Fusion Splicer Manual

1.Getting Started

1.1. Charging Battery

Introduction: The fusion splicer uses rechargeable lithium batteries. Using for extended periods of time in low battery status will damage the battery. Please recharge the battery from time to time. And the battery must be recharged once a month when not in use.

The requirements of battery charging temperature are：0℃ ~ 40℃

Steps:

1. Visual Inspection: Check the battery appearance - is it intact, with no damage? Check for bulging and leakage of liquid.

2. Check Power: Press the power indicator button to check the current power.

3. Insert Battery : Insert the battery into the fusion splicer.

4. Connect Adapter: Plug the adapter into the DC port of the fusion splicer. Check the display panel of battery. The battery indicator flickering indicates the battery is recharging (Note: If the battery has not been used for a long time, the battery will discharge. If the battery indicator is not flickering ,It will return to normal with 1 hour of charging)

5.Charging Completed: When the battery is fully charged, the battery indicator will stop flickering and all led of the battery indicator will light up, After 5 seconds turn it off.

6.Charging Confirmed: Press the battery indicator button, all led of the power indicator will light up.

7. Done

1.Getting Started

1.2. Start Splicing

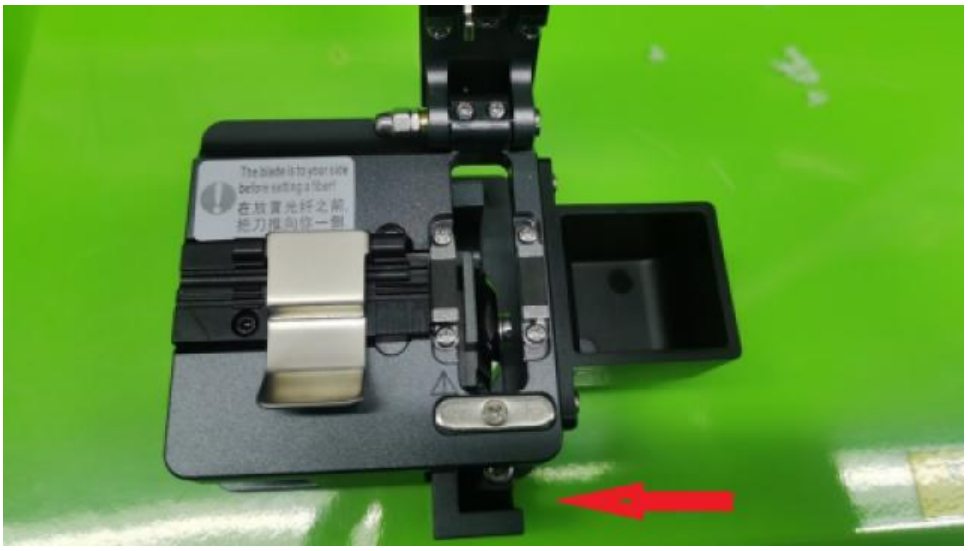
Introduction： The four basic steps of splicing are putting the fiber into the fiber sleeve, cutting the fiber, fiber splicing and heating fiber sleeve.

Steps：

1. Insert fiber: Insert the fiber put into the fiber sleeve.

2. Cut fiber：

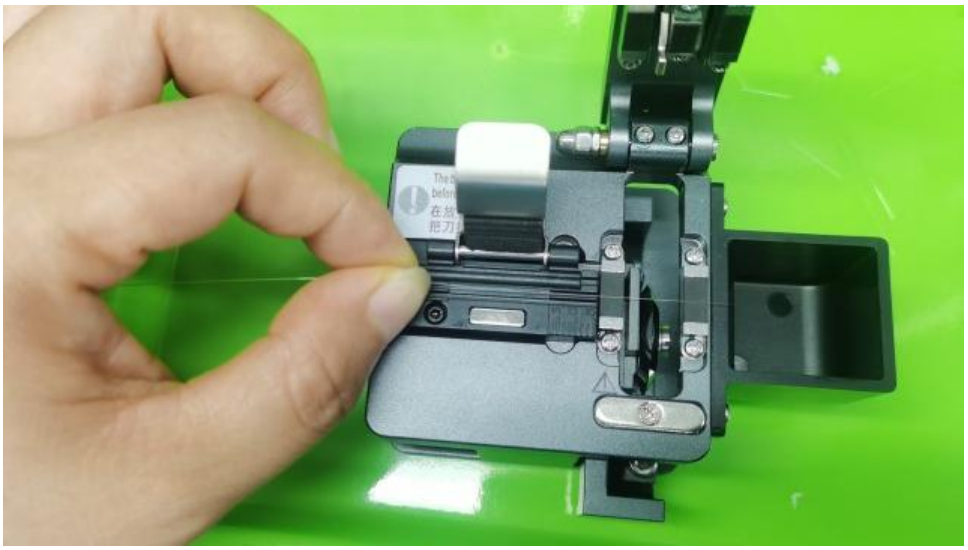
2.1. Open the cleaver and move the blade holder to the front.



2.2. Clamp the end of the fiber at a position of 30mm with a fiber stripper, and strip the fiber coating outwards.

2.3. Clean the fiber with alcohol cotton.

2.4. Put the fiber into the cleaver and align the starting point of stripped fiber with the 15 mm scale line.



2.5. Close the cleaver and push the blade holder forward to the end.

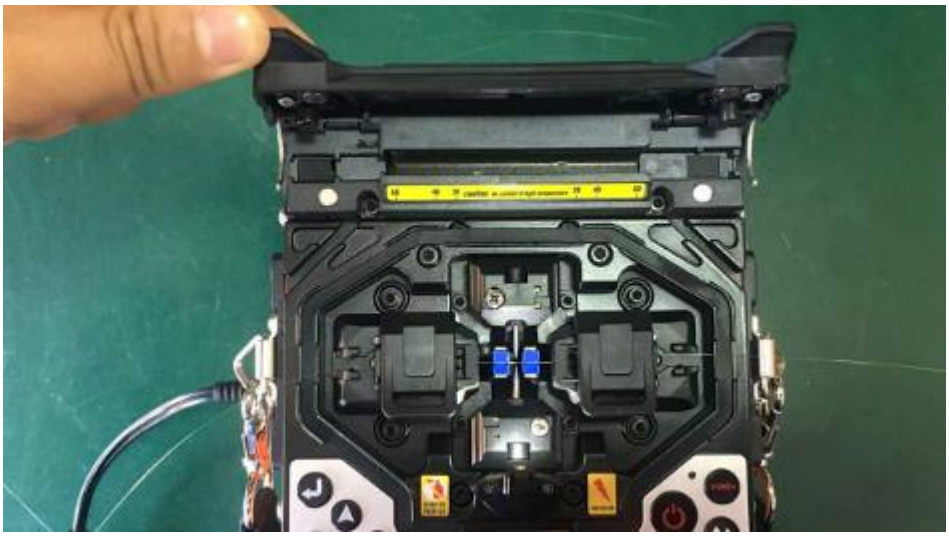
2.6. Open the cleaver and put the fiber into the left fiber holder of the splicer. The end of fiber should be 1 mm to 1.5 mm from electrodes.

2.7. Repeat steps 2.2 to 2.6. After cleaving the second fiber, put the fiber into the right fiber holder of the splicer. The end of fiber should also be 1 mm to 1.5 mm from the electrodes.

3. Fiber splicing: Close the windproof cover. The fusion splicer will automatically splice.

4. Heat fiber sleeve:

4.1. Open the heater's lid.

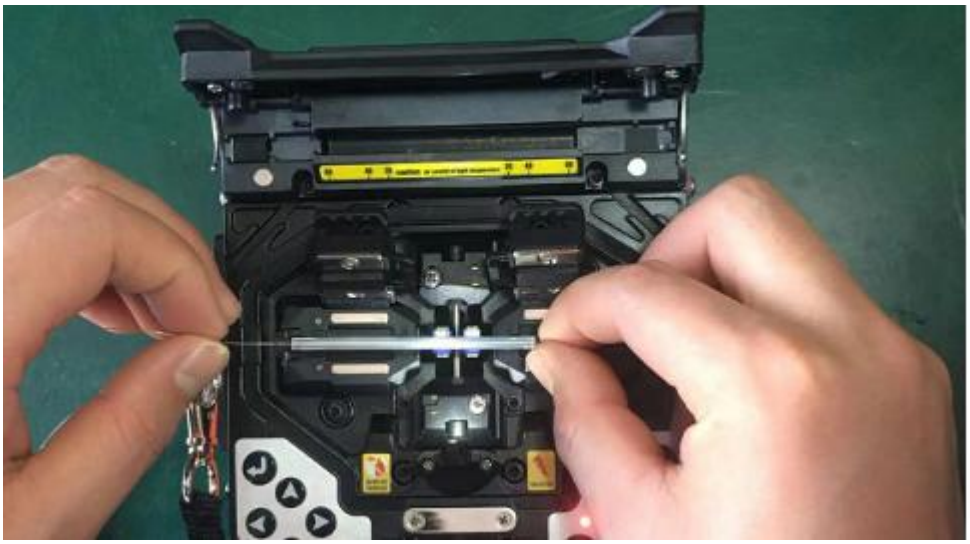


4.2. Open the windproof cover, then take hold of the left fiber meanwhile open the left fiber holder.

4.3. Move the fiber sleeve to the left fiber holder.

4.4. Pull out the right fiber with your right hand and open the right fiber holder to straighten the fiber.

4.5. the right thumb is placed 20 mm from the fusion point. Tilt the fiber to the right to slide down the fiber sleeve towards to the thumb.



4.6. Straighten the fiber, put the fiber sleeve into the middle of the heater, shut the lid of the heater and the fiber is heated automatically.

4.7. When the heating indicator light goes off (with a beep) , the heating is done.

5. Done

Warnings and Precautions

1. Warnings

Do not remove or modify fusion splicer, AC adapter or battery without authorization, especially do not remove or bridge any electronic or mechanical part inside the device (fuse or safety switch) . Any wrong maintenance may result in damage to fusion splicer, or even electric shock, fire, personal injury or death.

1.1. **Electrical safety warning**

Use genuine battery of fusion splicer only. The use of non-genuine batteries may pose safety risks, including circuit burn and battery spontaneous combustion, it may even cause fire, personal injury, or death. (Note: If there is any battery leakage, bulge or other unusual phenomena, the battery should be immediately be put into fire/explosion-proof box.)

Battery must avoid high temperatures, fire and direct sunlight. High temperature, fire, and direct sunlight may cause battery spontaneous combustion, which may even cause fire, personal injury, or death.

Do not use the battery after it is soaked in water. Soaking a battery may cause battery spontaneous combustion, which may even cause fire, personal injury, or death.

Use genuine adapter of splicer only. The use of non-genuine adapters has safety risks, including but not limited to electric shock, circuit burning, battery spontaneous combustion, and can even cause fire, personal injury, or death.

The adapter must use a stable AC power with voltage range in 100~240V and frequency range in 50~60Hz. Improper power supply may cause safety risks, including but not limited to adapter burn, electric shock, circuit burn, battery spontaneous combustion, and ,ay even cause fire, personal injury, or death. (Note: Voltage and frequency should be tested before using the alternator to ensure that the output voltage and frequency meet the requirements to avoid power safety risks.)

1.2. Environment safety warnings

Do not use fusion splicer near inflammable or explosive articles. Fusion splicer discharge will ignite flammable and explosive objects, resulting in fire or explosion.

Do not use fusion splicer in high dust environment. A discharge from fusion splicer will detonate combustible dust.

1.3. Operation safety Warning

Do not touch fusion splicer, AC power cord, or AC power plug when your hands are wet. There may be a danger of electric shock.

Do not operate fusion splicer when water vapor condenses on its surface. Electrical shock or machine damage may occur.

Do not touch the electrode when fusion splicer is working. The high voltage and high temperature generated when the electrodes discharge can cause serious electric shocks and burns. (Note: Before replacing the electrode, be sure to turn off the splicer power supply, remove the battery, and unplug the AC power cable.)

Do not short-circuit the positive and negative terminals of the power socket of fusion splicer. This can result in circuitry burning and even personal injury or death.

Do not short-circuit the positive and negative terminals of the adapter plug. The adapter may burn, or even cause personal injury or death.

Do not use compressed or canned gas cleaner to clean fusion splicer. The arc generated during splicing may ignite the residual fuel, resulting in personal injury or death.

2. Precautions

Cut off the power supply and take out the battery immediately in case of any of the following abnormalities:

· Smoke, peculiar smell, abnormal sound or abnormal heating.

· Liquid or foreign matter entering the machine.

· Fusion splicer is damaged or broken.

Failure to take timely measures may result in machine obsolescence, electric shock, fire, or even personal injury or death **Avoid using fusion splicer in high temperature environment.** This might lead to shortened life, equipment damage, and splicing quality deterioration. Extreme temperatures can cause electrical circuits to burn, batteries to spontaneously combust, and even cause fire, personal injury, or death.

Avoid using fusion splicer in high humidity environment. May lead to shortened life, equipment damage, and splicing quality deterioration.

Do not use any chemical substance other than alcohol to clean the device. Device corrosion and damage may occur.

Do not use non-genuine lubricants. They will reduce the performance of fusion splicer and may damage the fusion splicer.

Avoid strong vibration or collision. Fusion splicer has been accurately adjusted and calibrated, strong vibration or collision may cause damage to the device, please use the provided carrying box to transport and store the fusion splicer, the box can effectively avoid strong vibration or collision.

Avoid placing the fusion splicer on unstable or unbalanced places. The fusion splicer may fall off, causing equipment damage and personal injury.

Do not touch the heat shrink tube during or just after heating. High temperature on the surface of the heat shrink tube may cause burns.

Check the straps and hooks are in good condition before using the straps. Damaged shoulder straps may break or unhook, resulting in device damage or personal injury.

Genuine electrodes must be used and replaced regularly in pairs. Non-genuine electrodes will lead to splicing quality deterioration, device circuit damage.

Fusion splicer must be maintained by professional technicians, improper maintenance may lead to circuit burning, battery spontaneous combustion, and even cause fire, personal injury or death. If fusion splicer is faulty, please contact the maintenance center.

3.Maintenance

3.1. Cleaning Device

Introduction： Timely cleaning of equipment can ensure optimal performance of the fusion splicer.

Step:

1. **Clean External Dust：** Use cleaning cloth to cleaning dust from the outside of the equipment

2. Clean the inside of the windproof cover: Use alcohol cotton to clean the inside of the windproof cover.

3. Clean Fiber Fixture: Use alcohol cotton to clean fiber fixture.

4. Clean Microscope: Clean the surface of the microscope with an alcohol swab (rotate clockwise to clean) .

5. Clean the V groove: Use a blade to clean the V-groove.

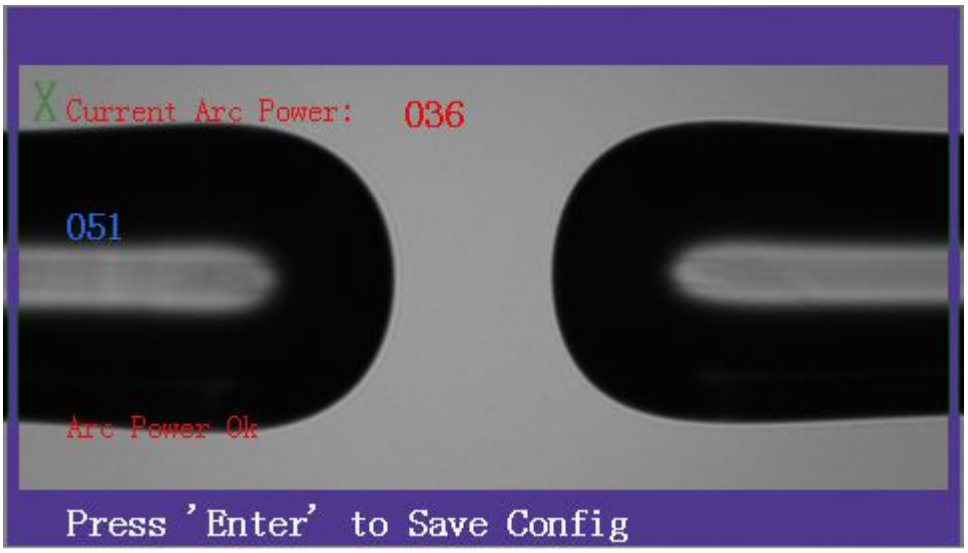
6. Clean The Heater: Use an alcohol swab to clean the inside of the heater.

7. Done

3.Maintenance

3.2. Arc-Power Test

Introduction： Doing arc testing once a month， can ensure that the fusion splicer will have the best performance.

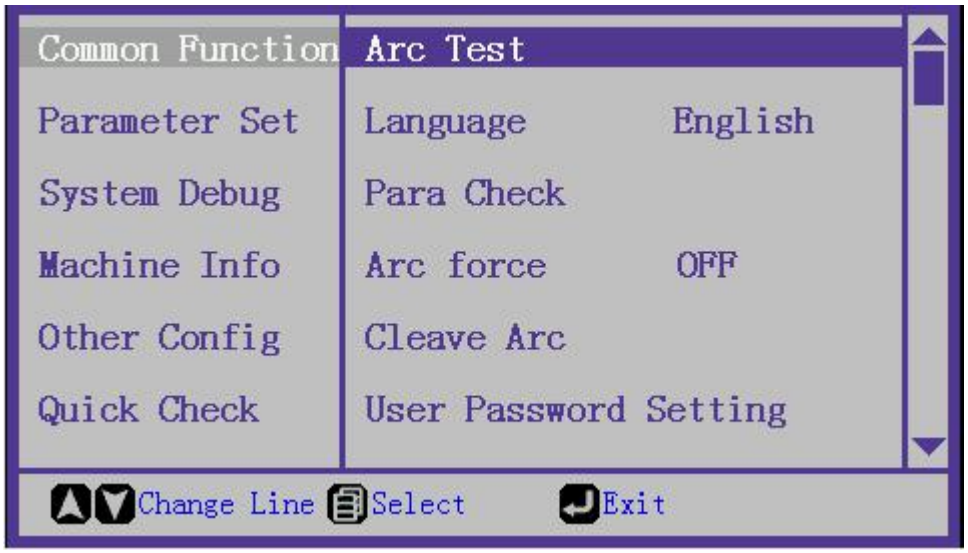


Step:

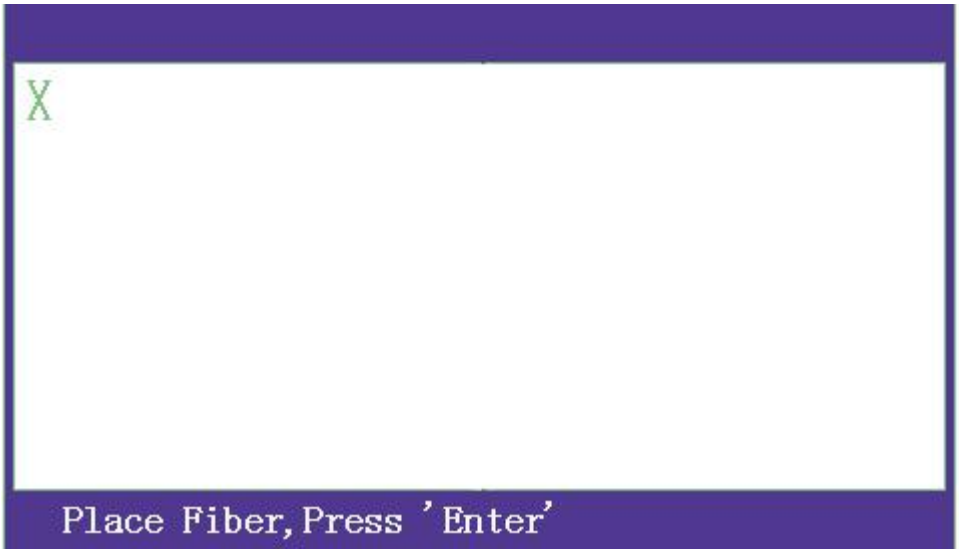
1. Go to the menu

1.1. Go to the “Common function”menu.

1.2. Select “Arc test ”, press the“ menu ”  to enter the page.



1.3. Press “Menu” again to enter the arc test menu. The screen will show “Place Fiber, Press Enter.”

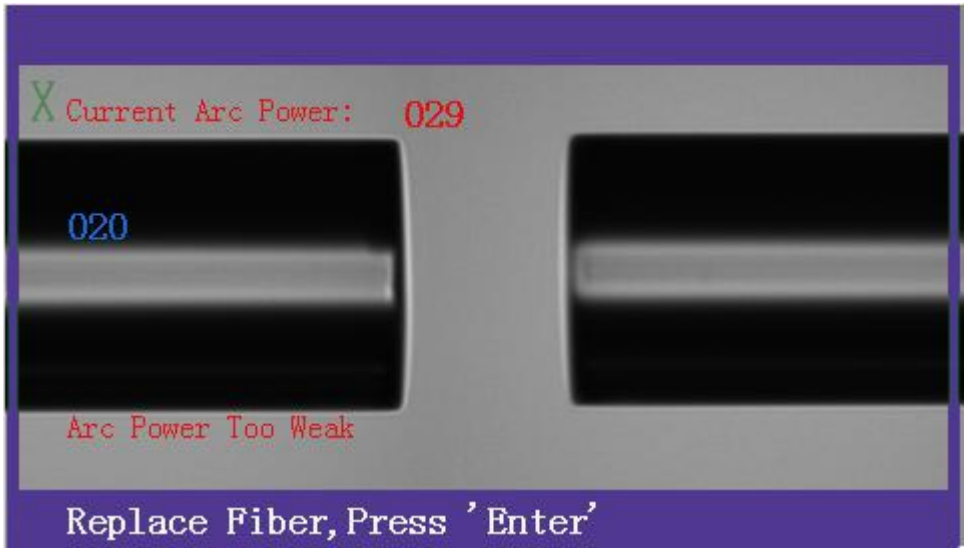


2.Arc Test

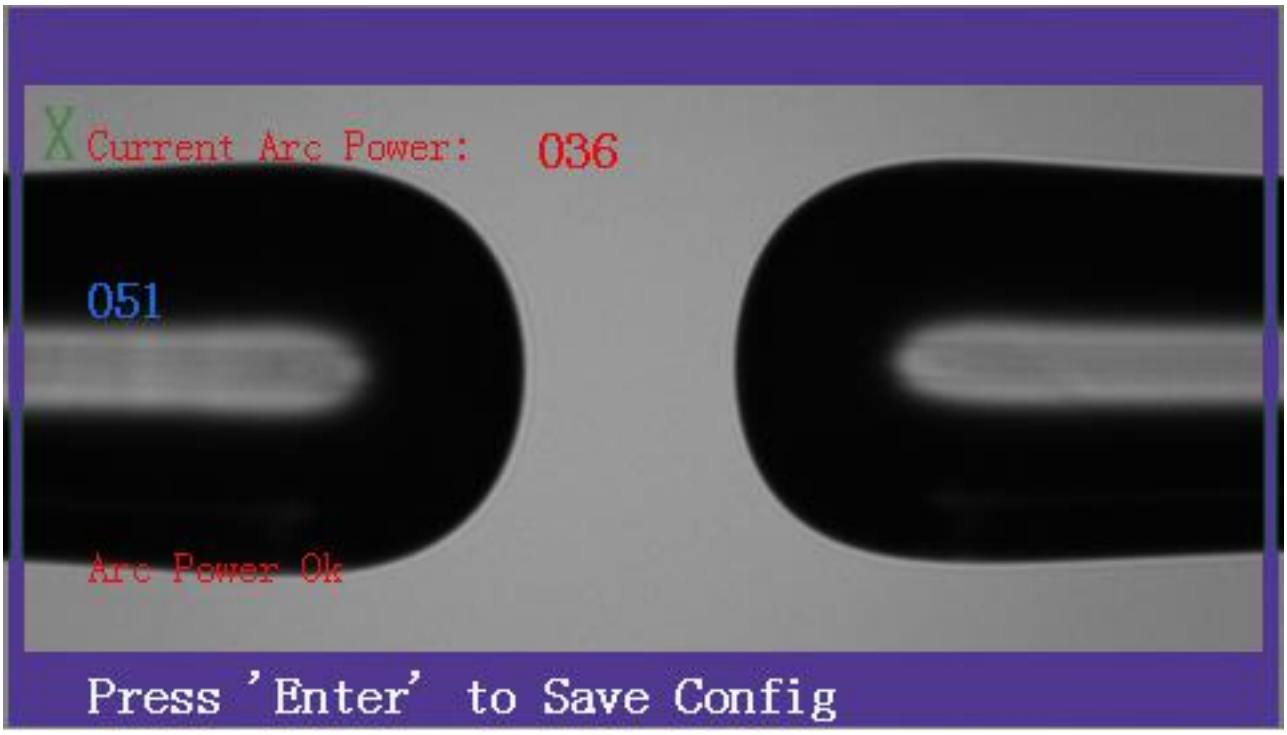
2.1. Cut the fibers then put two of fibers in the fusion splicer, close the windproof cover and press “Menu ” . The fusion splicer will be pushed-out, alignment and arc automatically adjusted.

