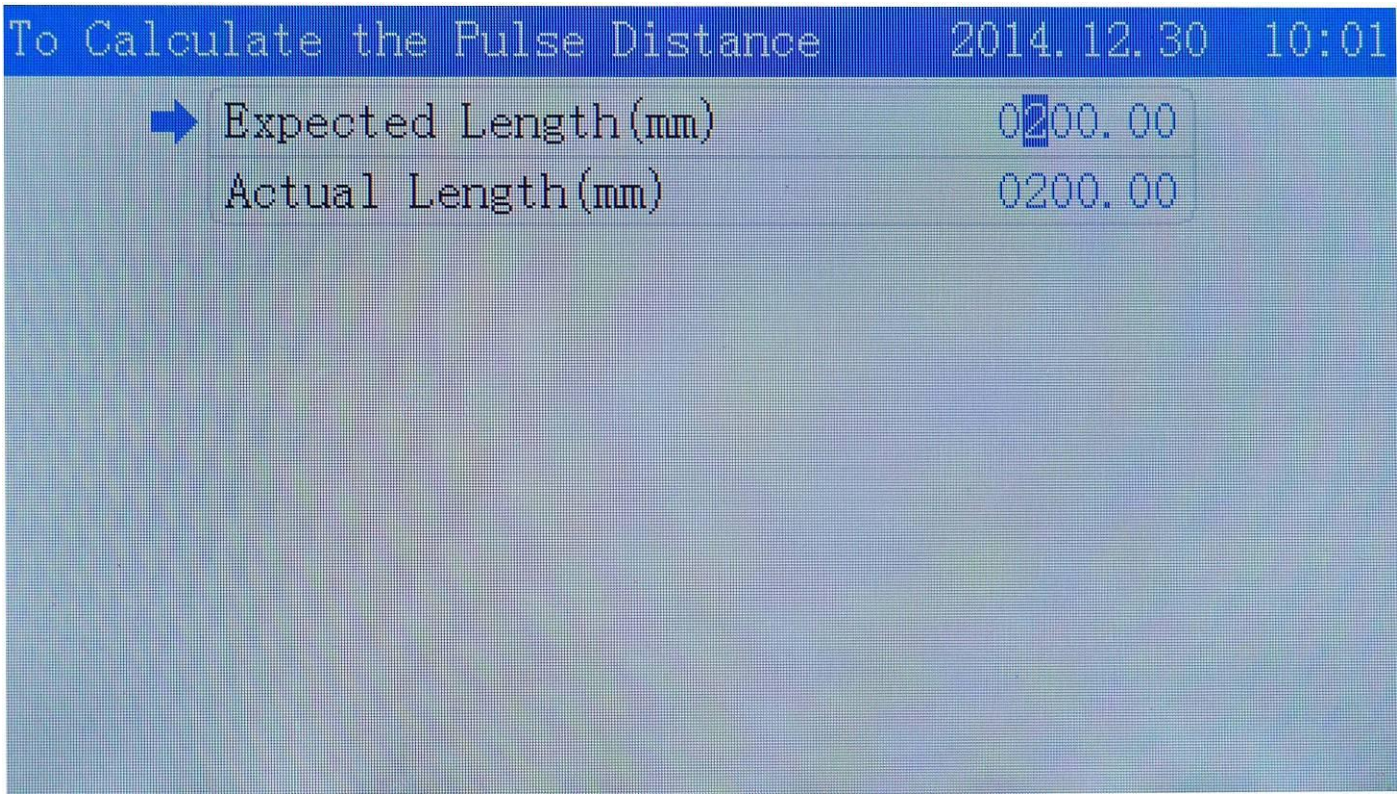
【Range(mm)】The working area of the machine.

【Start Speed(mm/s)】 Speed of axes from stillness to startup.

【Max Acc(mm/s2)】 Max acceleration when axes doing speed up and down motion.

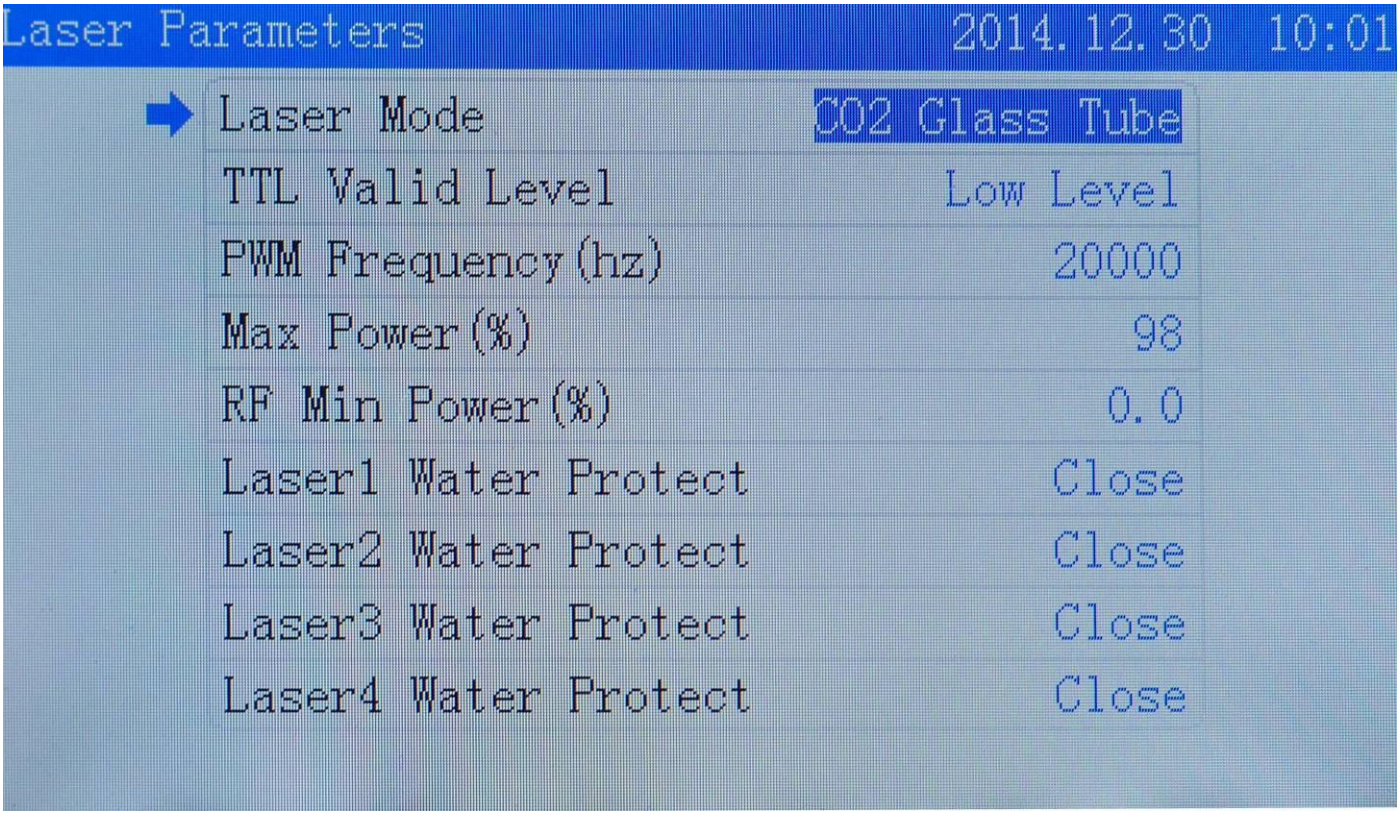
【Max Speed(mm/s)】Max speed limitation that axis can run with.

move cursor to 【To Calculate the Pulse Distance】. Press【Enter】to enter it. Input expected numbers and try to measure the actual length of each axis then Distance Per Pulse could be automatically calculated.



6.2 Laser Parameters

In Manufacturer Parameters setting interface , move cursor to Laser Parameters option. Press【Enter】to enter it. Move cursor to do changes you need. Press 【←】【→】then press 【Enter】to finish it.



【Laser Mode】 laser tubes mode.