2.2. After arc test, the left side of the screen will prompt with arc power and test results.

If prompted “Arc Power Too Weak/Too Strong”， open the windproof cover, repeat step 2.



2.3. If prompted“Arc Power OK”， press”menu ”to save.



3. Done

3.Maintenance

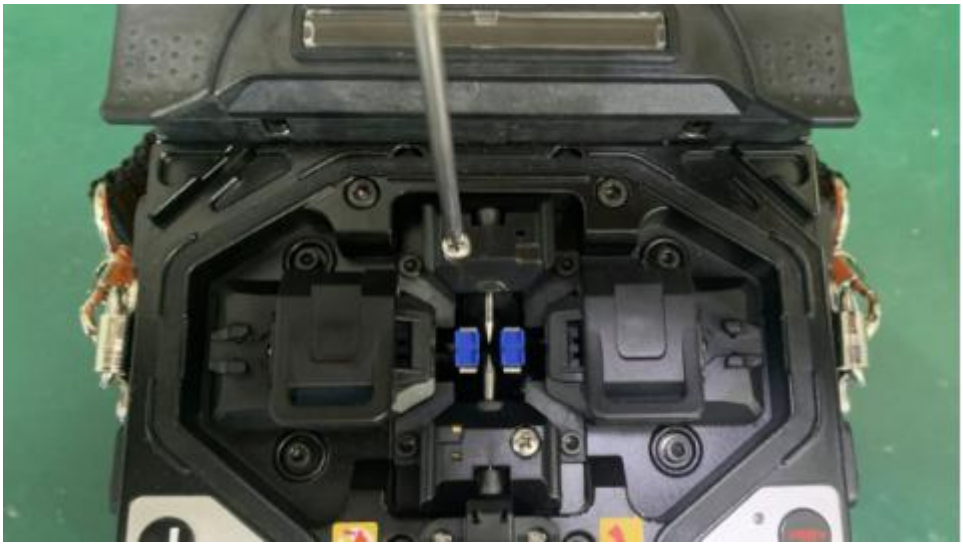
3.3. Replacing Electrodes

Introduction： Electrode gradually age as a result of use, and this affects the quality of the splicing, after using for 3000 times the electrodes should be replaced.

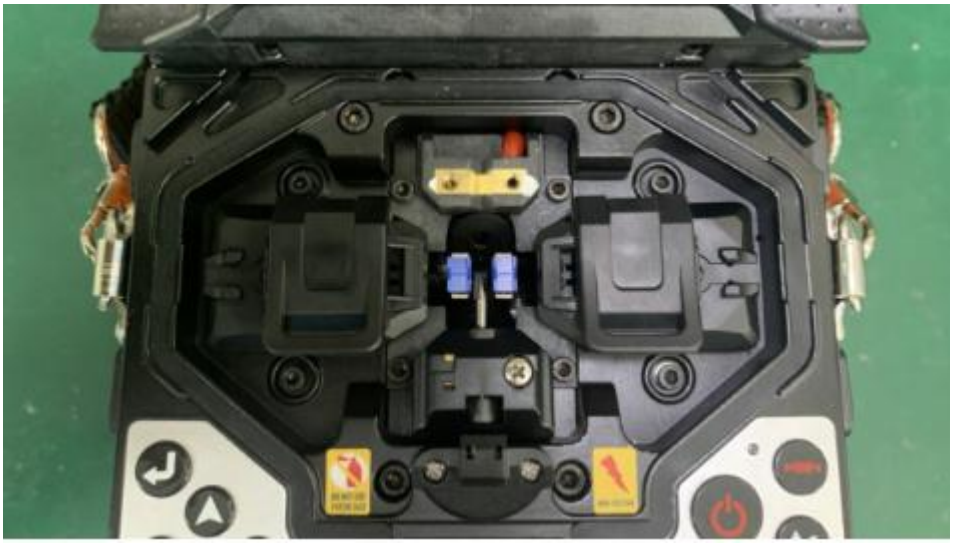
Step:

1. Remove electrode cap

1.1. Remove the screw from the electrode cap using a Phillips screwdriver.



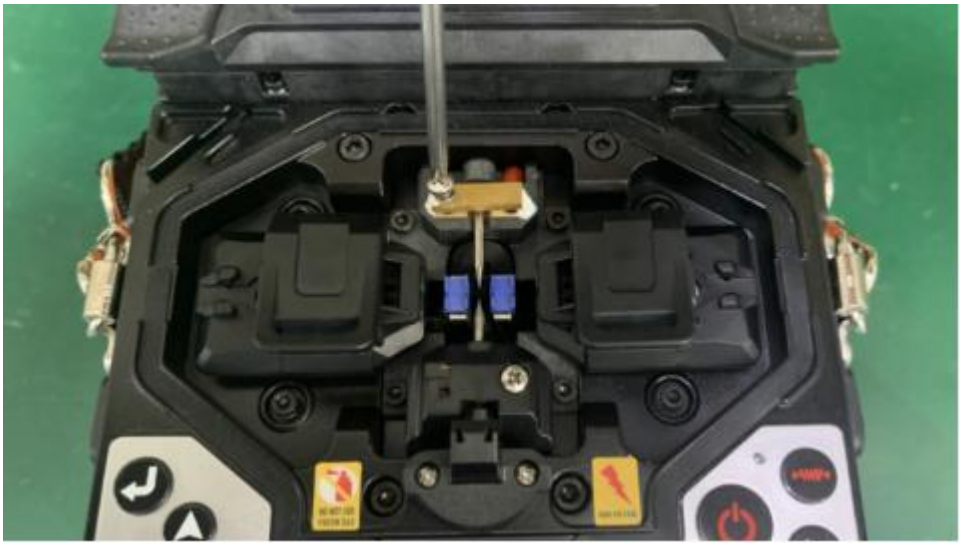
1.2. Remove the electrode cap by pulling upwards.



2. Replace the old electrode with a new one.

3. Re-install the electrode cap

3.1. Install electrode platen (wide face up) .



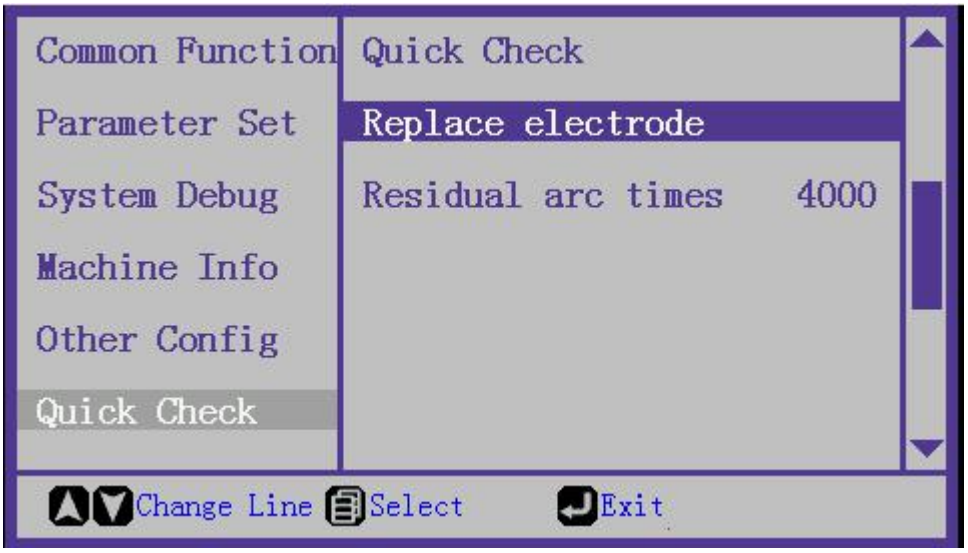
3.2. Push in electrode cap.

4. Repeat Steps 1 ~ 3 to replace the other electrode

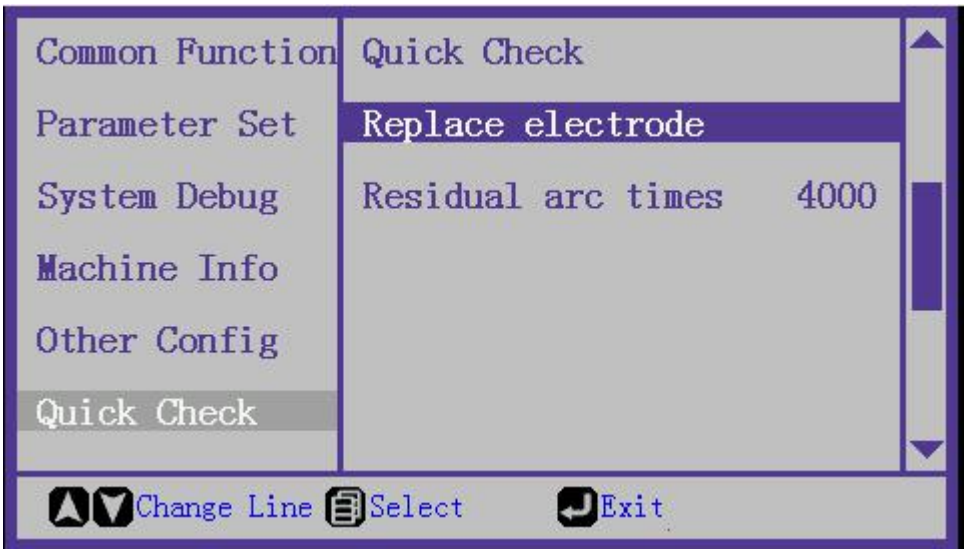
5. Reset count for Electrode Arc

5.1. Press the “Menu” then choose “Quick Check”

5.2.Press the“ menu ” again to select “Replace electrode ”



6. Finally press the "Menu " **and choose "Arc test"**



7. Done

3.Maintenance

3.4. Battery Maintenance

Introduction： Because the lithium battery will discharge naturally, if it is not used for a long time, the battery will be damaged. To ensure long-life, the battery needs charging for maintenance once a month.

Battery operating temperature requirements:-10 °C ~ 50 °C

Battery charging temperature requirements: 0 °C ~ 40 °C

Battery storage temperature requirements:-20 °C ~ 30 °C

Step:

1. Visual Inspection: Check the appearance of the battery is intact, no damage, bulging or leakage of liquid.

2. Check Power: Press the power indicator button to check the current power.

3. Insert battery: Insert the battery into the fusion splicer.

4. Connect the adapter: Insert the adapter into the power port of the fusion splicer, check the battery display panel, confirm that the battery display starts flashing - flashing means the machine is charging.

5. **Charging to 3 cells:** stop charging after the 3RD FLASH OF BATTERY POWER INDICATOR (battery for long-term storage or transportation should be kept in medium or low power state).

6. Done

4.Functions

4.1. Common Function

1. Arc Test

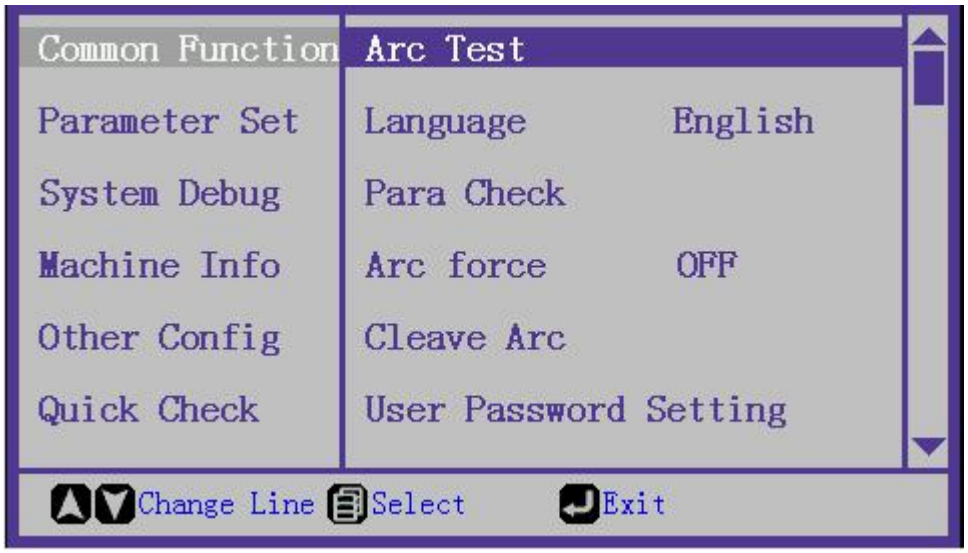
Function Introduction: Used for fusion strength calibration according to current splicing environment, splicing material and electrode state.

1.1. To ensure stable fusion quality, an arc test should be done regularly

1.2. Please do an arc test if the environment temperature, humidity or air pressure change dramatically

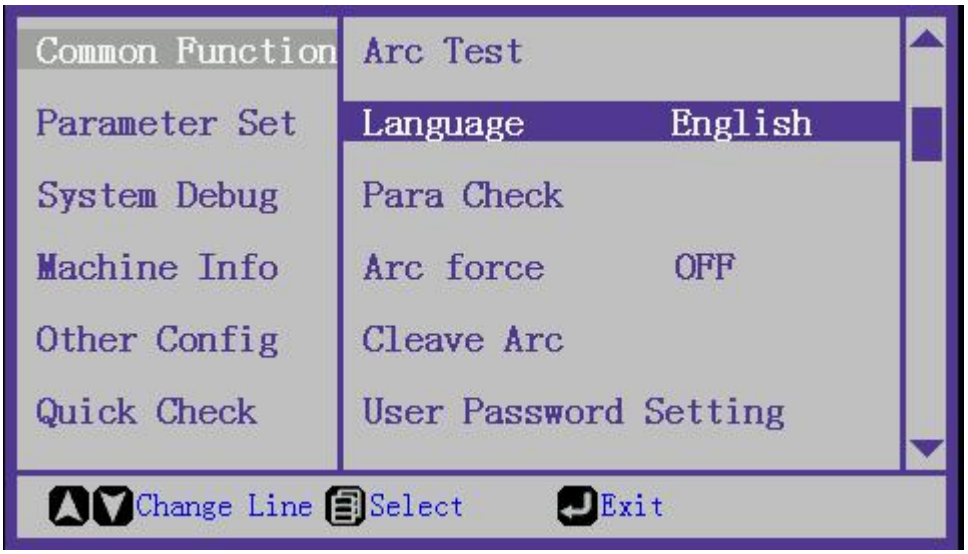
1.3. Please do an arc test after replacing the electrodes

Step: Arc test



2. Language Setting

Function Introduction: Used to display the fusion splicer menu language



3. Parameters Check

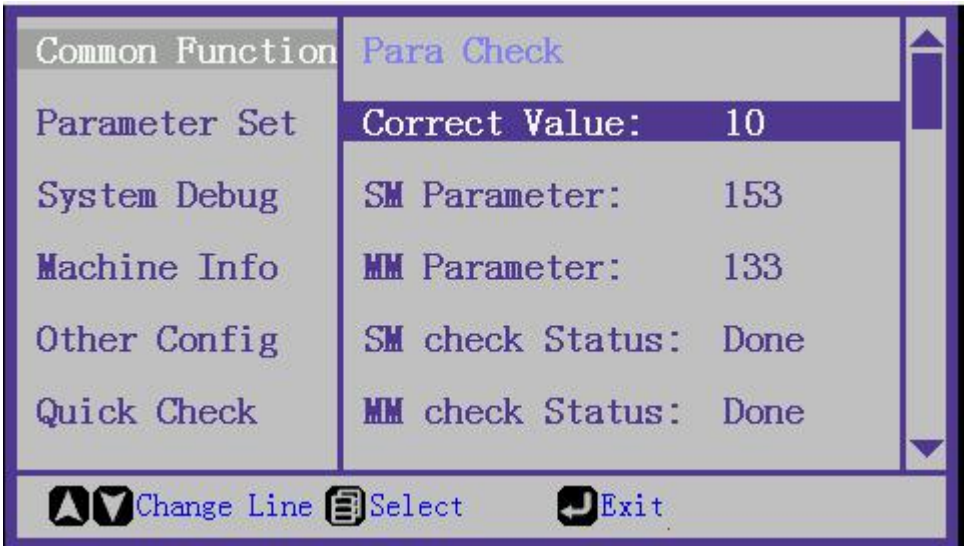
Function Introduction: Display fusion parameters self-check results, the normal values as follows:

· Correct Value：10

· SM Parameter：145~175

· MM Parameter：125~155

· Check Status：Done

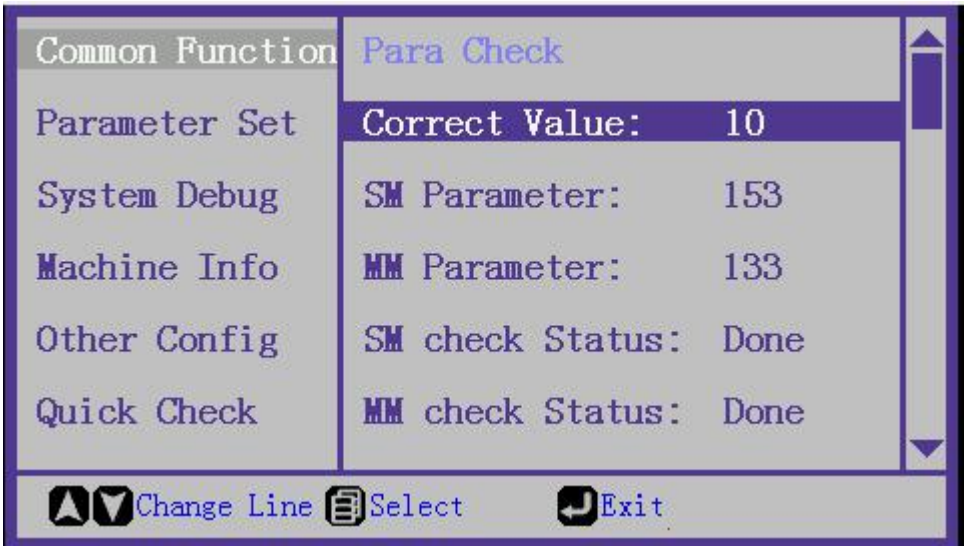


4. Arc force

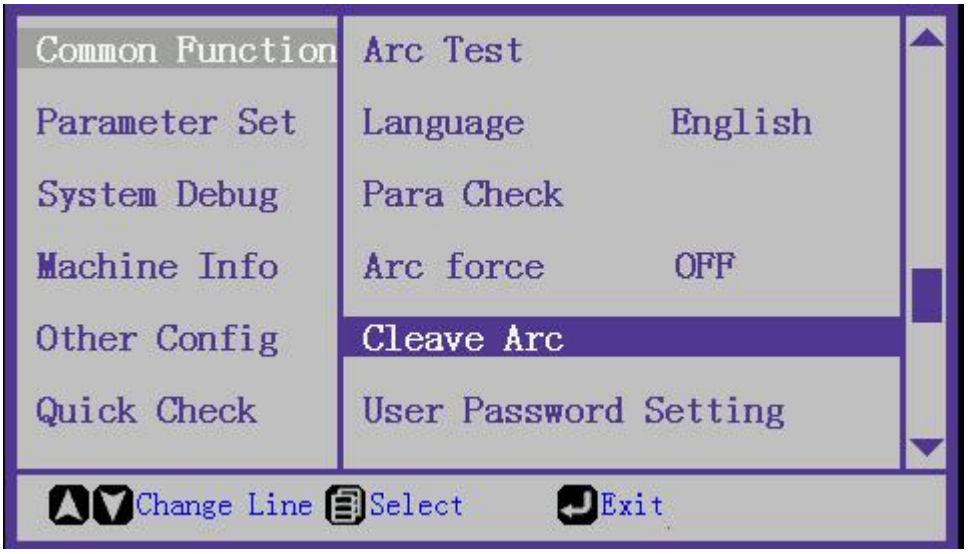
Function Introduction:"Fiber end face inspection" is not available during the fusion splicing process