【TTL Valid Level】 means control level of laser tube. A wrong operation will lead output and stop output with reversed instruction.

【PWM Frequency(hz)】 To change the pulse frequency of control signal that laser source used.

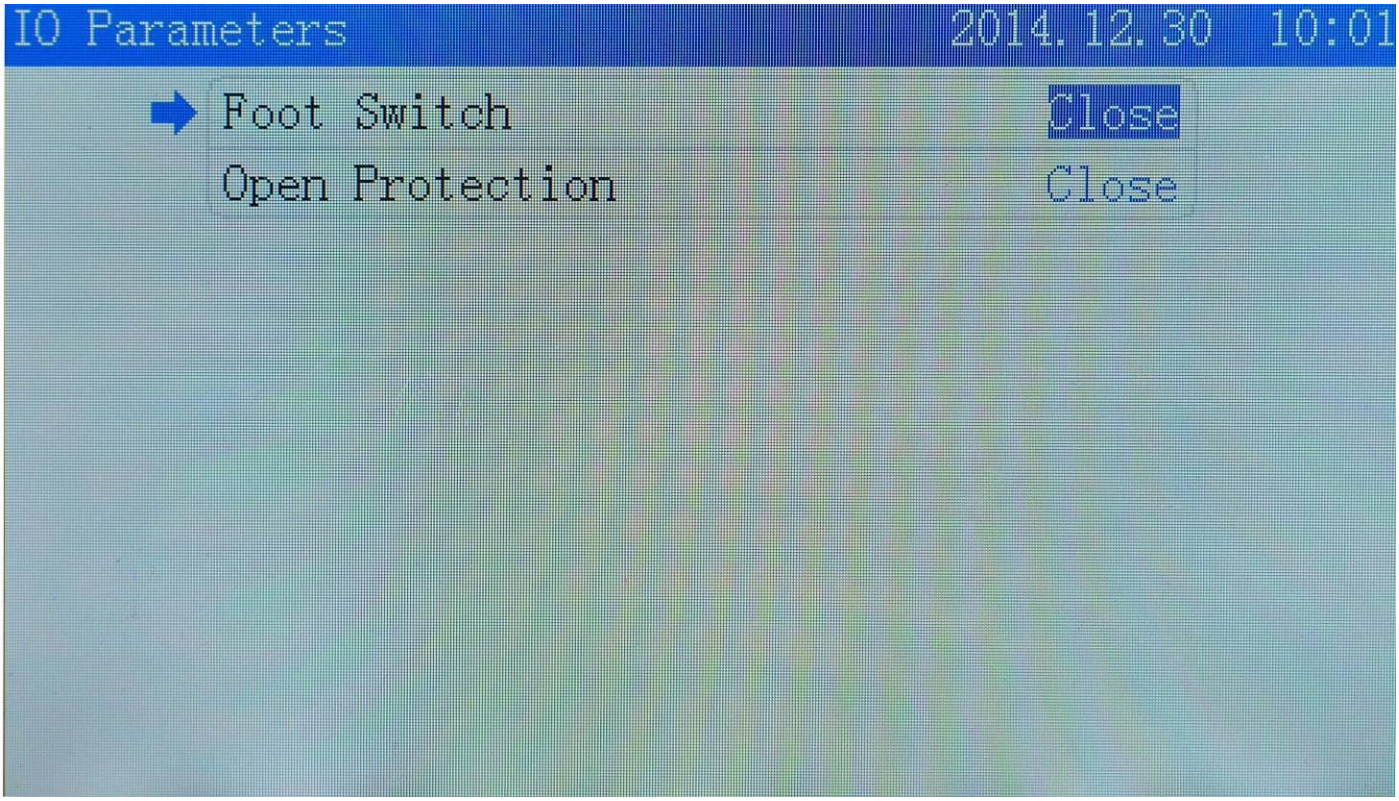
【Max Power(%)】 Max power of laser tube or max limitation of laser source. The highest power operator adjusted cannot be beyond this. It is always presented wit a percent way.

【RF Min Power(%)】Mini power of laser tube. The lowest power operator adjusted cannot be smaller than this.

【Laser Water Protect】Switch of laser water protection. If you want to start it, keep this open.

6.3 IO Parameters

In Manufacturer Parameters setting interface , move cursor to IO Parameters option. Press【Enter】 to enter it. Move cursor to do changes you need. Press 【←】【→】then press 【Enter】to finish it.

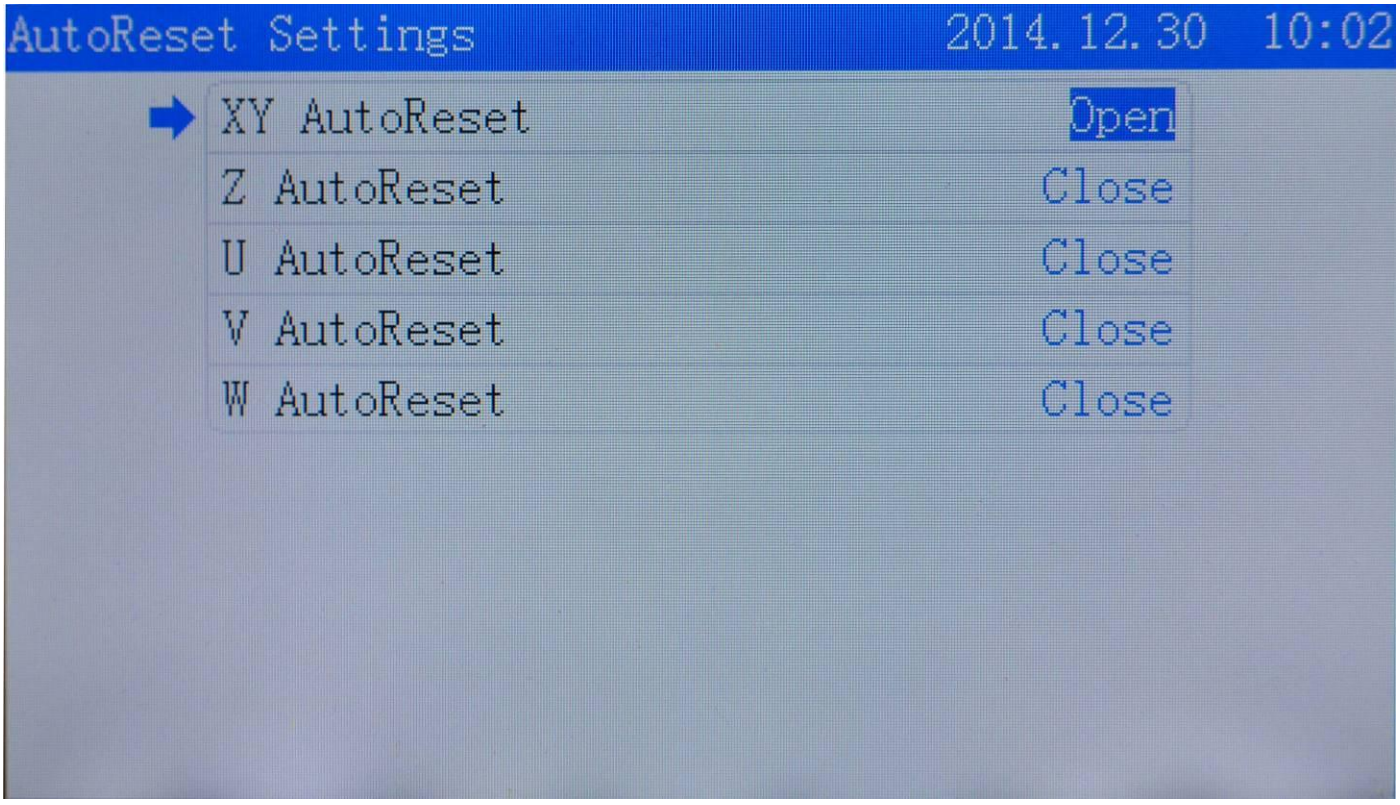


【Foot Switch】 Switch of foot. If you want to use it, keep it open.

【Open Protection】 Switch of open protection. If you want to use it, keep it open.