· OFF: “Fiber end quality check” (default)

· ON: No “Fiber end quality check”



5.Cleave Arc



6.User Password Setting

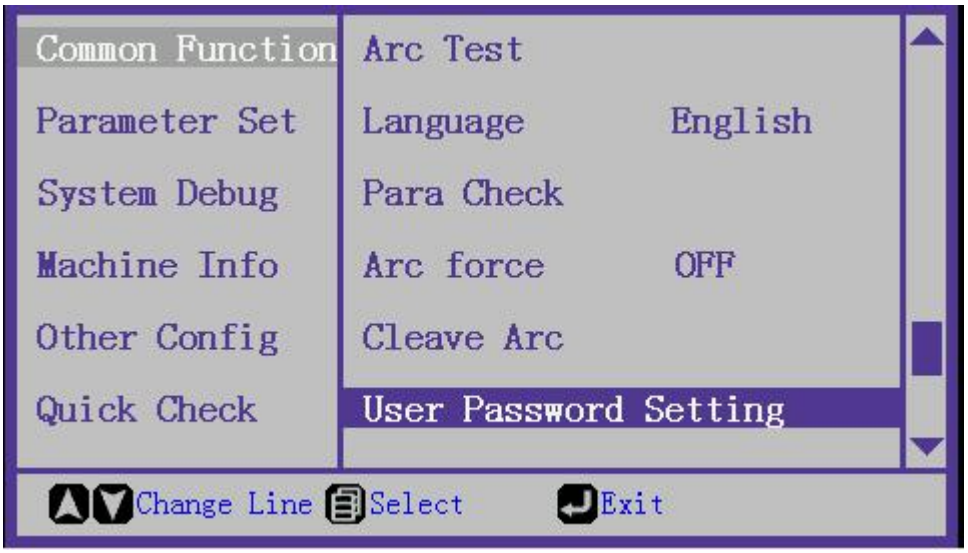
Function Introduction: For client password settings

The current state:

· OFF: No need for a password when turning on

· ON: Needs a password to turn on

Change Password: Press “Menu” to enter, type the new password and press “Menu ” to save



7.Done

4.Functions

4.2. Parameter Set

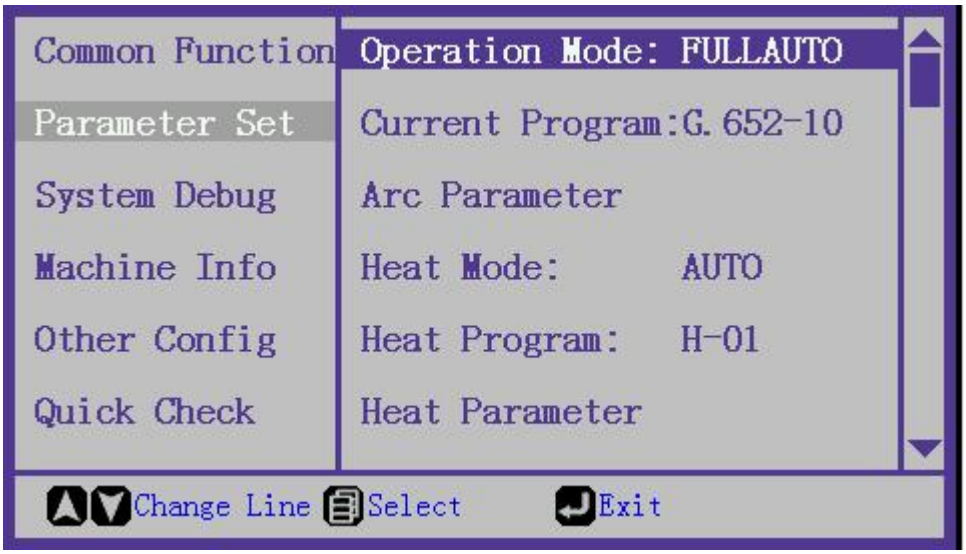
1. Operation Mode

Function Introduction: Used to select the operation mode.

FULLAUTO: Automatically start splicing after windproof cover is closed

AUTO: After the windproof cover is closed, press the “SET” to start the splicing

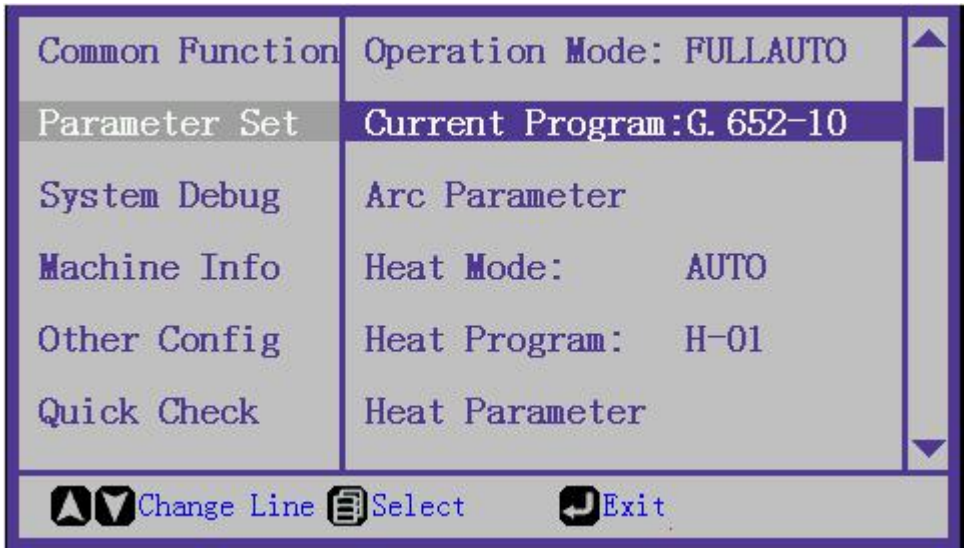
MANUAL: Manual operation for advancing and aligning fiber, and finish splicing



2. Current Program

Function Introduction: Used to select different types of optical fiber splicing and other custom heating procedures.

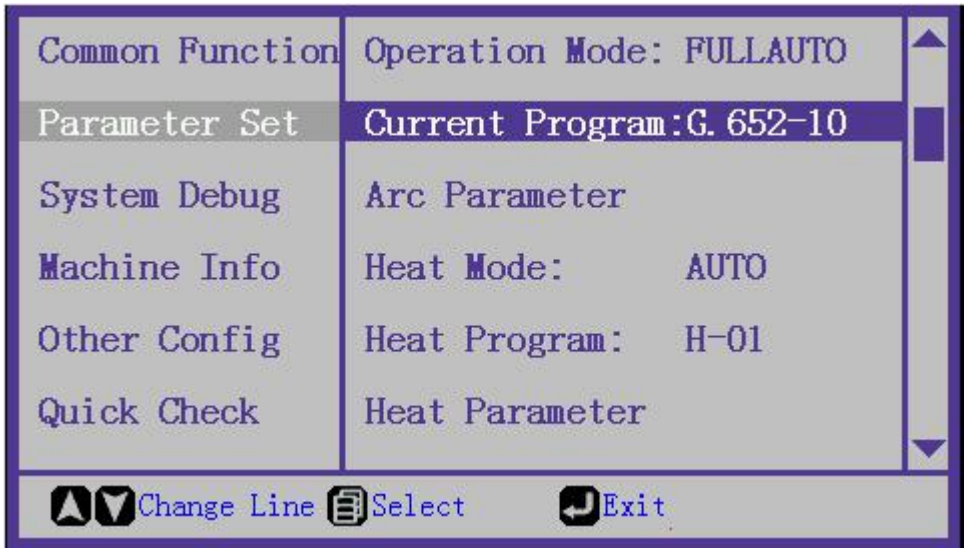
Step: Arc Parameter Set



3. Arc Parameter

Function Introduction: The parameter settings for current arc program.

Step: Arc Parameter Set

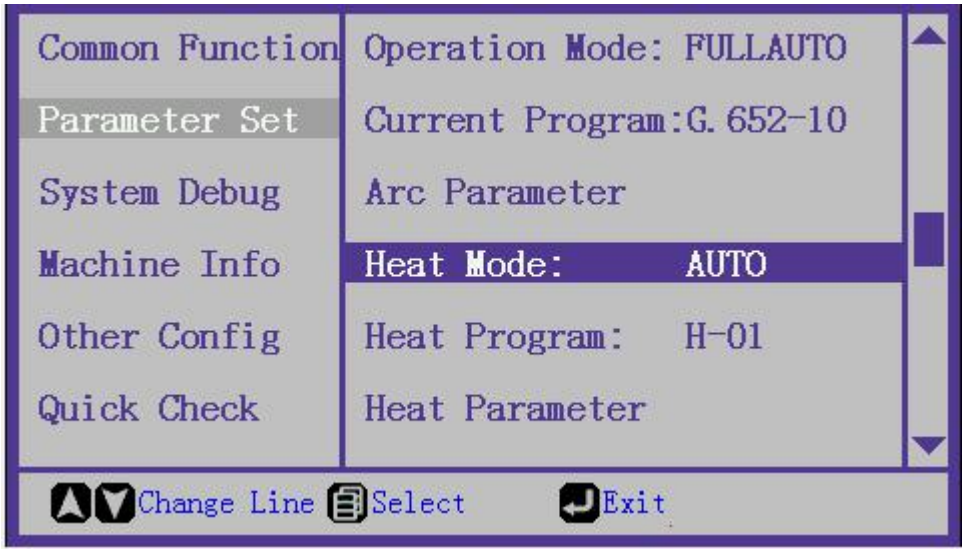


4. Heat Mode

Function Introduction: Used to select the heat mode.

AUTO: Automatically start heating when heater cover is closed

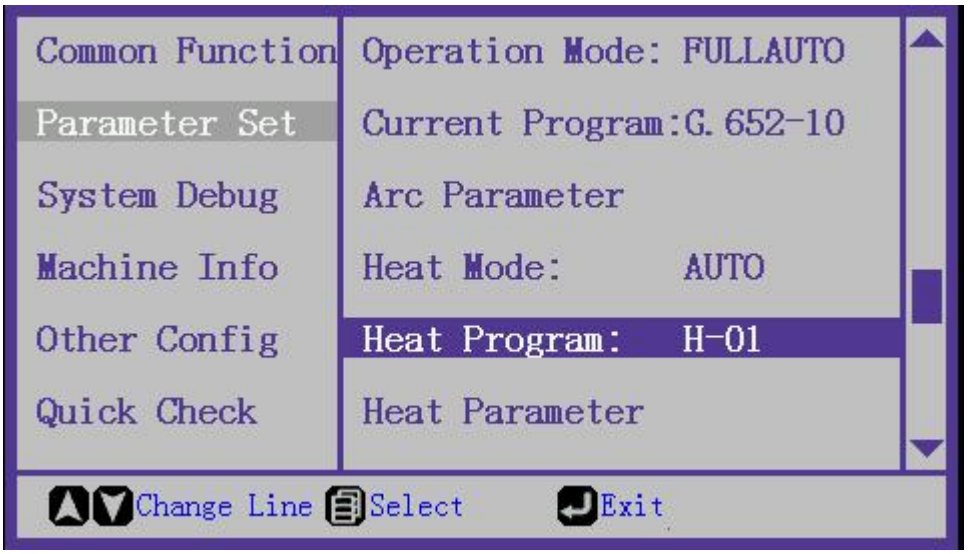
MANUAL: Press “HEAT” to start heating



5. Heat Program

Function Introduction: Use to select a custom heat program.

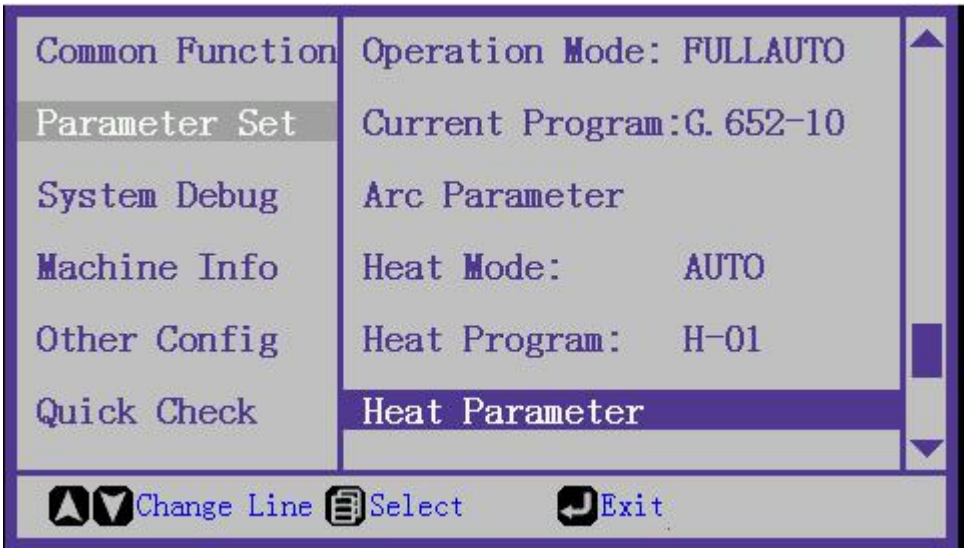
Step: Heat Parameter Set



6. Heat Parameter

Function Introduction: Use to set the current heating program.

Step: Heat Parameter Set



7.Done

4.Functions

4.2. Parameter Set

4.2.1. Arc Parameter Set

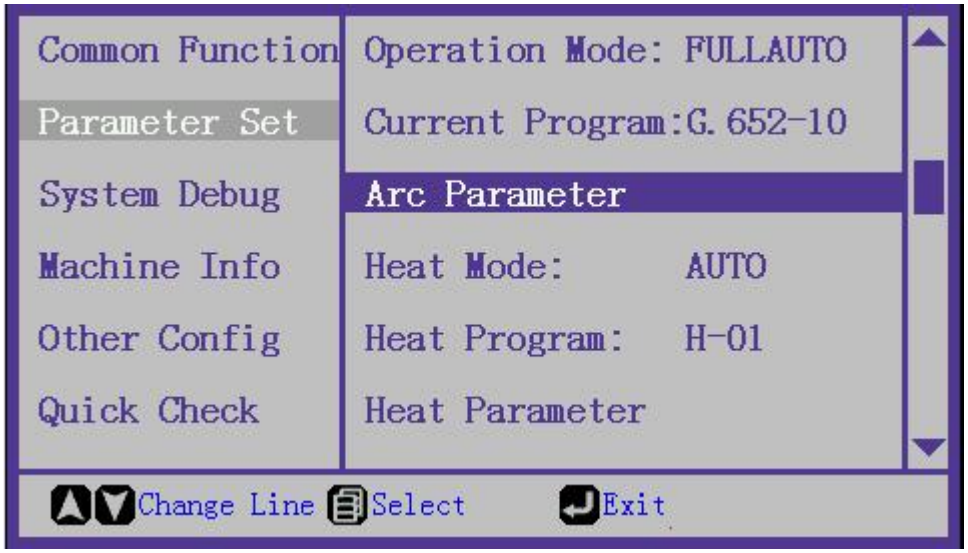
Arc Parameter Set

Function Introduction: Use for arc parameters set

Setting Step（Change current Arc procedure parameters）

(1)Enter "Parameter Set" Menu.

(2) Select "Arc Parameter", and press "menu" to enter the current Arc procedure Parameter setting page.

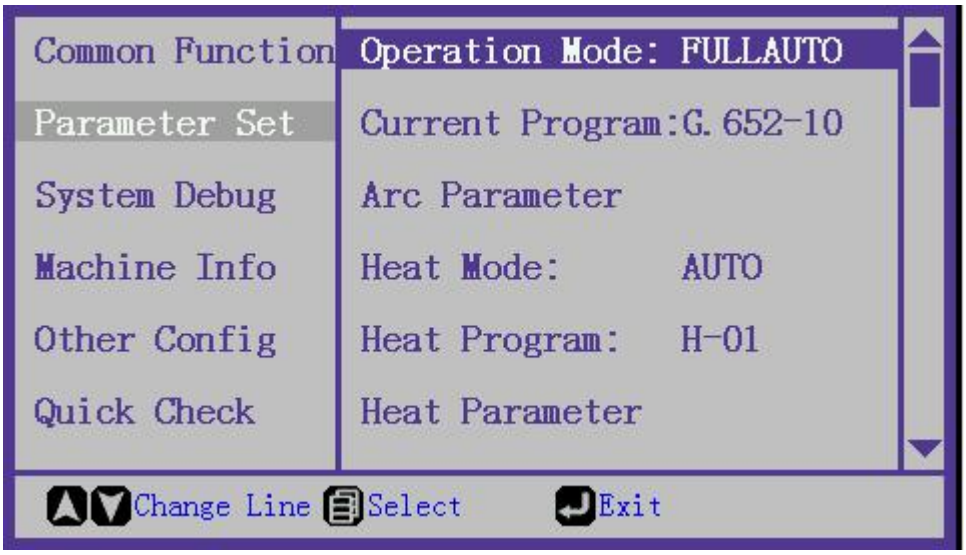


(3) Change parameters as needed (It is recommended to use Arc-Power Test to correct Arc parameters) .

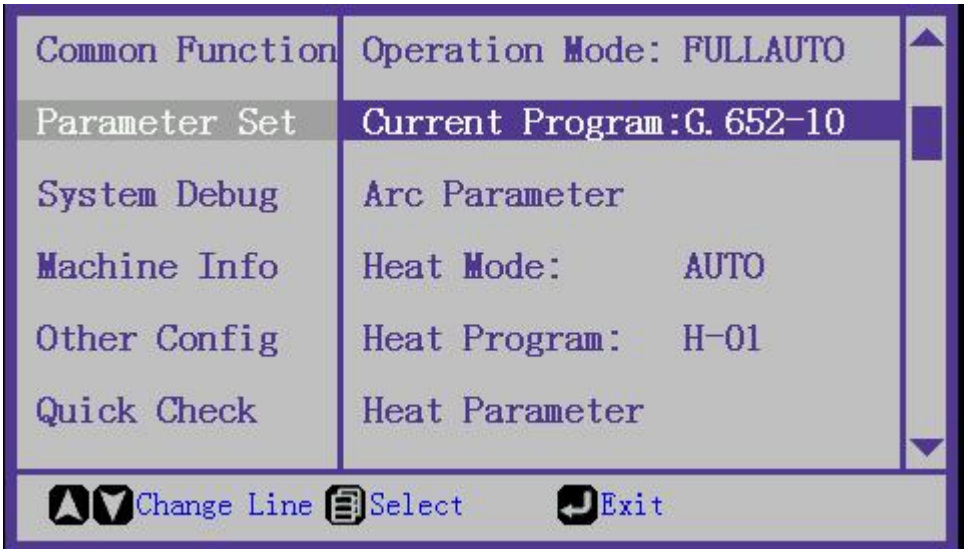
(4) Done

Setting Step:(select new splicing procedure and change parameters) :

(1) Enter "Parameter Set".

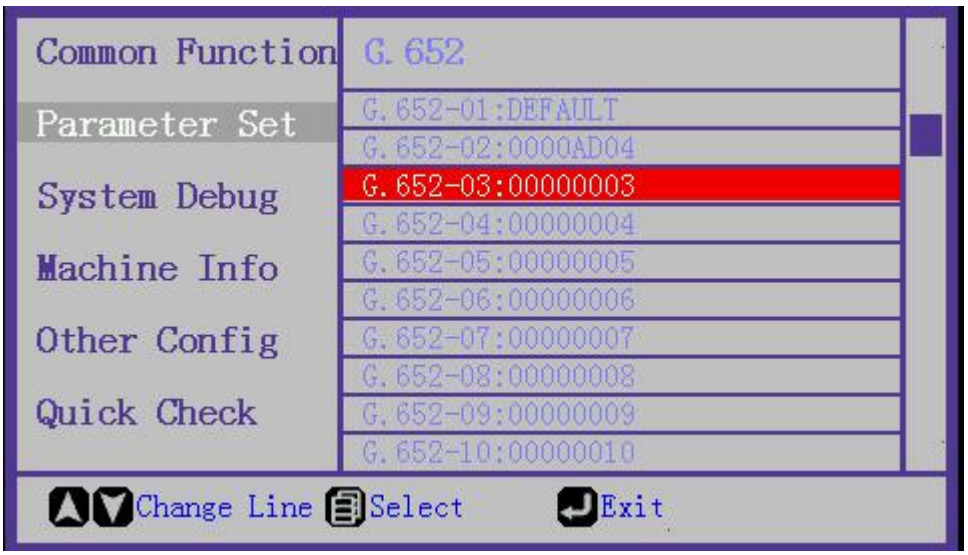


(2) Select “Current Program” and Press “Menu” to enter the Current Program.



(3) Select the current program according to the type of fiber used, press “Menu” to enter the fusing program selection page.

(4) Select the current program you need, press the “Menu” to confirm selection, the selected program will become red.



(5) Press “SET” to enter the parameter set page, and modify the parameters as needed (It is suggested to use arc test to correct the arc parameters).