6.4 AutoReset Settings

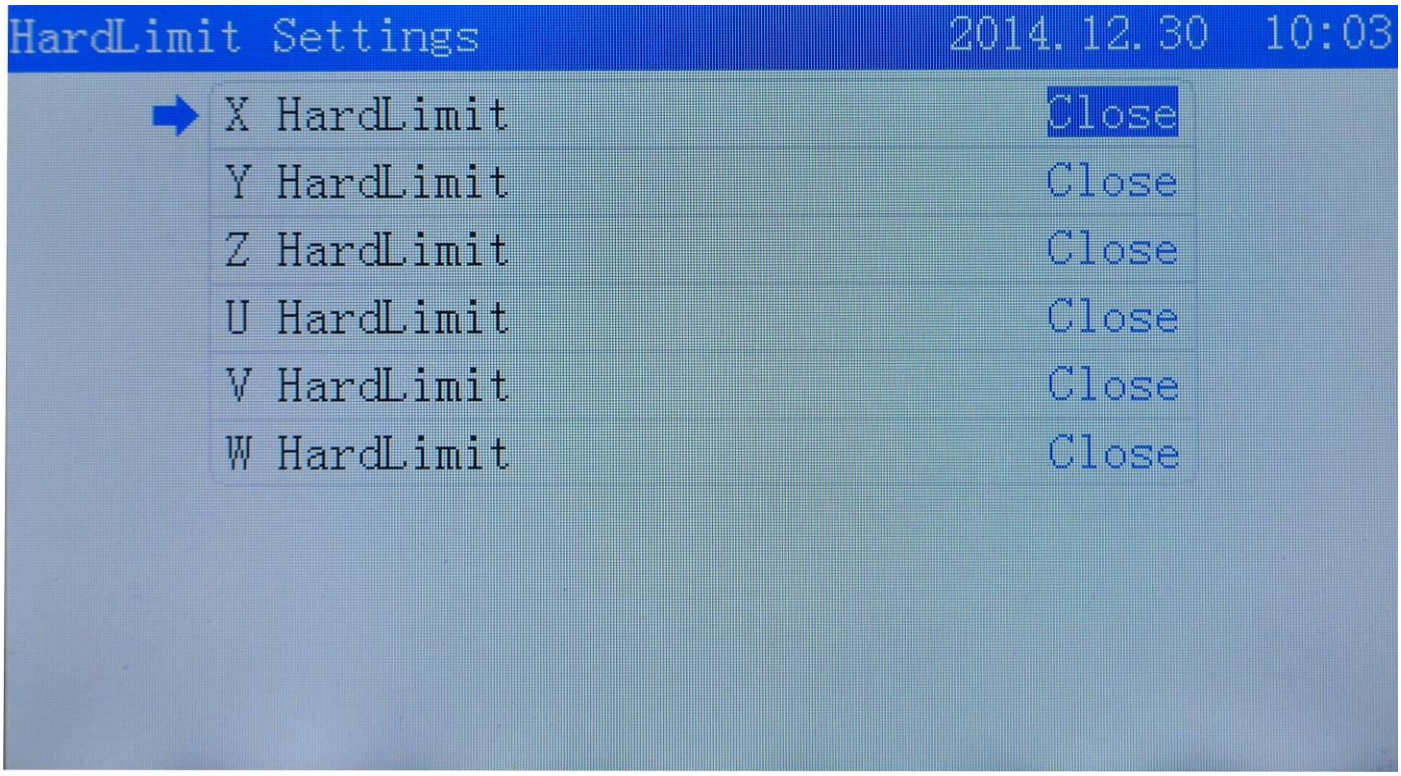
In Manufacturer Parameters setting interface , move cursor to AutoReset Settings option. Press【Enter】 to enter it. Move cursor to do changes you need. Press 【←】【→】then press 【Enter】to finish it.



【XY/Z/U/V/W AutoReset】 If you want to use it,please keep relative axis option open.

6.5 HardLimit Settings

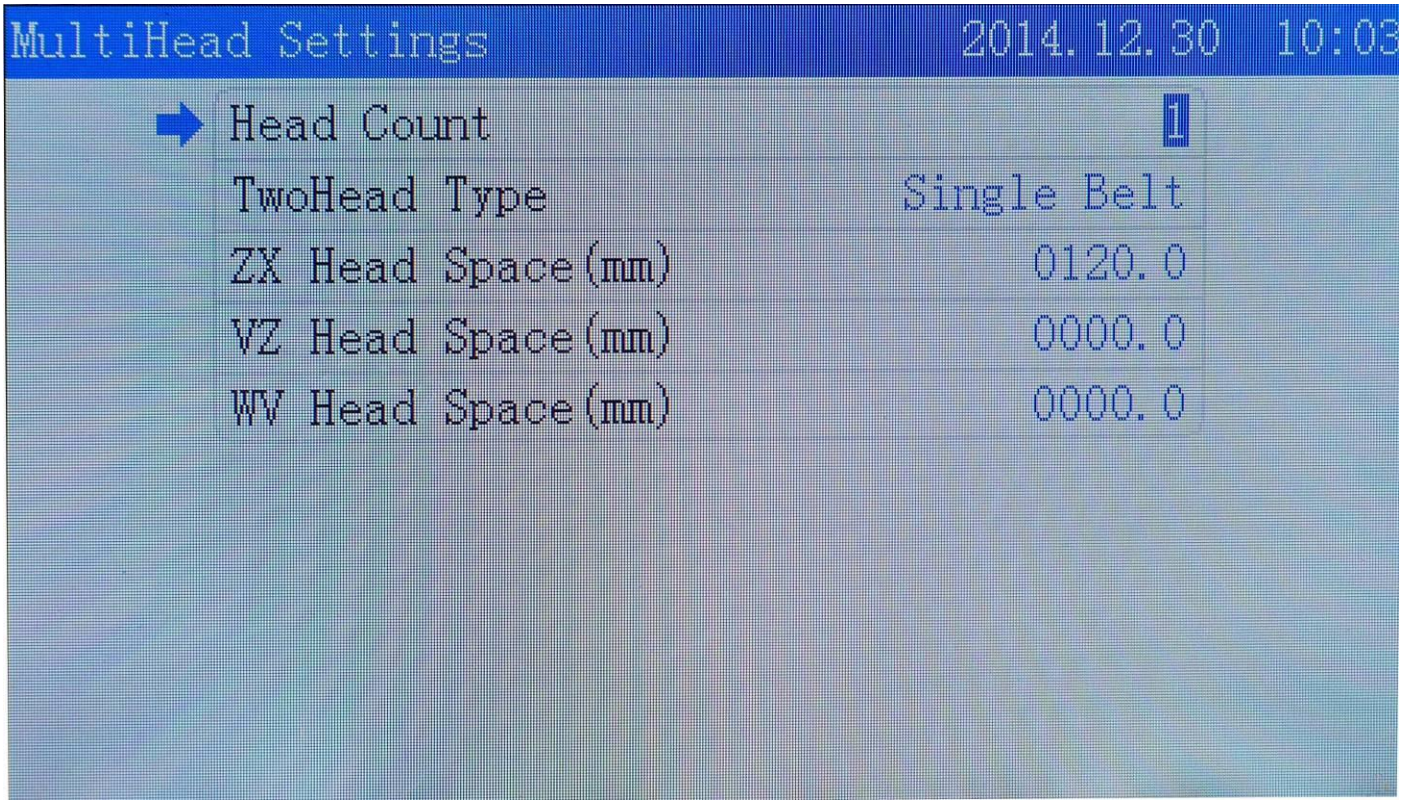
In Manufacturer Parameters setting interface ,move cursor to HardLimit Settings option.Press【Enter】to enter it.Move cursor to do changes you need.Press 【←】【→】then press 【Enter】to finish it.



【X/Y/Z/U/V/W HardLimit】 Hardware limit switch,if need please keep it open.