(6) Done

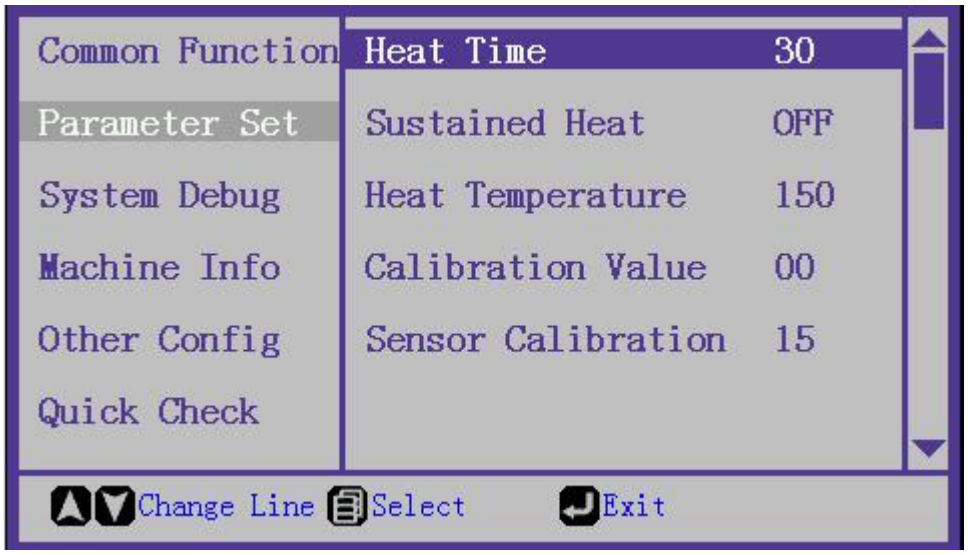
4.Functions

4.2. Parameter Set

4.2.2. Heat Parameter Set

Heat Parameter Set

Function Introduction: For Heat Parameter Set

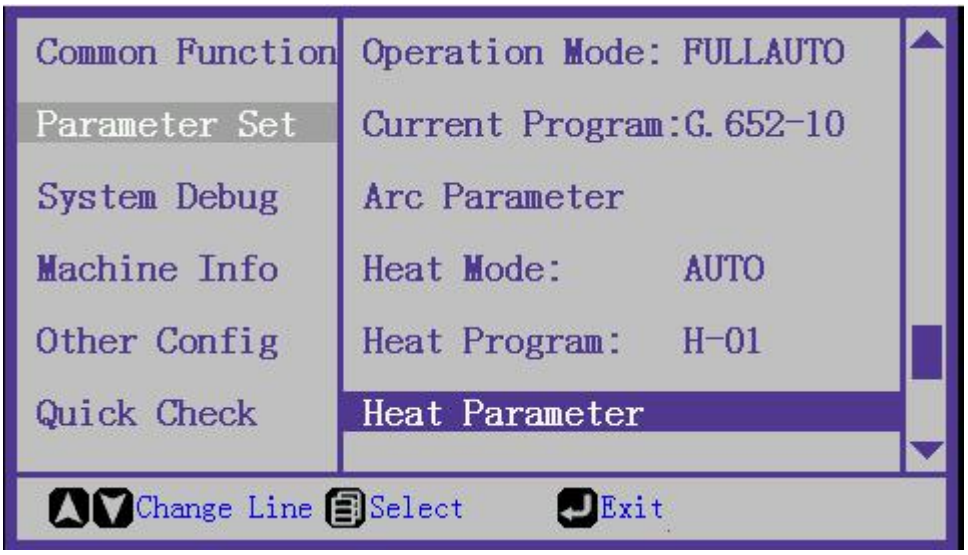


Parameter name	Explain	Range of values
Heating time (seconds)	Set the duration of heating	10 ~ 90
Keep Heating (4 minutes)	Turn on or off continuous heating for 4 minutes	Turn on/Off
Heat temperature	Set Heat Parameter	100 ~ 250
Collating value	Calibration result of temperature sensor	00
Sensor calibration	Calibration of temperature sensor	15

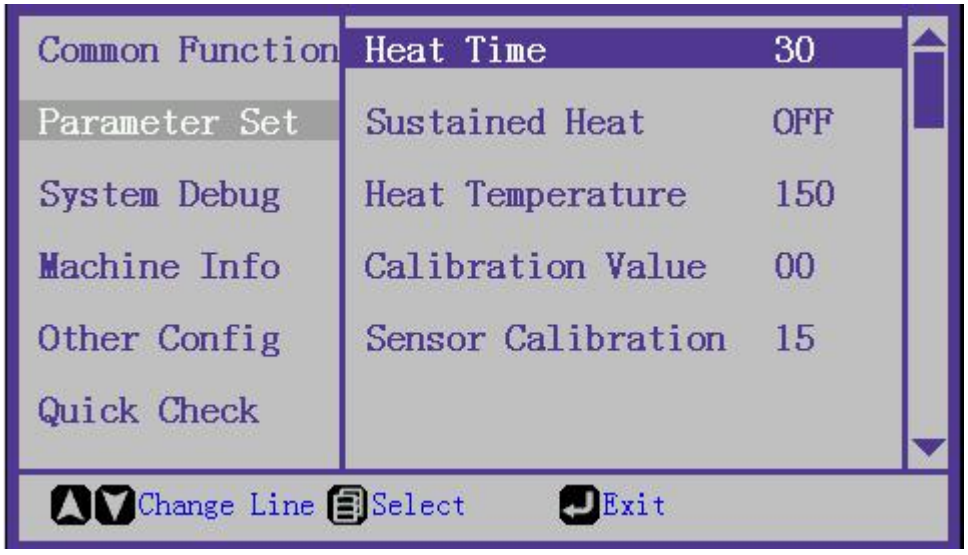
Setting Step: （Modify the current heating program parameters）：

(1) Enter “Parameter Set” .

(2) Select the “Heat Parameter” and press “Menu” to enter the current heater parameter settings page.



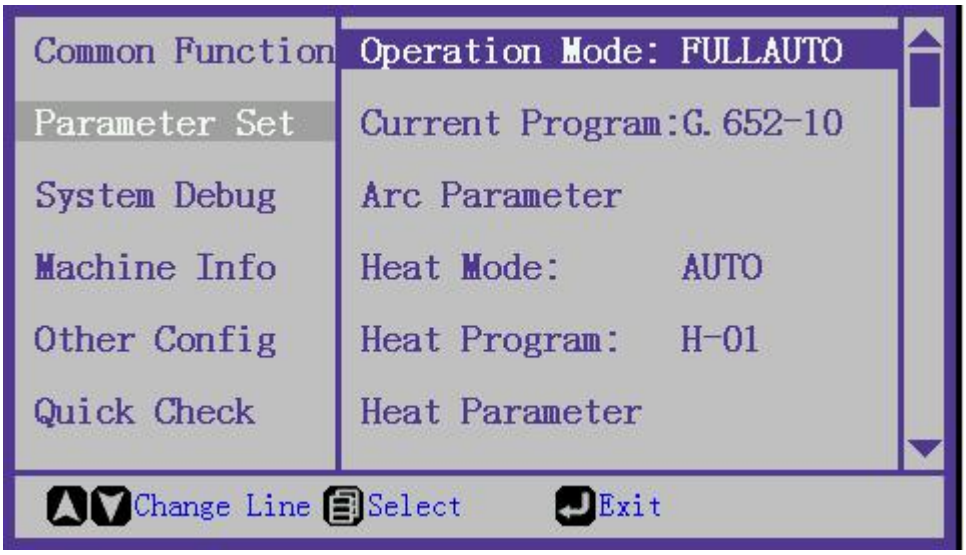
(3) Modify “Heat Time” and “Heat Temperature” as needed.



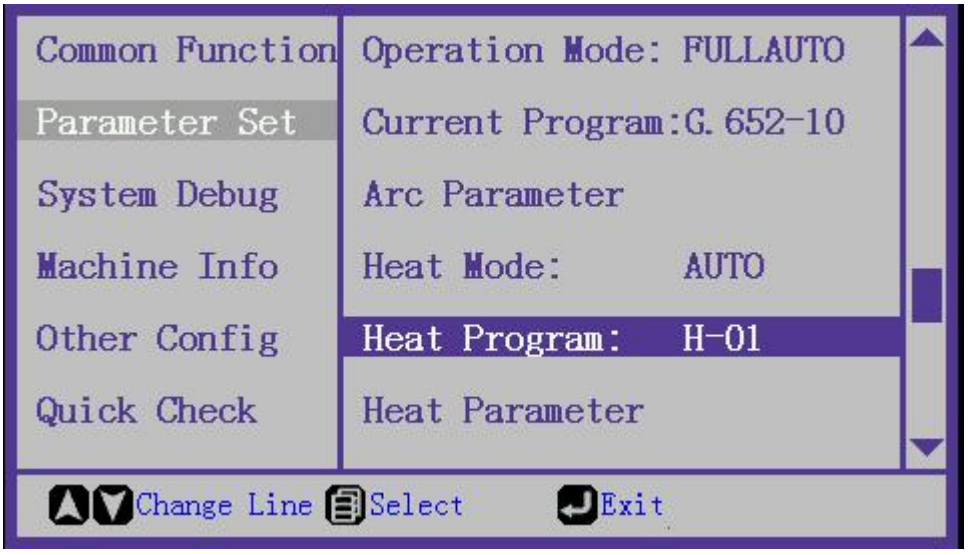
(4) Done

Setup step (select new heat procedure and modify parameters) :

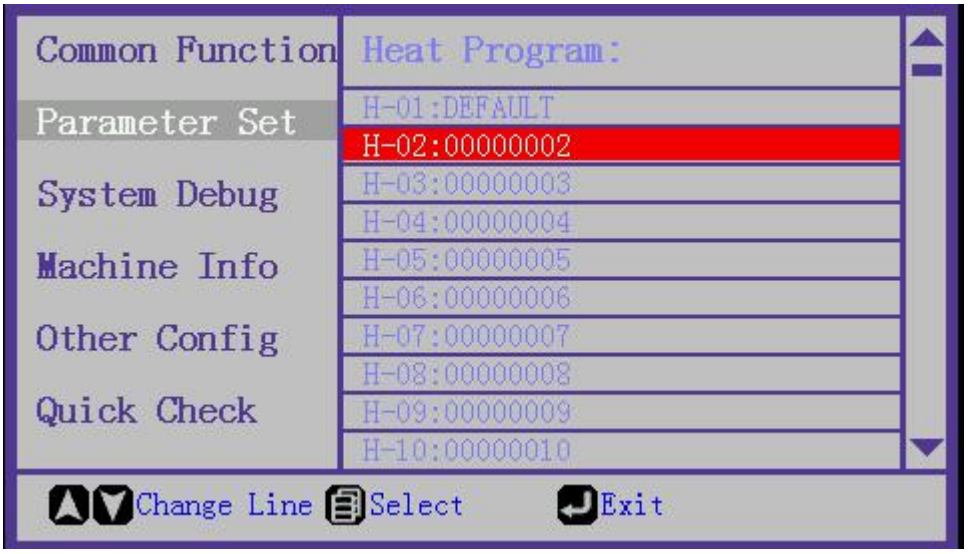
(1) Enter “Parameter Set"



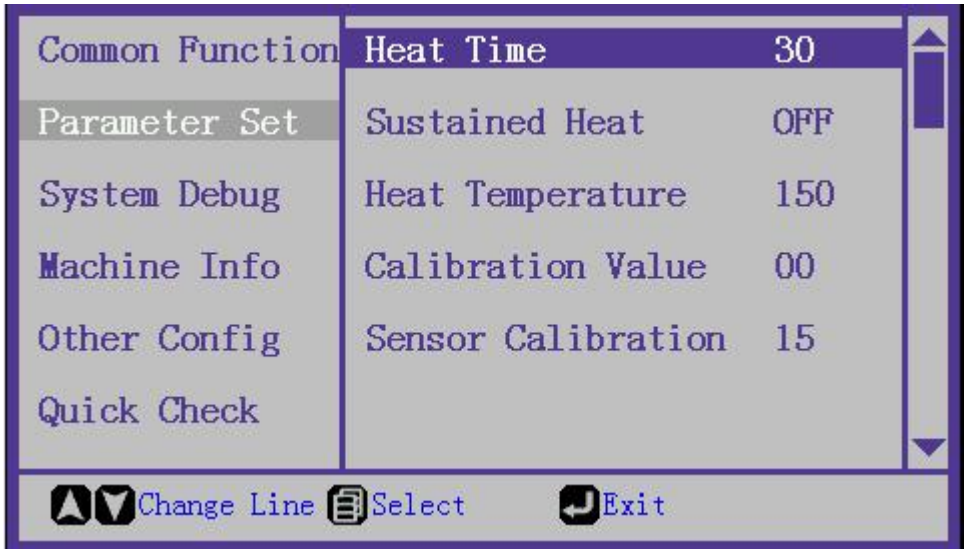
(2) Select the “Heat Program”, press “Menu ” to enter the heat program selection page.



(3) Select the " Heat Program " which you want to use, press “Menu”to confirm the selection, and the selected Program will become red.



(4) Press the “SET” to open the parameter set page, and modify “Heat Time” and set “Heat Temperature” as needed.



Done

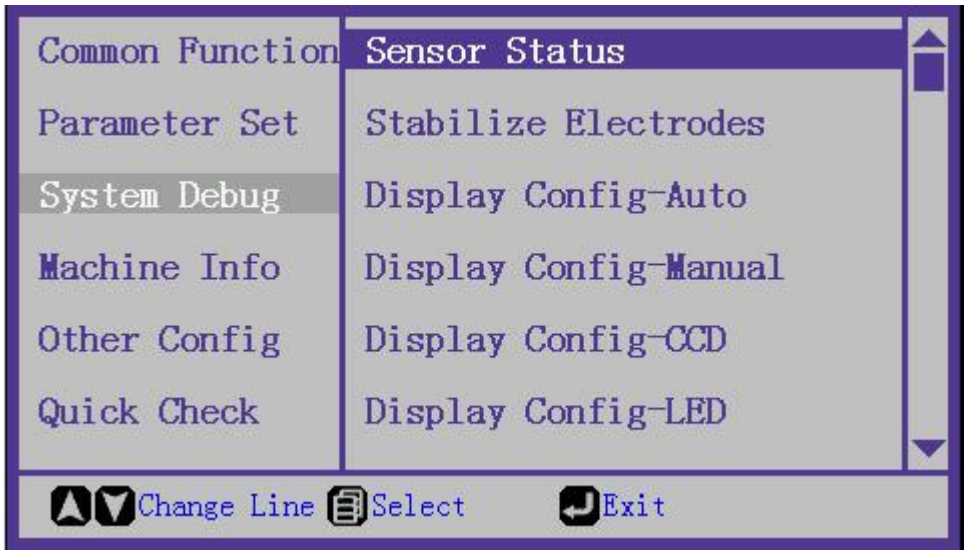
4.Functions

4.3. System Debug

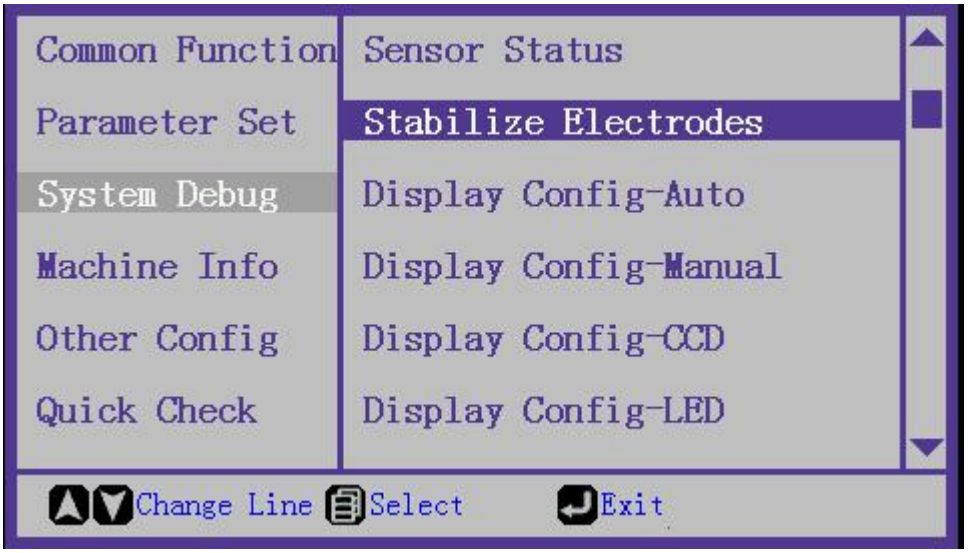
(1)Sensor Status

Function Introduction: Used to check the current parameters and status of each sensor of the device.

Step： Sensor Status



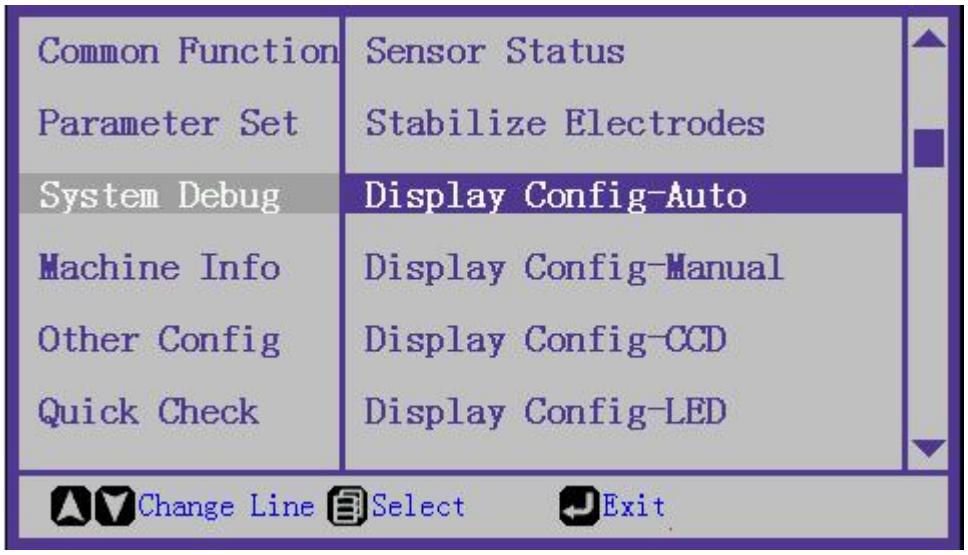
(2)**Function Introduction:** Used for checking the arc status of electrode or activate the electrode.



(3)Display Config -Auto

Functiion Introduction: For automatic completion of image parameter correction.

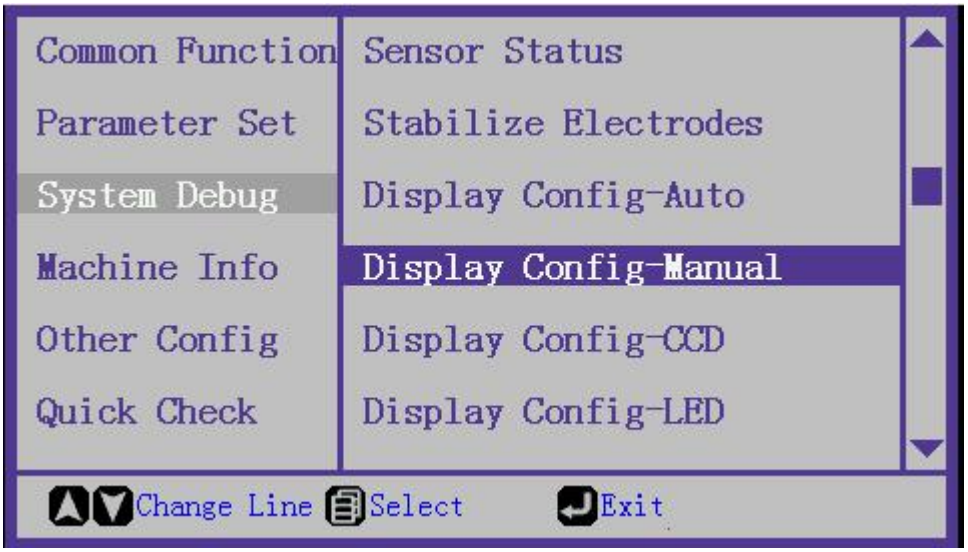
Step: Display Config-Auto



(4)Display Config-Manual

Function Introduction: For Manual adjustment of image position.

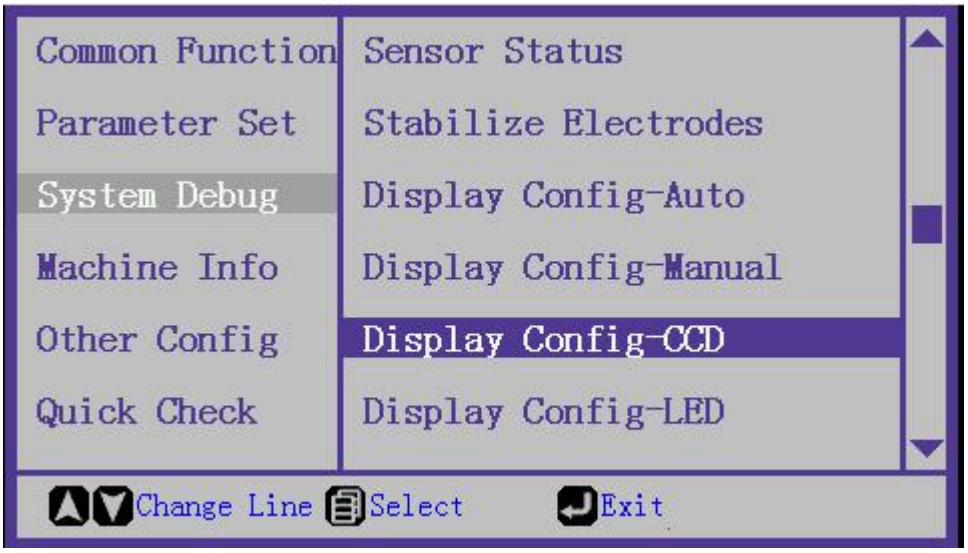
Step： Display Config-Manual



（5）Display Config-CCD

Function Introductino: For Manual adjustment of CCD parameters.