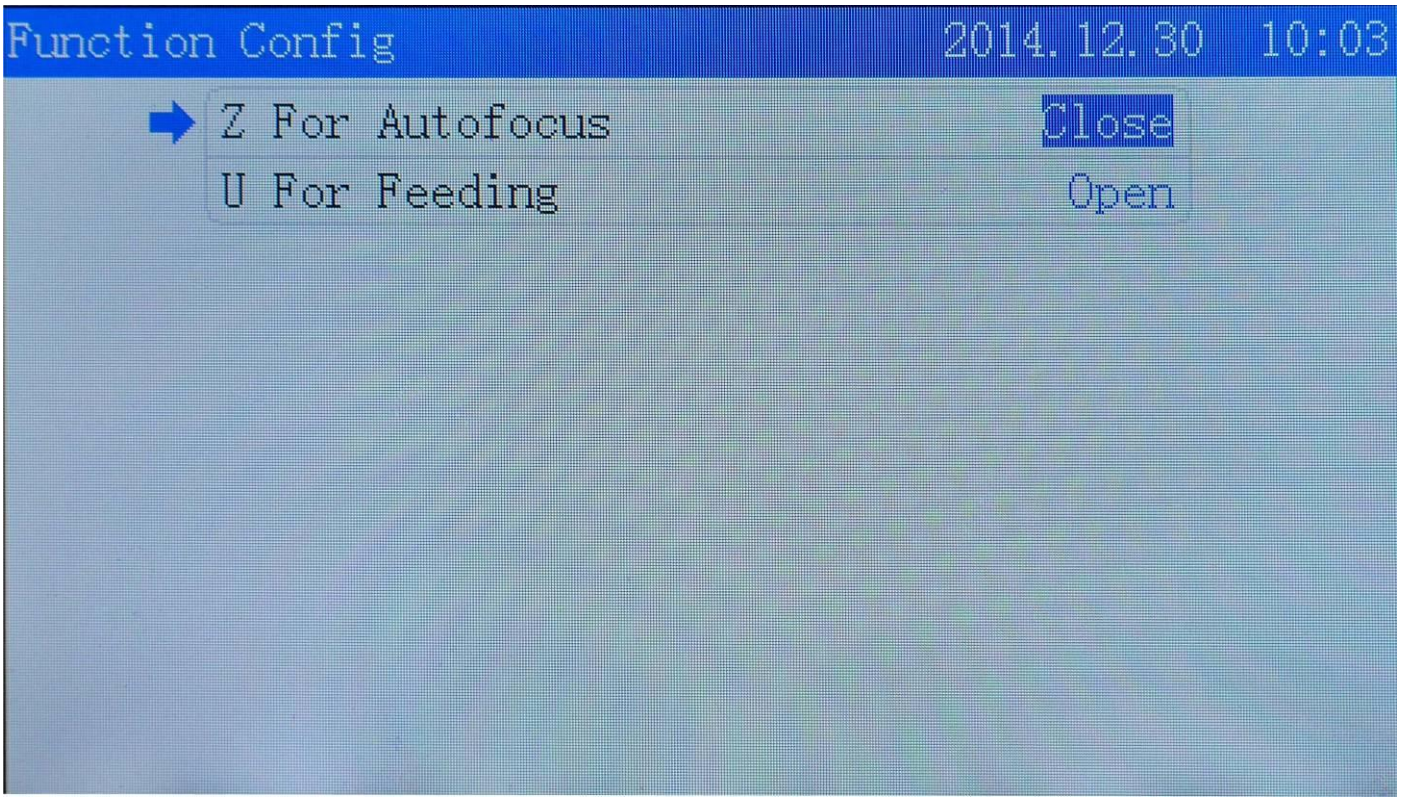
6.6 MultiHead Settings

In Manufacturer Parameters setting interface ,move cursor to MultiHead Settings.Press【Enter】to enter it.Move cursor to do changes you need.And Input numbers to change parameters.Press 【←】【→】then press 【Enter】to finish it.



6.7 Function Config

In Manufacturer Parameters setting interface , move cursor to Function Config. Press【 Enter】to enter it. Move cursor to do changes you need. Press 【←】【→】then press 【Enter】to finish it.



【Z For Autofocus】 Switch of Z axis auto focus option. If need keep it open.

If need U axis for auto feeding , keep it open.

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