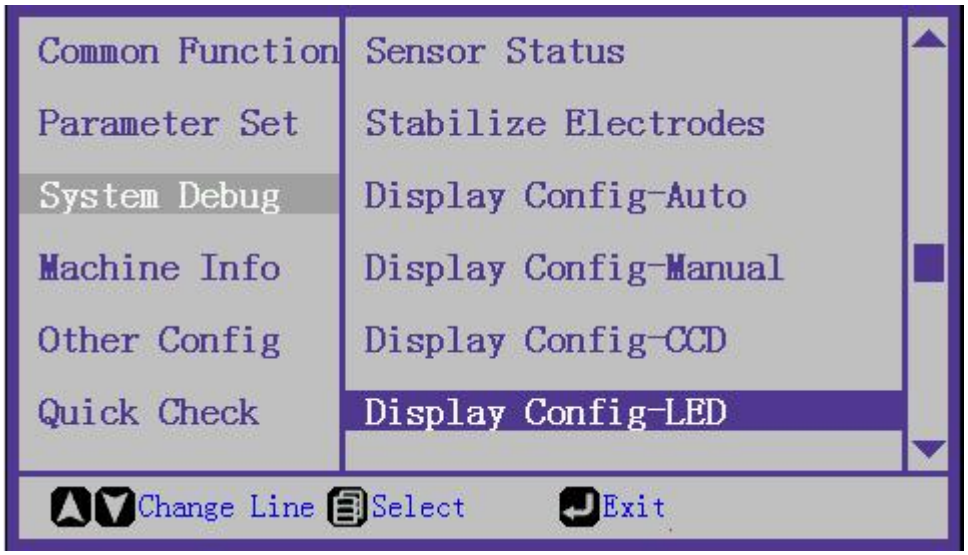
Step： Display Config-CCD



（6）Display Config-LED

Function Introduction: For Manual adjustment of LED parameters.

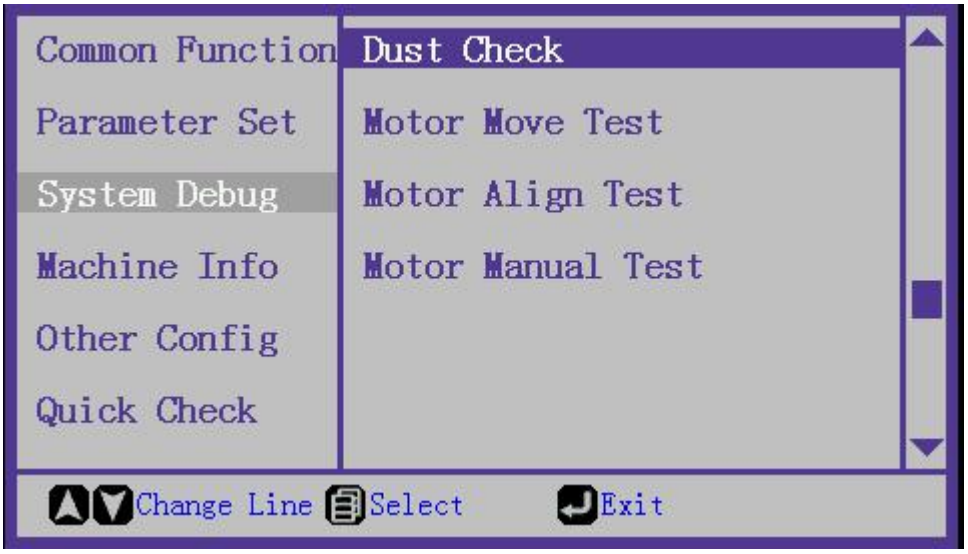
Step： Display Config-LED



（7）Dust Check

Function Introduction: For detecting blemishes in the display area.

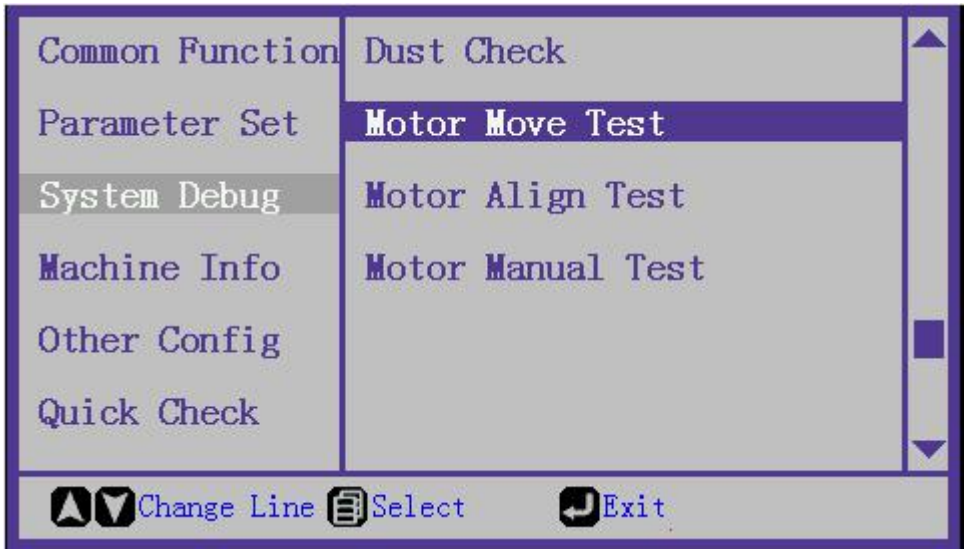
Step： Dust Check



(8)Motor Move Test

Function Introduction: To complete the automatic test of the motor move.

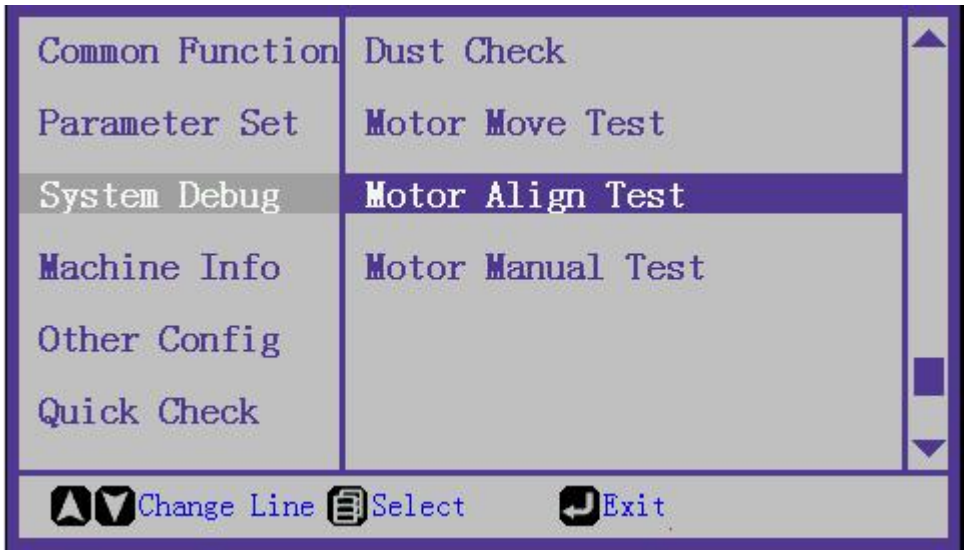
Step： Motor Move Test



(9)Motor Align Test

Function Introduction: For executing the automatic testing of the motor align.

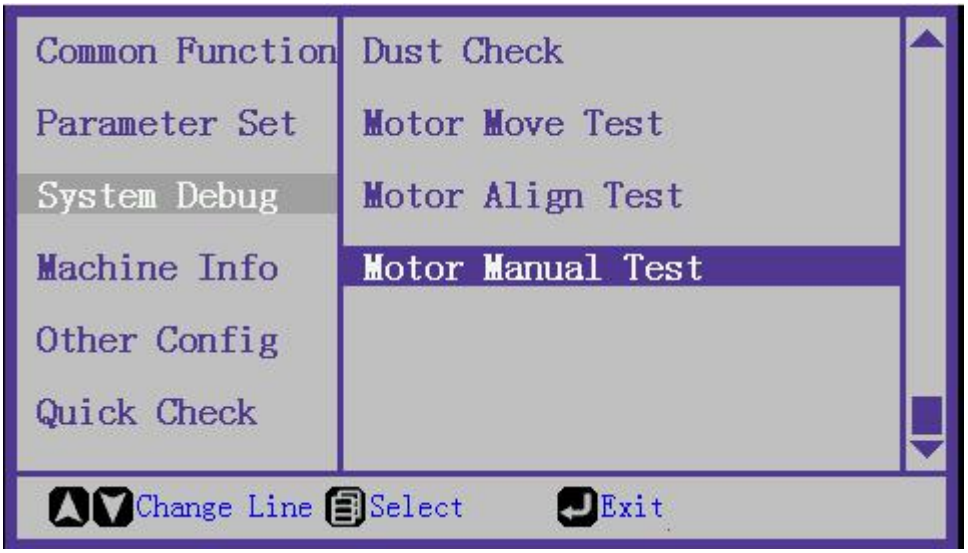
Step： Motor Align Test



(10) Manual Test

Function Introduction: To carry out the manual test of the motor move and motor align.

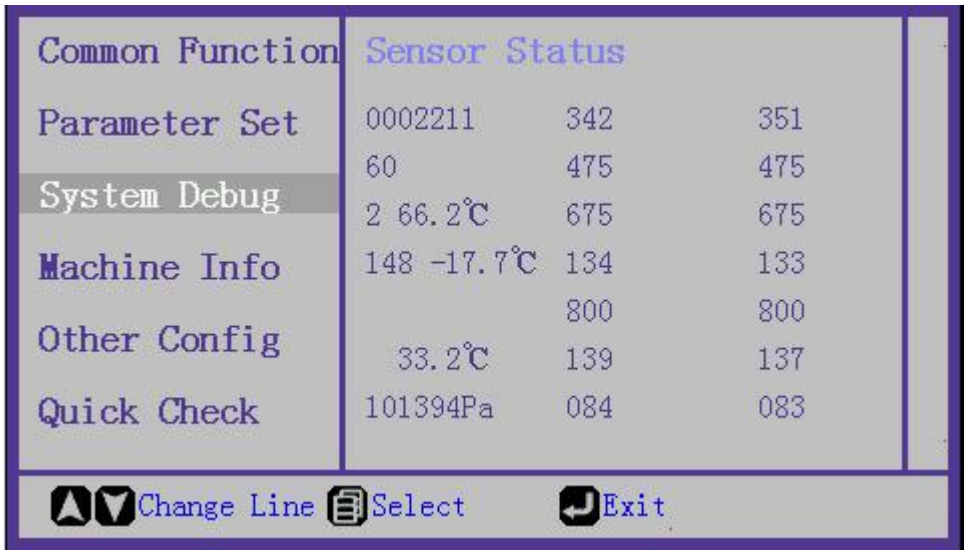
Step： Motor Manual Test



4.3.1. Sensor Status

Sensor Status

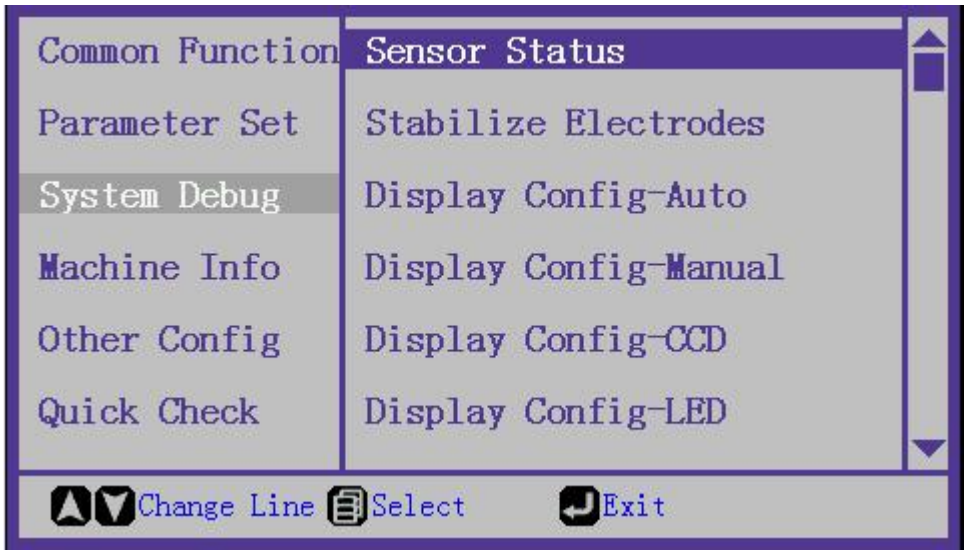
Function Introduction: Used to check the current parameters and status of each sensor of the device



Setting Step（Modify current splicing procedure parameters）：

(1) Enter "System Debug" Menu.

(2) Select the “Sensor Status”.



(3) Press “Menu ” to Enter the sensor status page.

Left Limit Sensor：OFF 0，ON 1

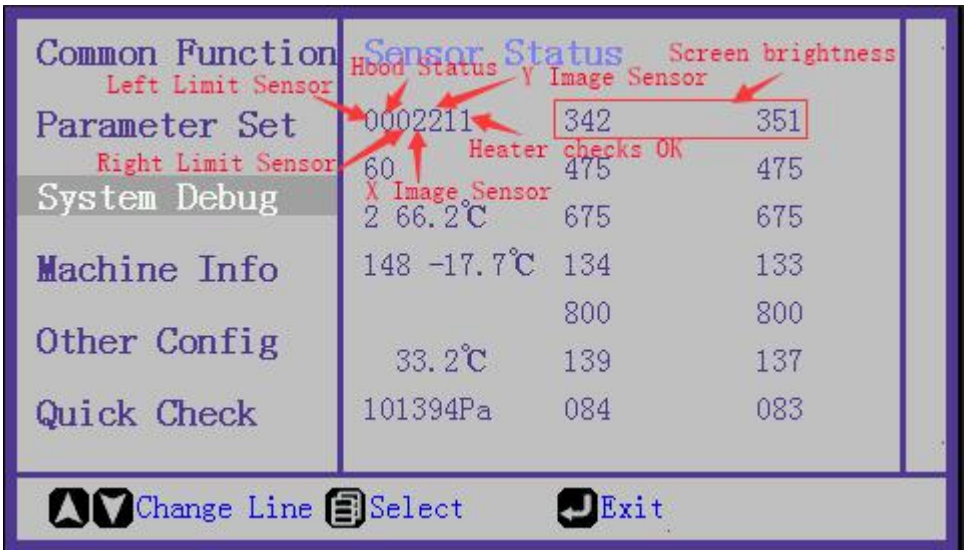
Hood Status：OFF 0，ON 1

Right Limit Sensor：OFF 0，ON 1

X Image Sensor：2 OK

Y Image Sensor：2 OK

Heater checks：1 OK



(4) Done

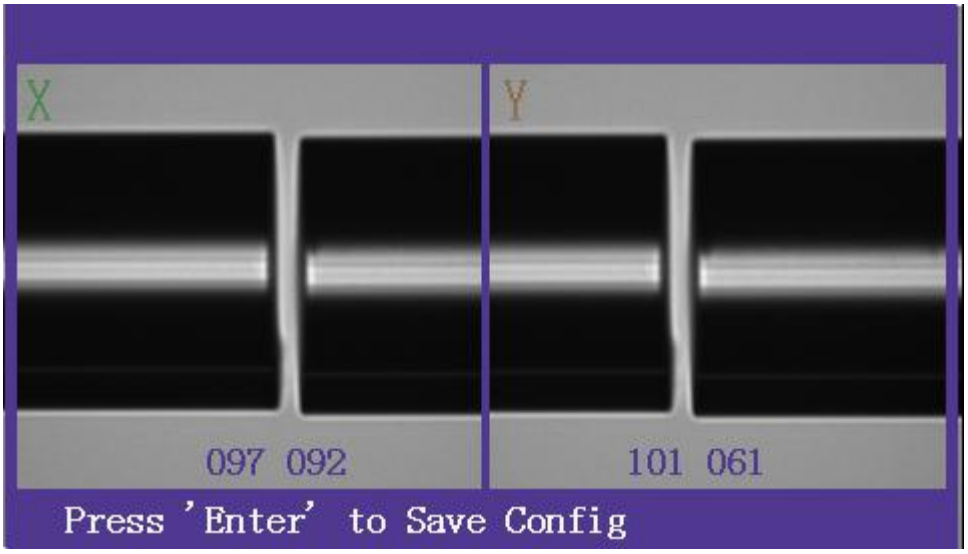
4.Functions

4.3. System Debug

4.3.2. Display Config-Auto

Display Config-Auto

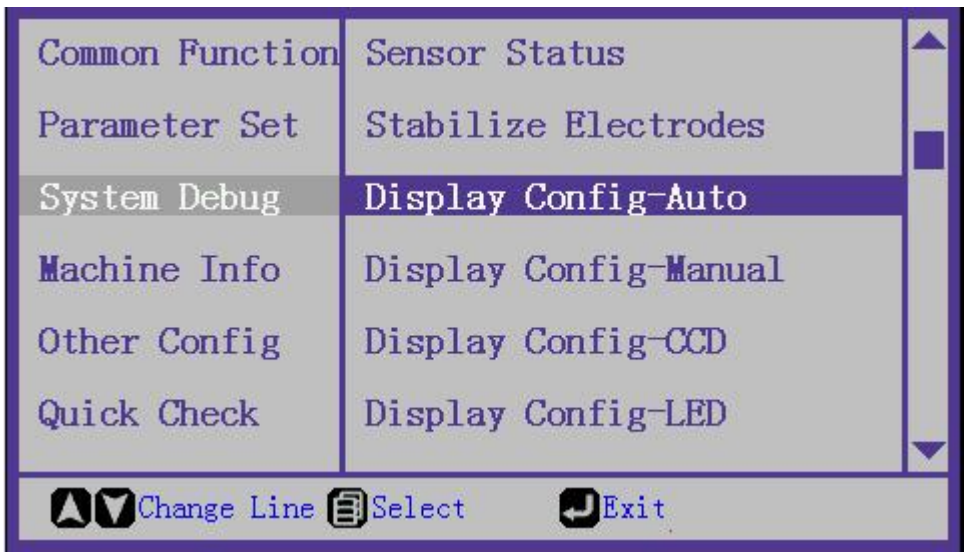
Function Introduction: For automatic completion of image parameter correction.



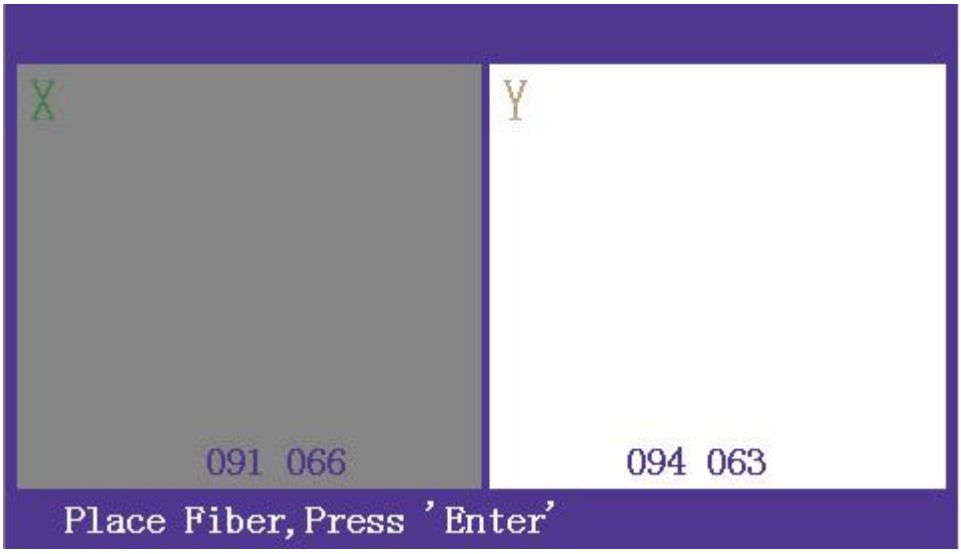
Setting step (Locate the arc):

(1)Enter "System Debug“ Menu.

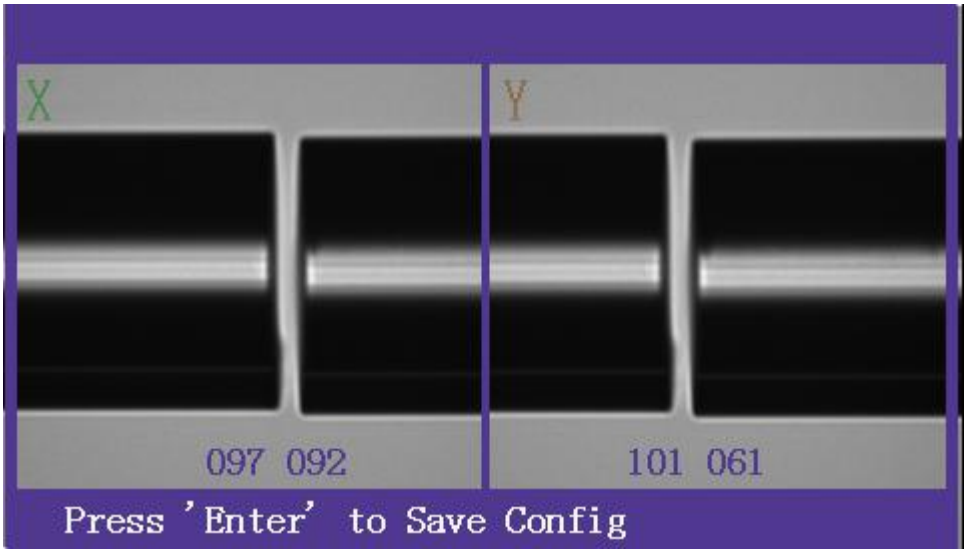
(2) Select “Display Config-Auto ” and press “Menu” to enter.



(3) Please note there is a marker on screen, “Place Fiber，Press Enter”，After inserting the fiber optic cable, press “Menu” to continue.



(4) Press “Enter" to Save Config.



(5) Done

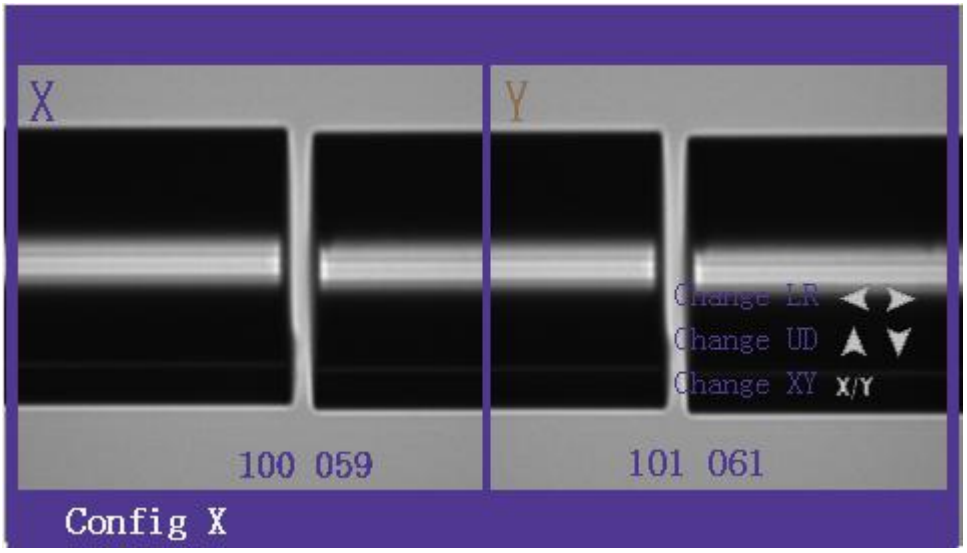
4.Functions

4.3. System Debug

4.3.3. Display Config-Manual

Display Config-Manual

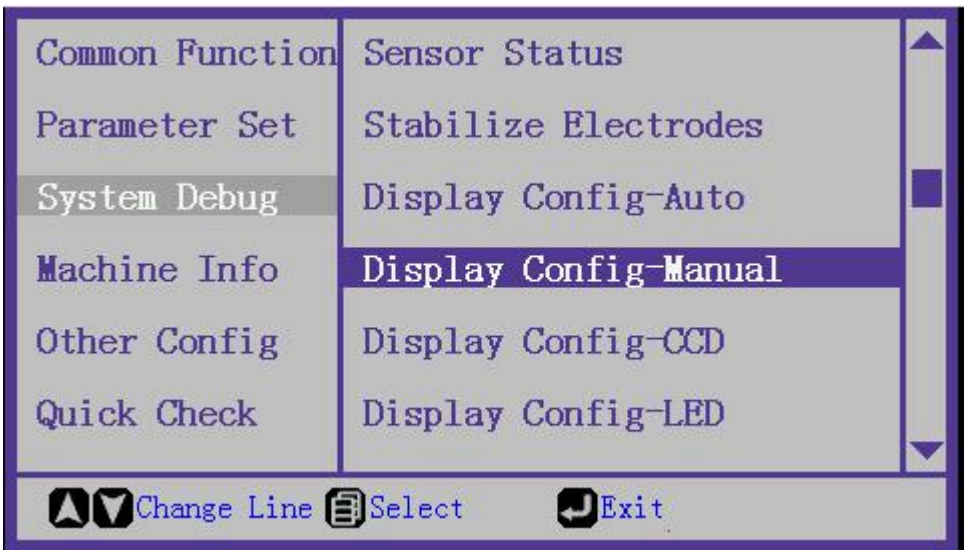
Function Introduction: Move the display area so that the arc position is in the center.



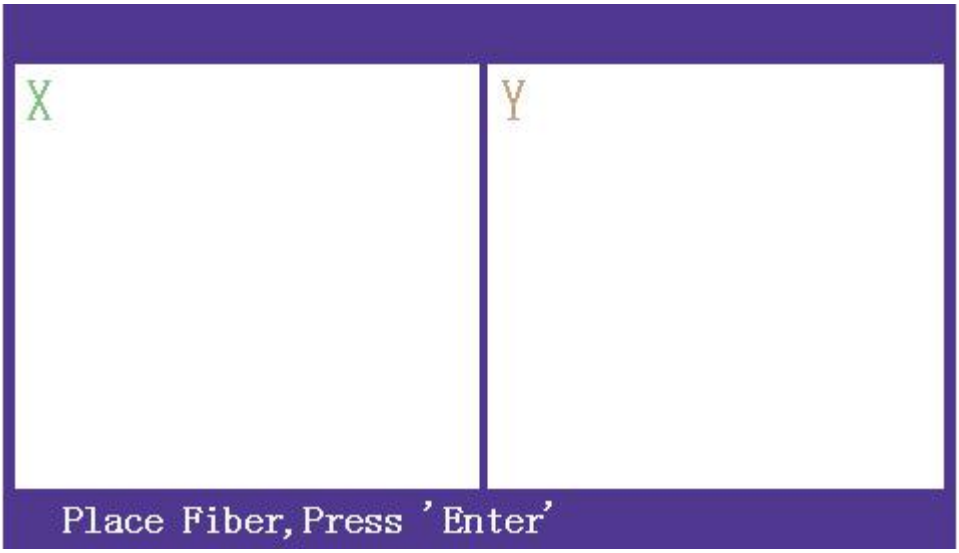
Setting Step（Move the display area）：

(1)Enter "System Debug" Menu.

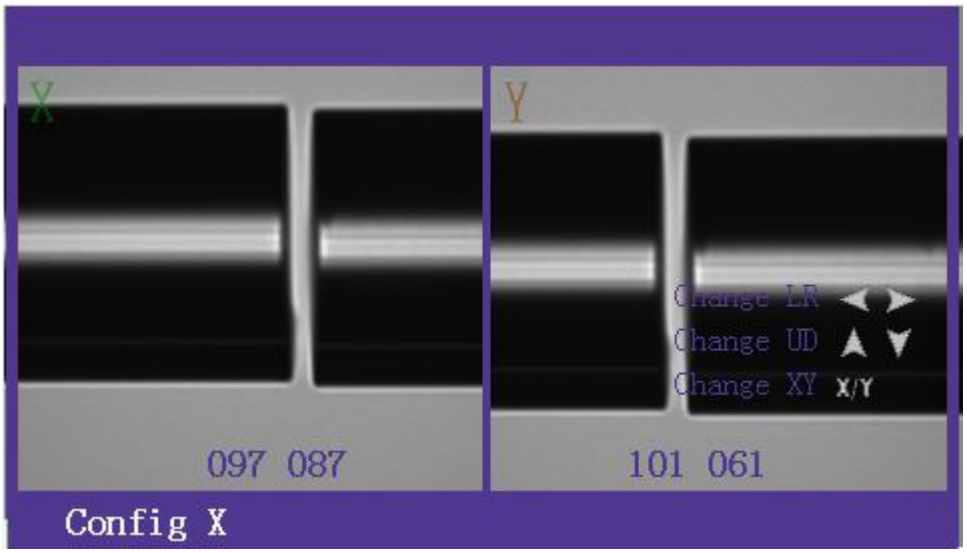
(2) Select the" Display Config-Manual " and press " Menu " to enter the page.



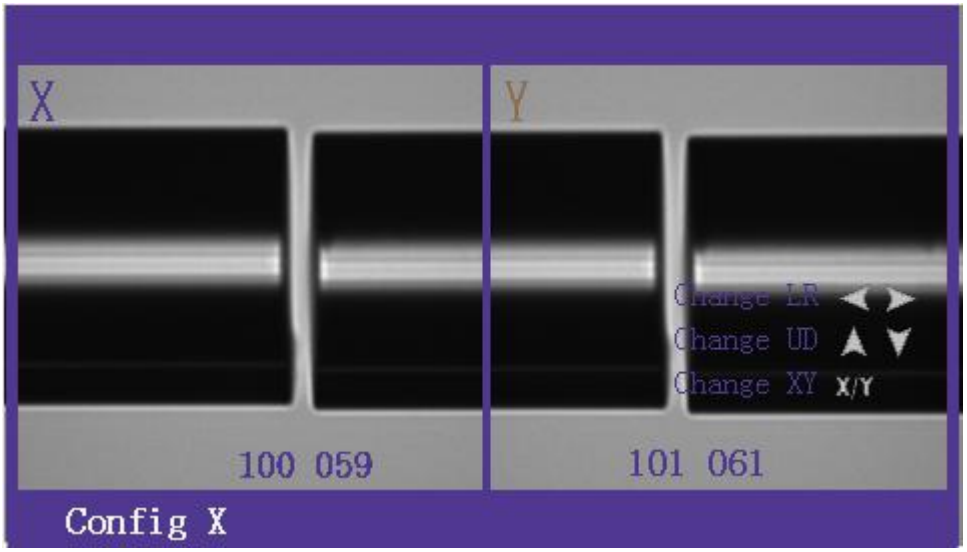
(3)The screen will show “Place Fiber, Press 'Enter'”.



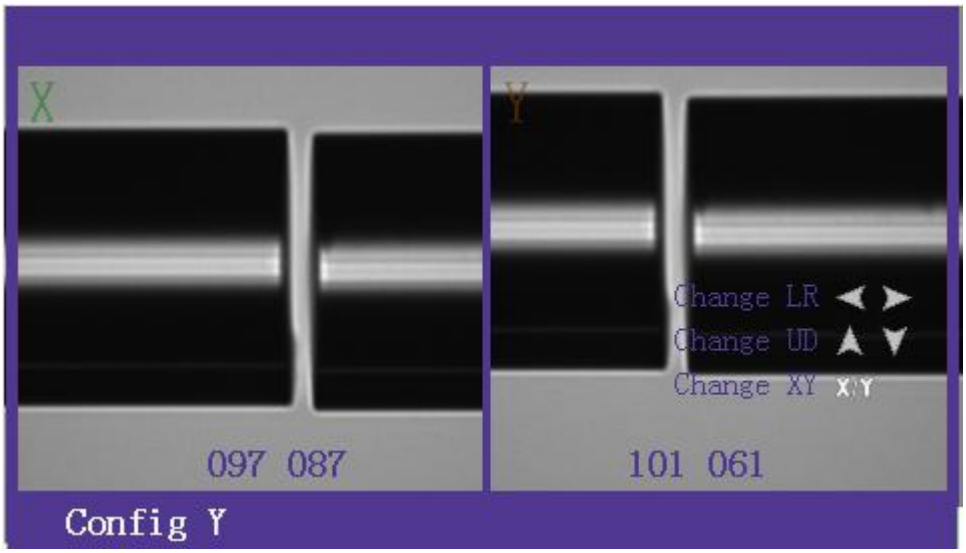
(4) After inserting the fiber optic cable, press “Menu  ” to continue.



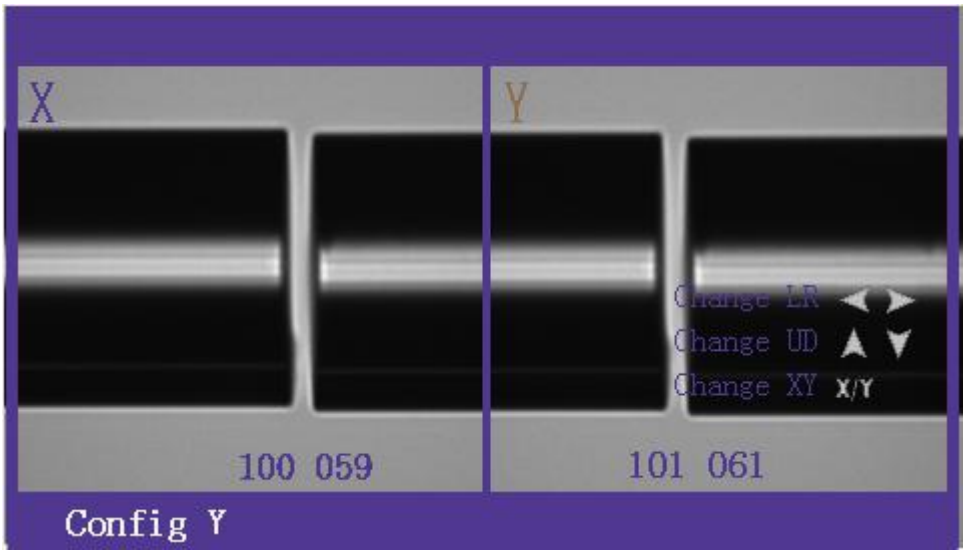
(5) Press “Up and down ”and “Left and right ”to manually adjust the position of the optical fiber on the x screen.



(6) Press “X/Y” to switch to the Y screen.



(7) Press “Up and down ” and “Left and right ”to manually adjust the position of the optical fiber on the Y screen.



(8) Done

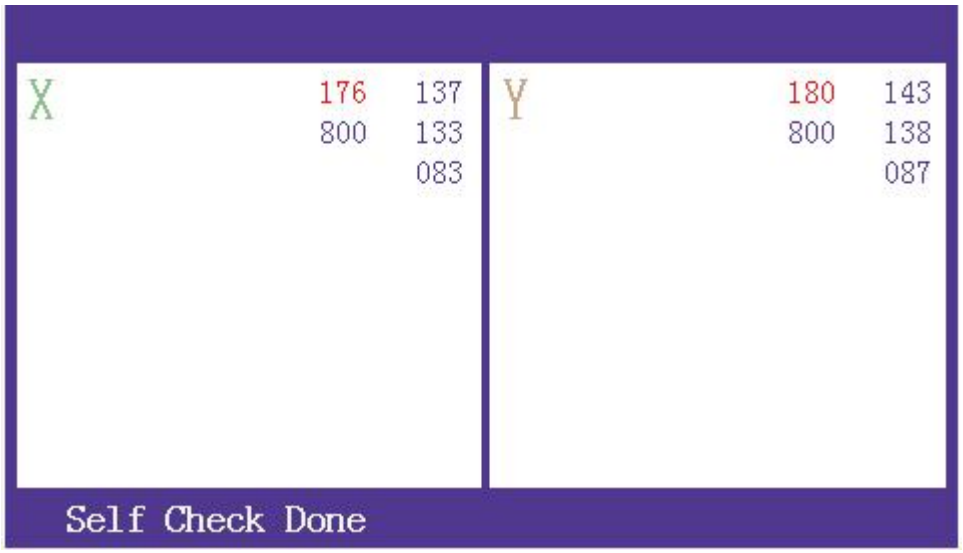
4.Functions

4.3. System Debug

4.3.4. Display Config-CCD

Display Config-CCD

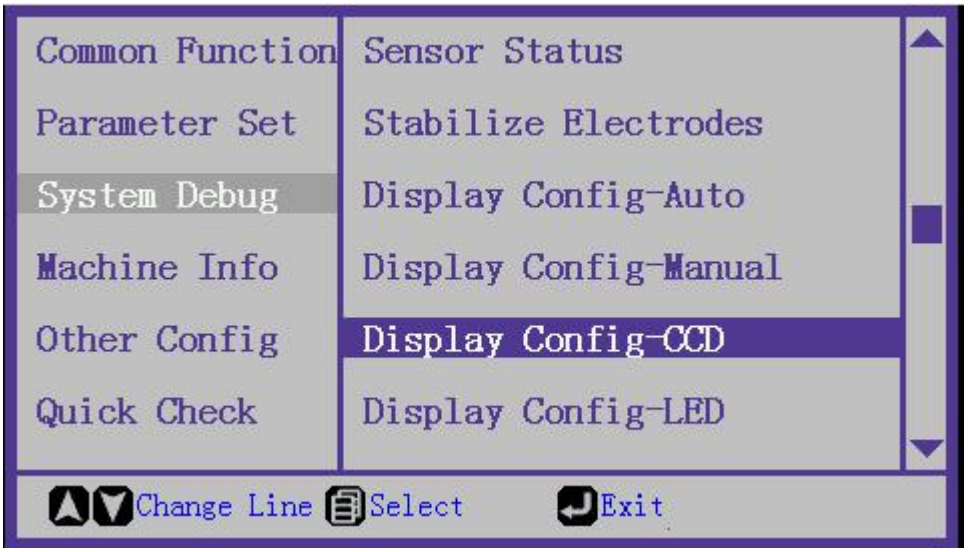
Function Introduction: For Manual adjustment of CCD parameters.



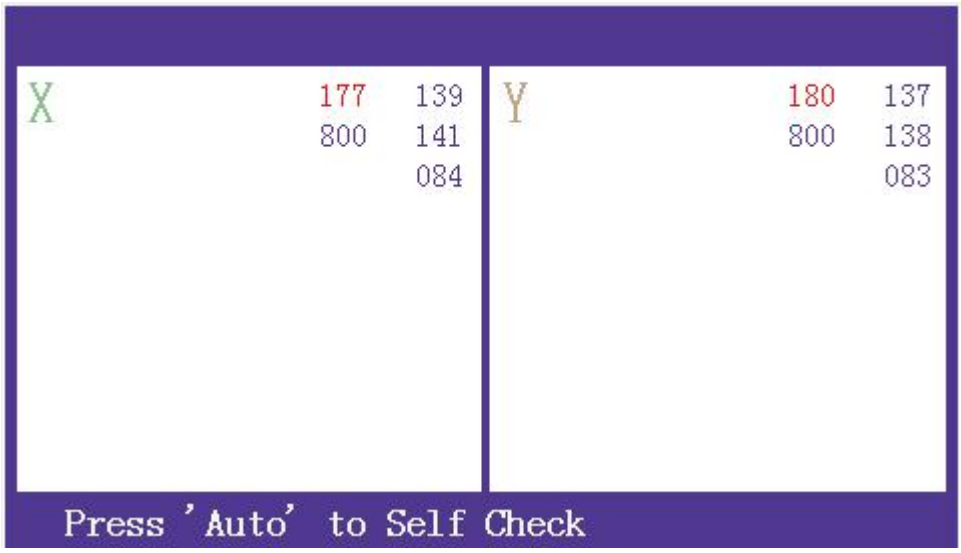
Setting Step（Modify current splicing procedure parameters ）：

(1) Enter "System Debug" Menu.

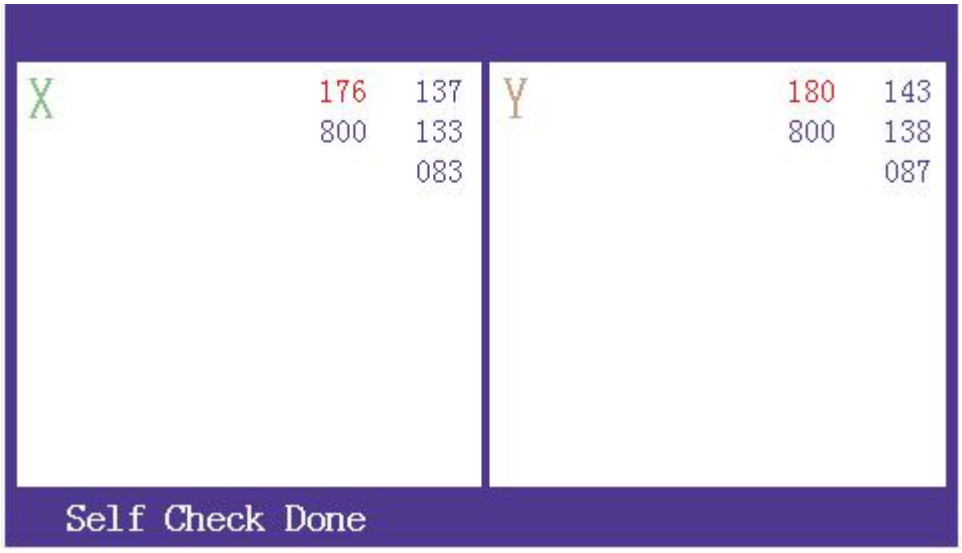
(2) Select the “Display Config-CCD” and press “Menu” to enter the page.



(3) Prompt “Press Auto to Self Check”and Press “SET” to continue.



(4) Self Check Done.



(5) Done

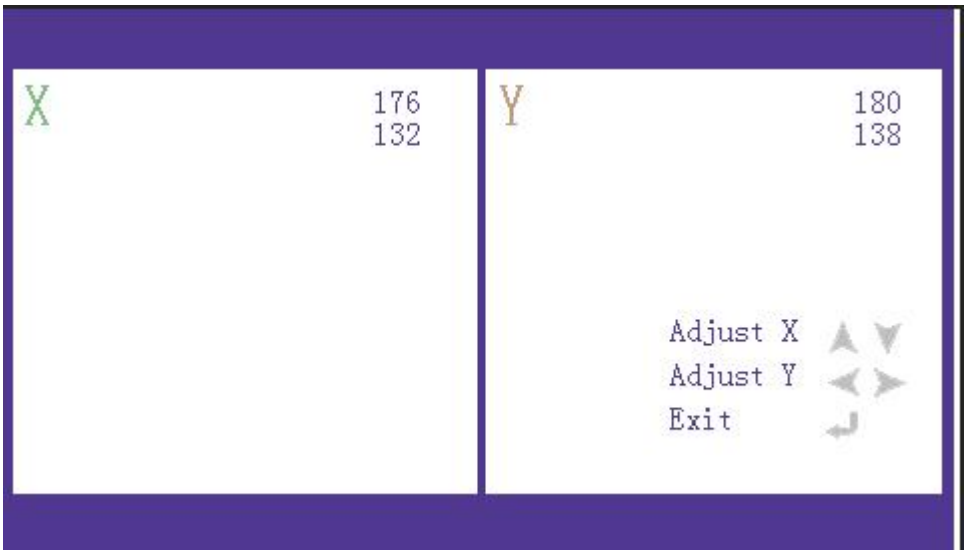
4.Functions

4.3. System Debug

4.3.5. Display Config-LED

Display Config-LED

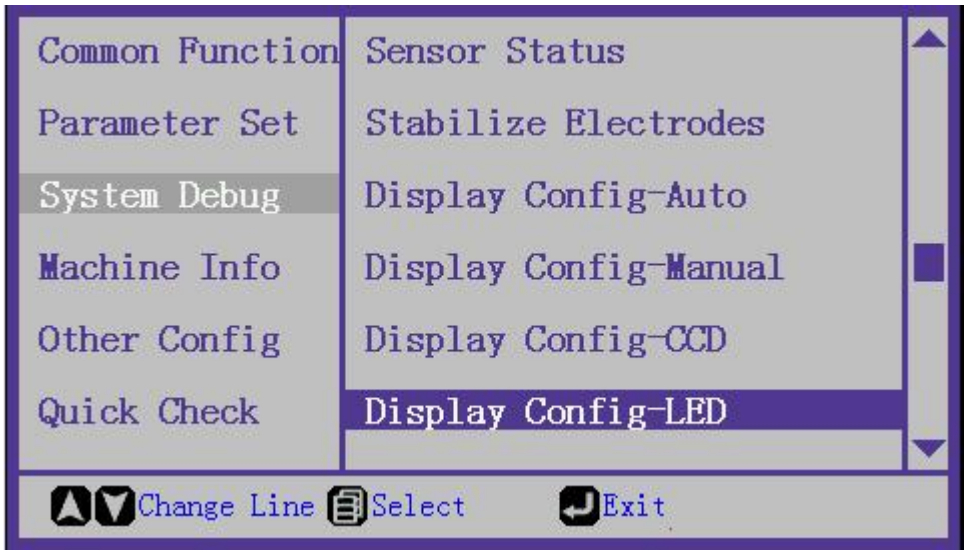
Function Introduction: For Manual adjustment of LED parameters.



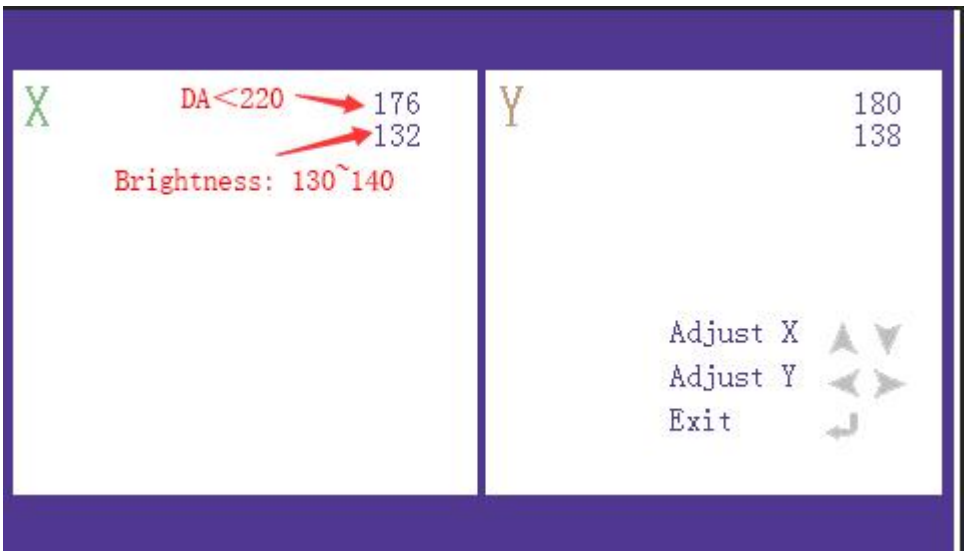
Setting Step（Modify current splicing procedure parameters）：

(1) Enter"System Debug"Menu.

(2) Select the “Display Config-LED”.



(3) Press “Menu” to enter the menu page, manually adjust the LED parameter, DA < 220, Brightness 130 ~ 140.



(4) Done

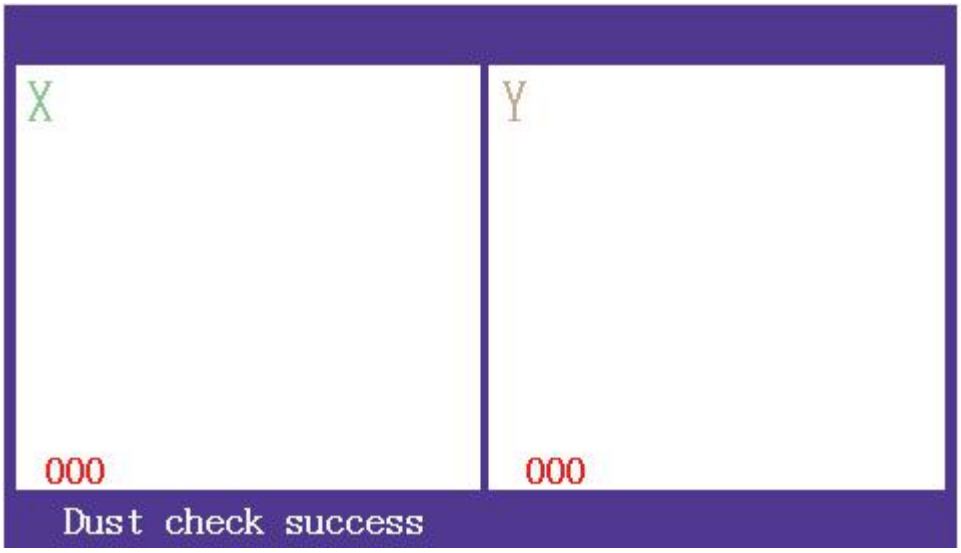
4.Functions

4.3. System Debug

4.3.6. Dust Check

Dust Check

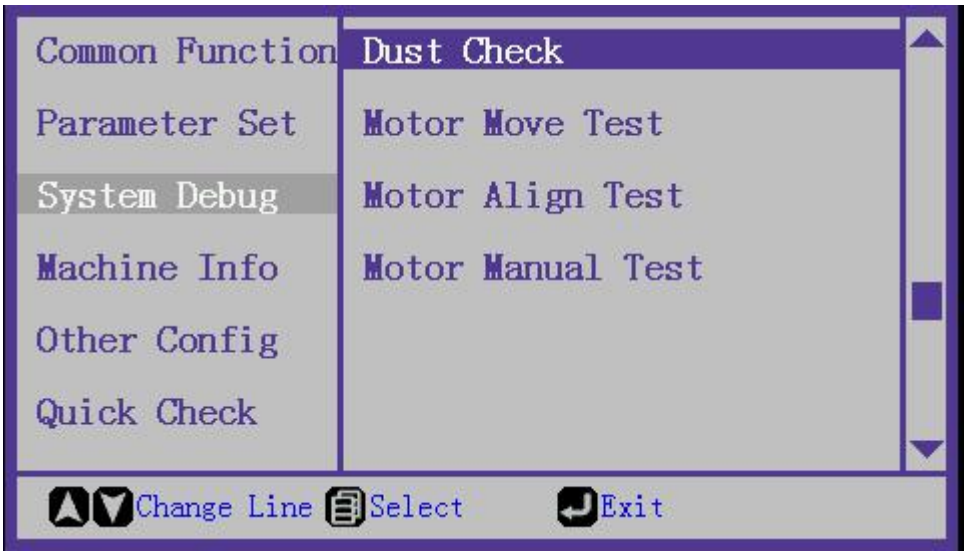
Function Introduction: For detecting the if it has blemishes in the display area.



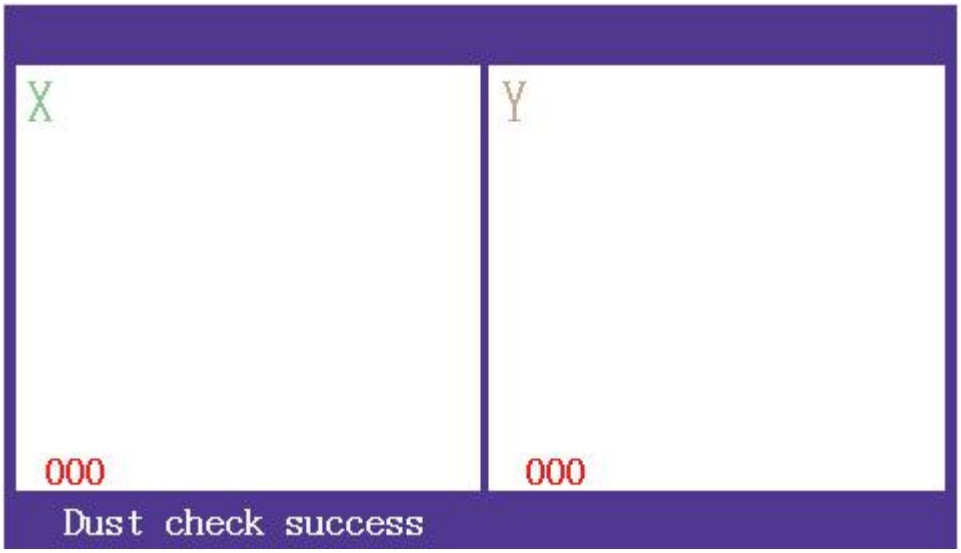
Setting Step（Modify current splicing procedure parameters）：

(1)Enter "System Debug" Menu.

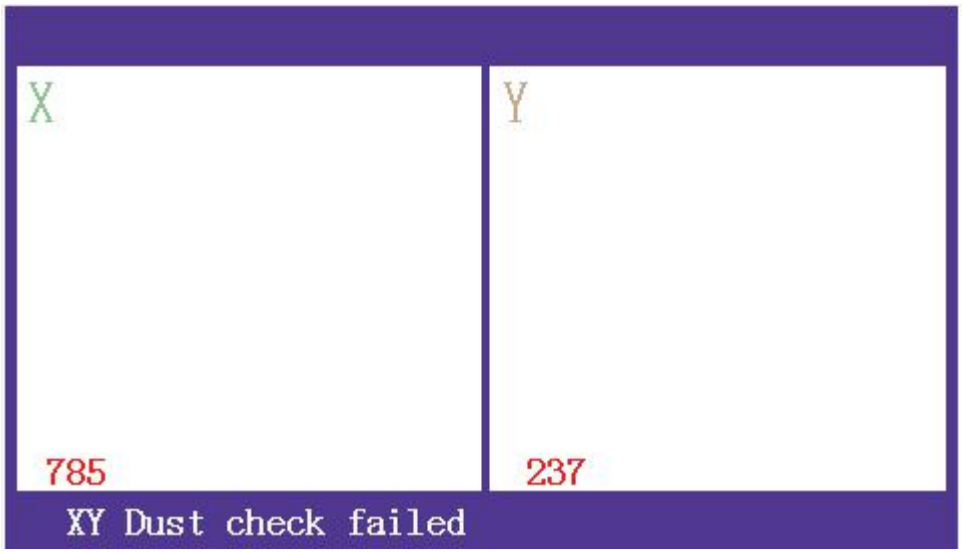
(2) Select “Dust Check”.



(3) Press “Menu” to enter and test the display area for blemishes. The normal display will be “Dust check success”.



(4) If display “XY Dust check failed”, clean up the dust in time please.



(5) Done

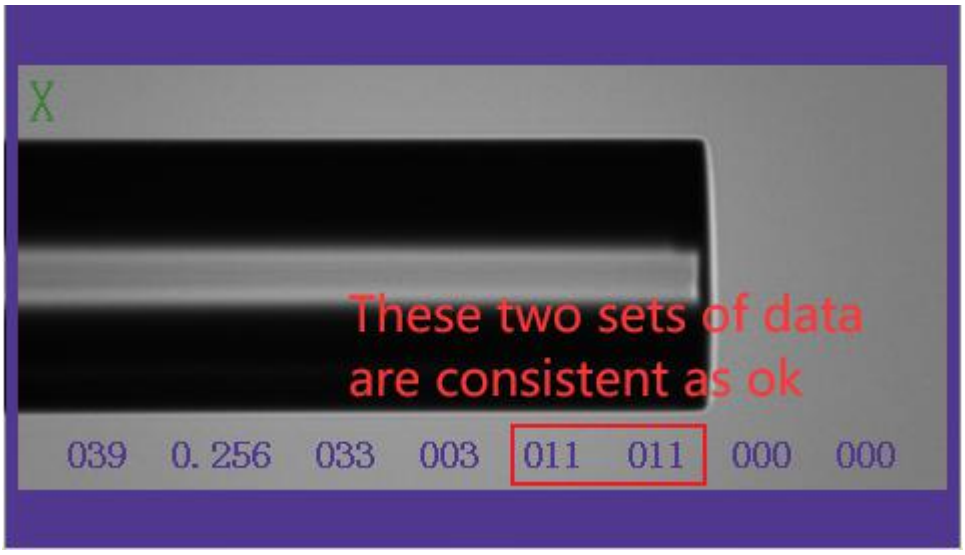
4.Functions

4.3. System Debug

4.3.7. Motor Move Test

Motor Move Test

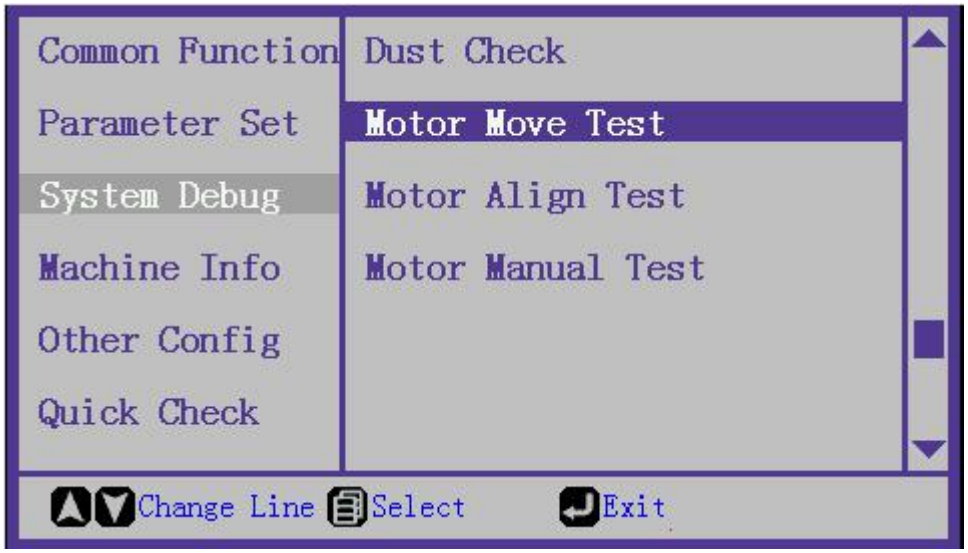
Function Introduction: For complete the automatic test of the motor propulsion.



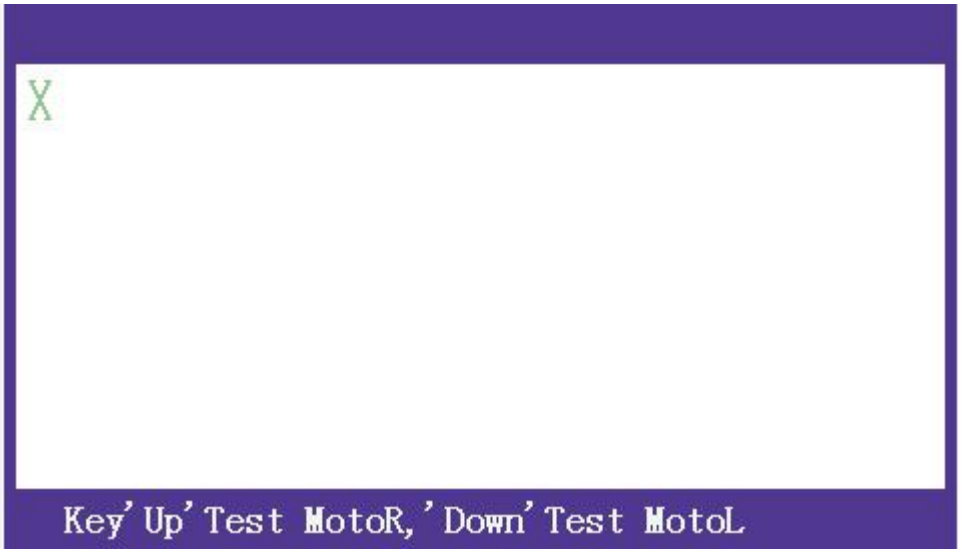
Test steps (left and right motor propulsion test) :

(1) Enter "System Debug" Menu.

(2) Select "Motor Move Test ".

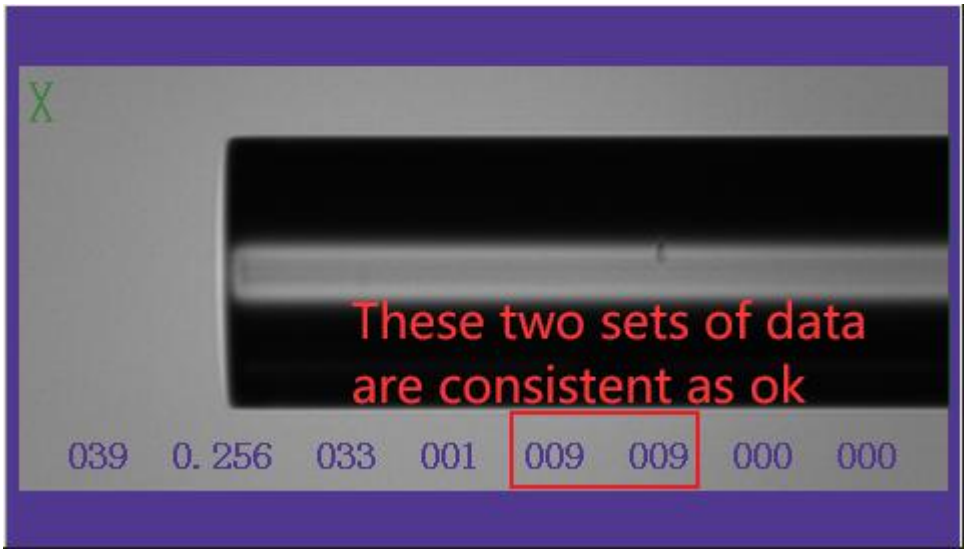


(3) Press “Menu ” to enter the menu.



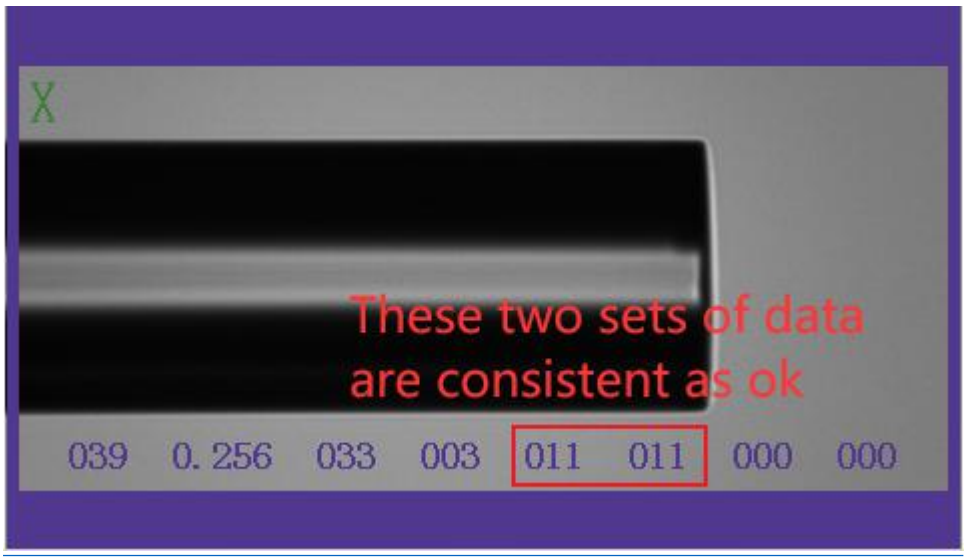
(4)Press “UP” to test the right motor.

(5) Press “Menu ” to continue.



(6) Press “Exit” to Exit, re-enter step (3) , press “DOWN”to test the left motor.

(7) Press "menu " to continue.



(8) Done

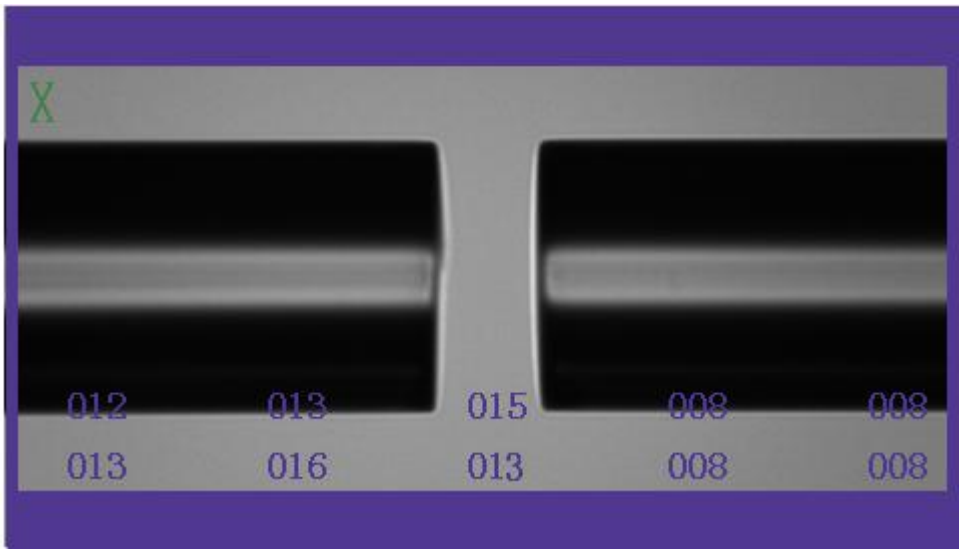
4.Functions

4.3. System Debug

4.3.8. Motor Align Test

Motor Align Test

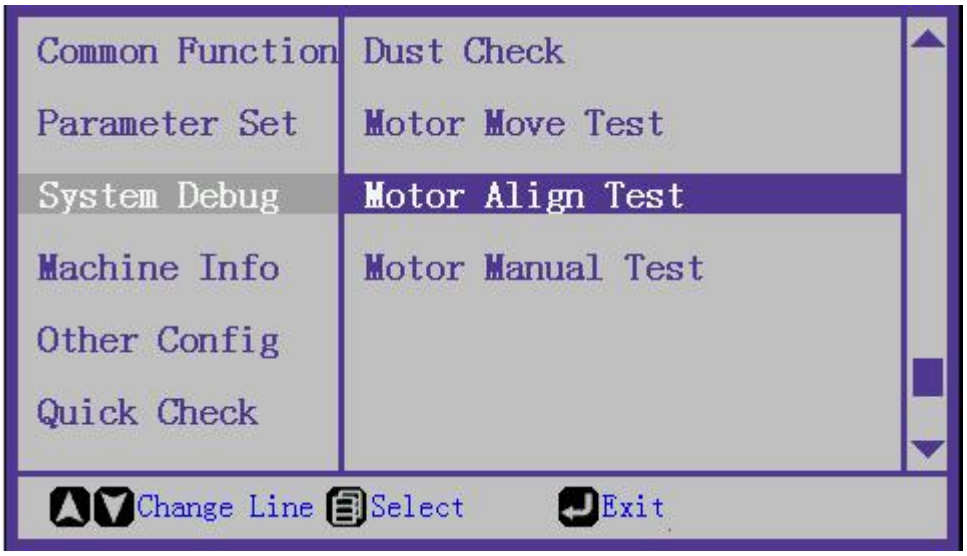
Function Introduction: For complete the automatic testing of the motor align.



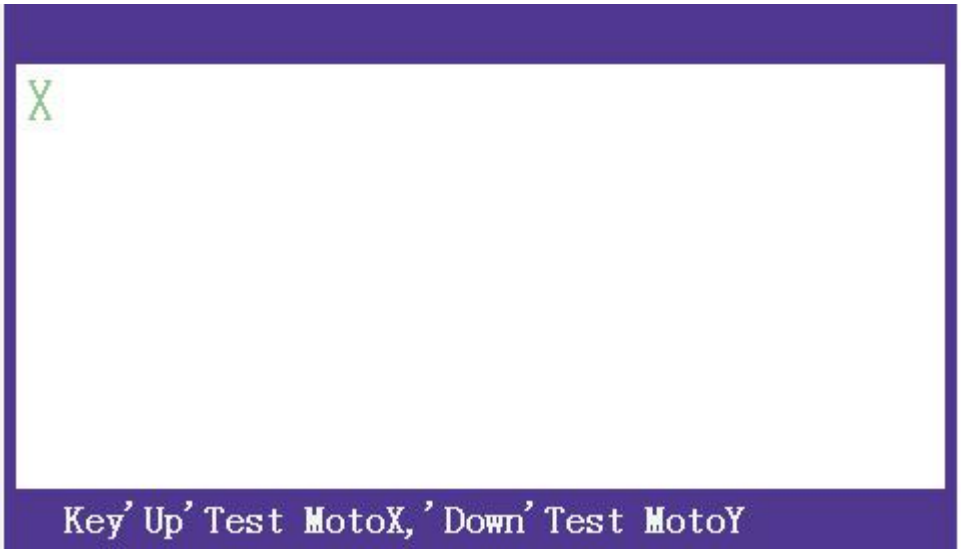
Test steps (X, Y motor Align test) :

(1) Enter "System Debug" menu.

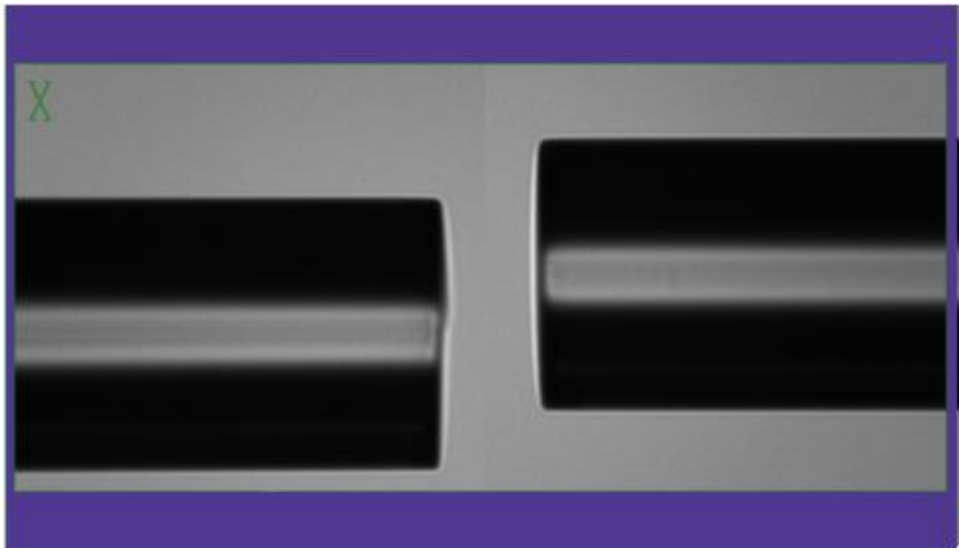
(2) Select “Motor Align Test”.



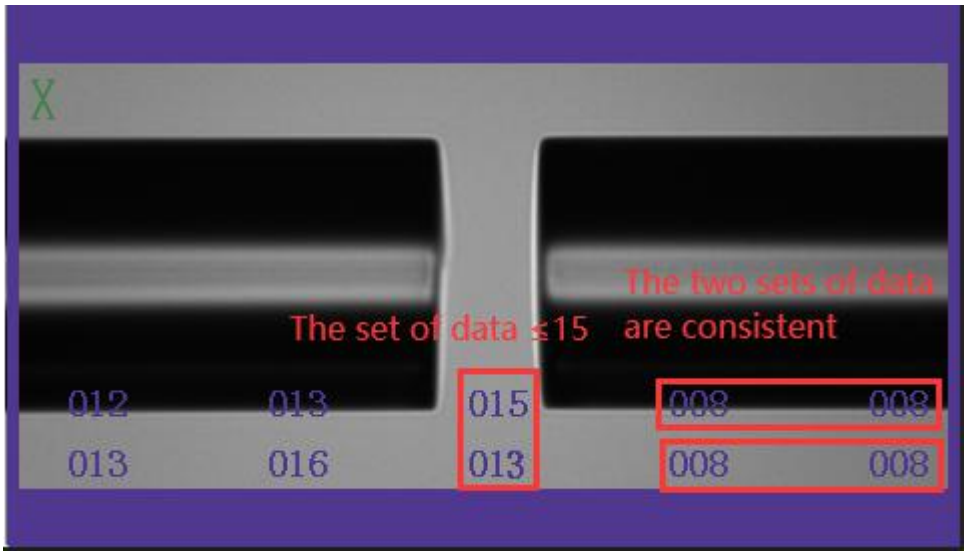
(3) Press “Menu  ” to enter the menu.



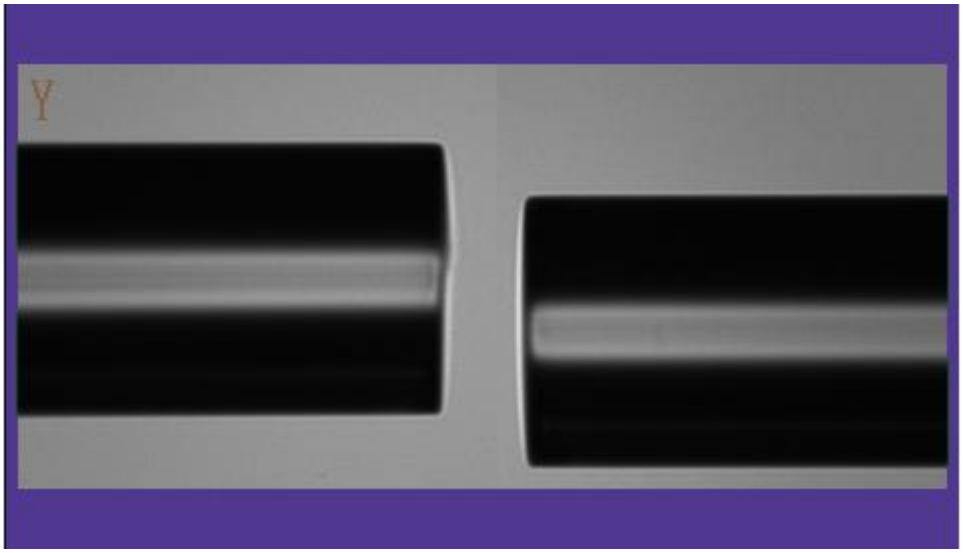
(4) Press the " up" to continue testing the x motor.



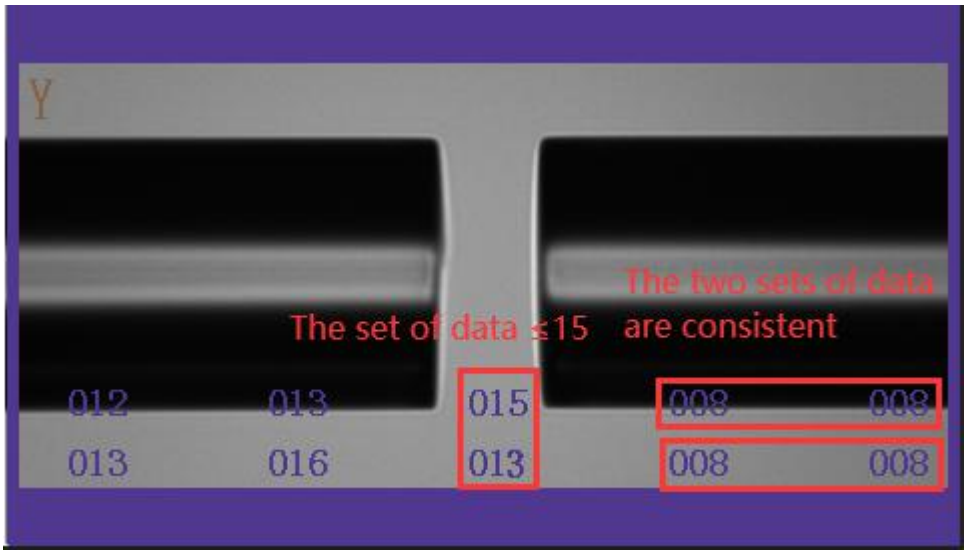
(5) The data as below is displayed after the motor align test of the x motor is completed.



(6) Press “Exit ” , re-enter step (3) , press the “Down” to test the Y motor.



(7) The data as below is displayed after the motor align test of the Y motor is completed.



(8) Done

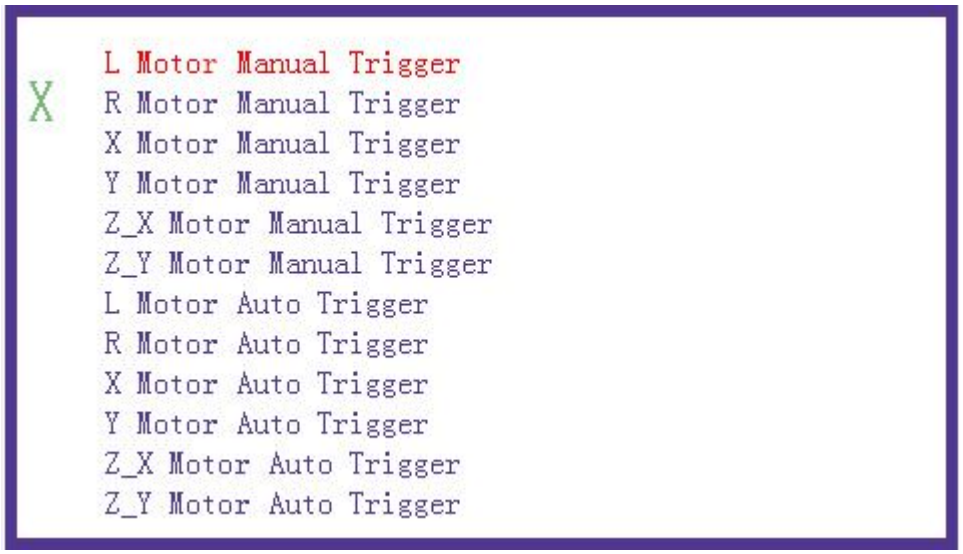
4.Functions

4.3. System Debug

4.3.9. Motor Manual Test

Motor Manual Test

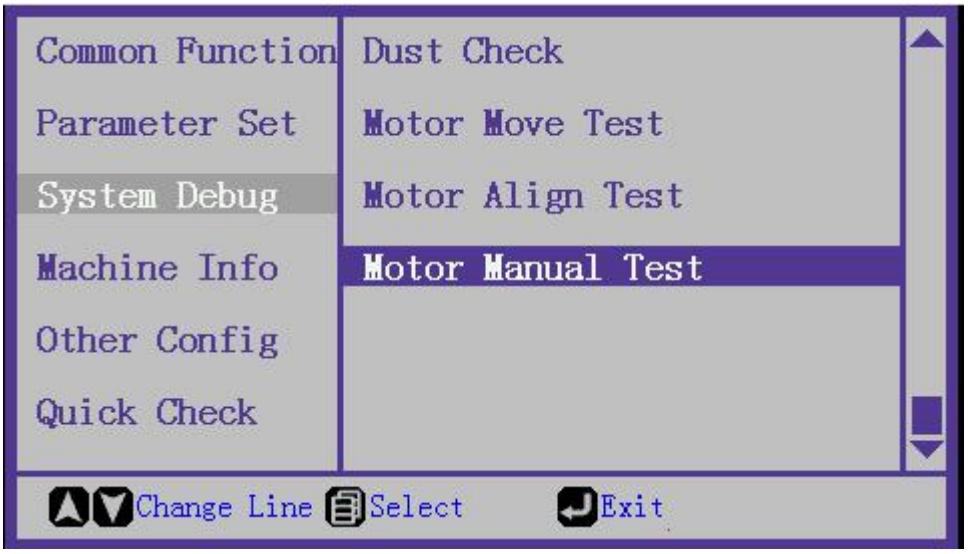
Function Introduction: For complete the manual test of the motor move and motor align.



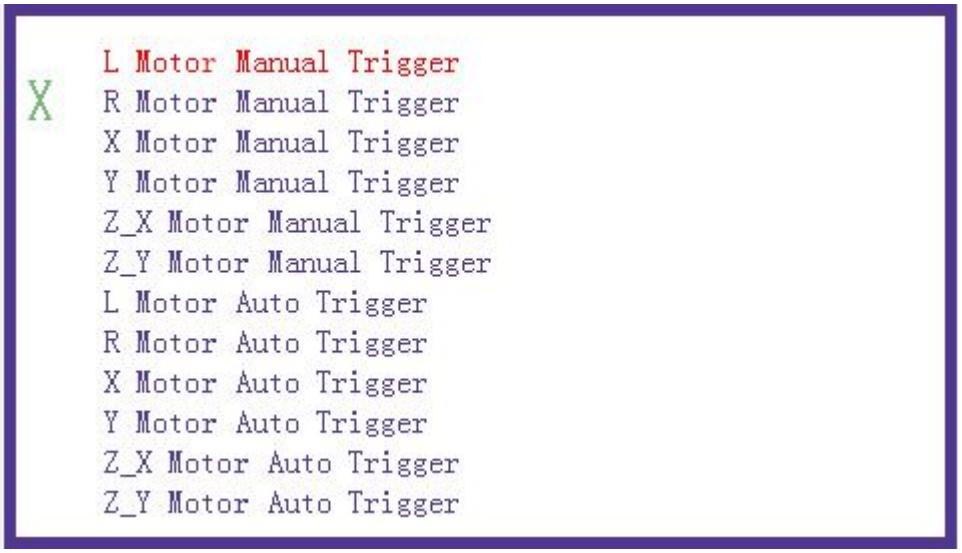
Test steps (X, Y motor adjustment test) :

(1) Enter "System Debug" menu.

(2) Select the “Motor Manual Test” column.



(3) Press the “Menu” to enter , press the “SET” to switch the commands that need to be triggered.



(4) Done

4.Functions

4.4. Machine Info

Machine Info

1. Machine SN

Function Introduction: Display the current device serial number.

2. Software Ver

Function Introduction: Display the device's current software version.

3. Firmware Ver

Function Introduction: Display the device's current firmware version.

4. Arc Times

Function Introduction: Display the current total arc times.

5. Arc Records

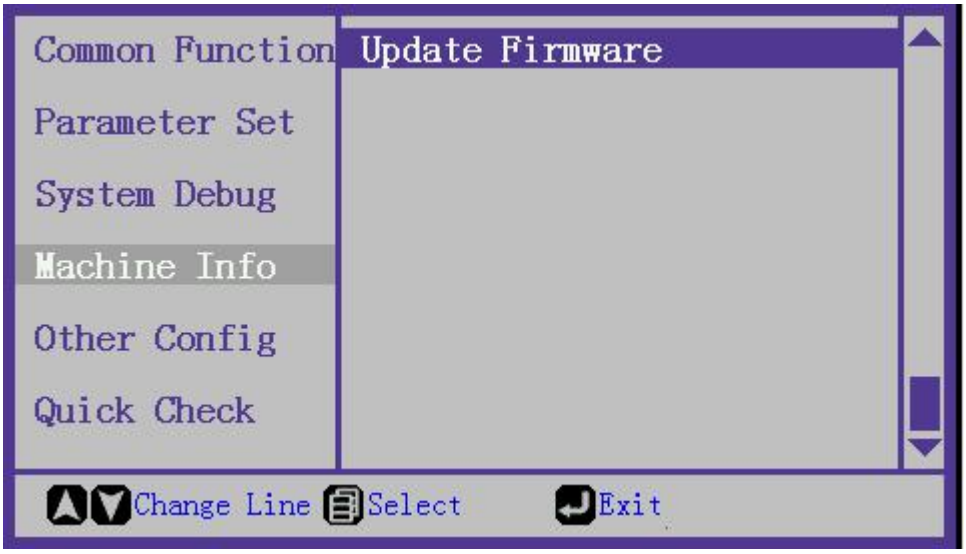
Function Introduction: View a detailed record of a single splicing.

6. Update Software

Function Introduction: For updating the software.

7. Update Firmware

Function Introduction: For updating firmware of the device. (Please operate under the guidance of the engineer to avoid damage to the equipment)



8. **Done**

4.Functions

4.4. Machine Info

4.4.1. View Record

View Record

Function Introduction: Viewing detailed splicer operation record.

(1) Enter "Machine Info" Menu.

(2) Select “Arc Records” and press the “Menu” to enter the Arc Records menu page.

(3) Select the “View Record” and press the “Menu” to enter the View Record menu page.

(4) Check record.

(5) Done

4.Functions

4.4. Machine Info

4.4.2. Cleae all records

Clear all records

Function Introduction: For clear all records.

Note: Clearing records cannot be restored, please do this with great care!

(1) Enter " Machine Info " Menu.

(2) Select " Arc Records " and press "Menu " to enter the machine info page.

(3) Select the "Clear ALL Records" and press the "Menu "to enter the Clear All Records menu page. (Clearing records cannot be restored, please do this with great care!)

(4) Done.

4.Functions

4.4. Machine Info

4.4.3. Upload　Record

Upload Record

Function Introduction: For upload record.

(1) Enter "Machine Info“ Menu.

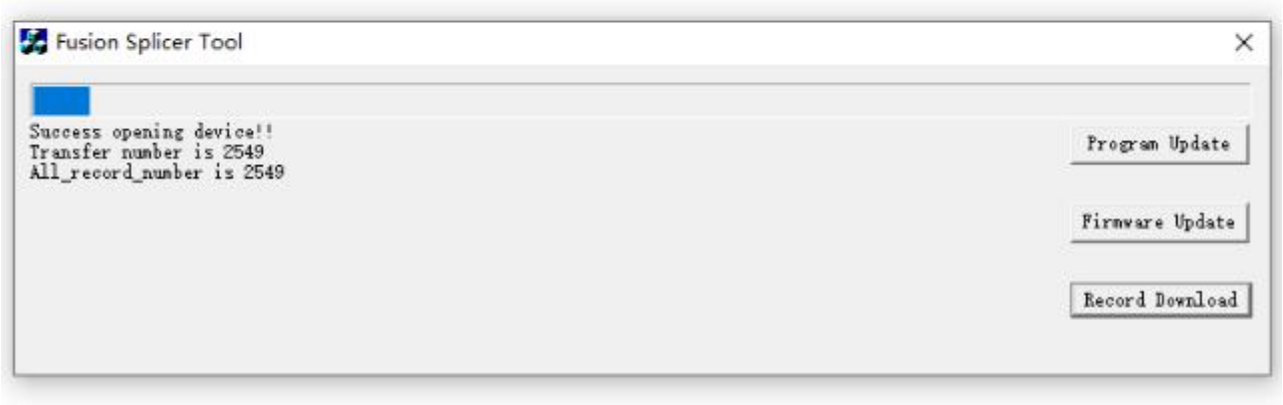
(2) Select the “Arc Records” and press the “Menu”　to enter the menu page.

(3)Select “Upload Record” and press “Menu” to enter the menu page, This starts saving the data.

(4) When the two red boxes show identical numbers the fusion date save is complete.

(5) Double click this program.

(6)Press “Record Download”, the data transmission is complete when the machine makes a beep sound.



(7)Storage and transmission data.

(8) Done.

4.Functions

4.4. Machine Info

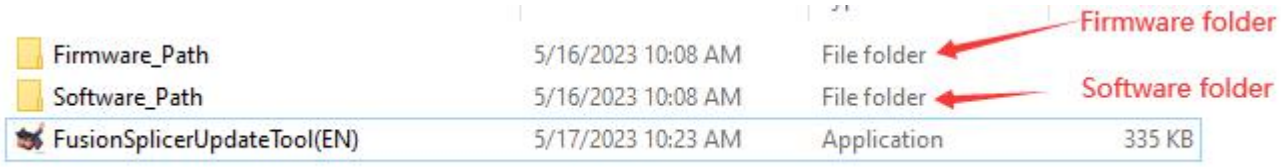
4.4.4. Update Software

Update Software

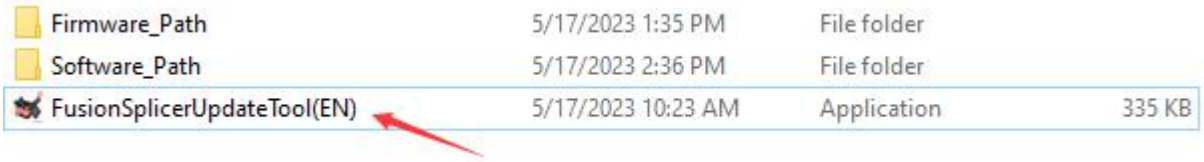
Function Introduction: For Update software. There are two ways to update software, as follows:

Method1:

Place the latest firmware and software programs in the corresponding folder, as shown in the following figure:



Open FusionSplicerUpdateTool(EN)



The update program shown as follow:

220KB

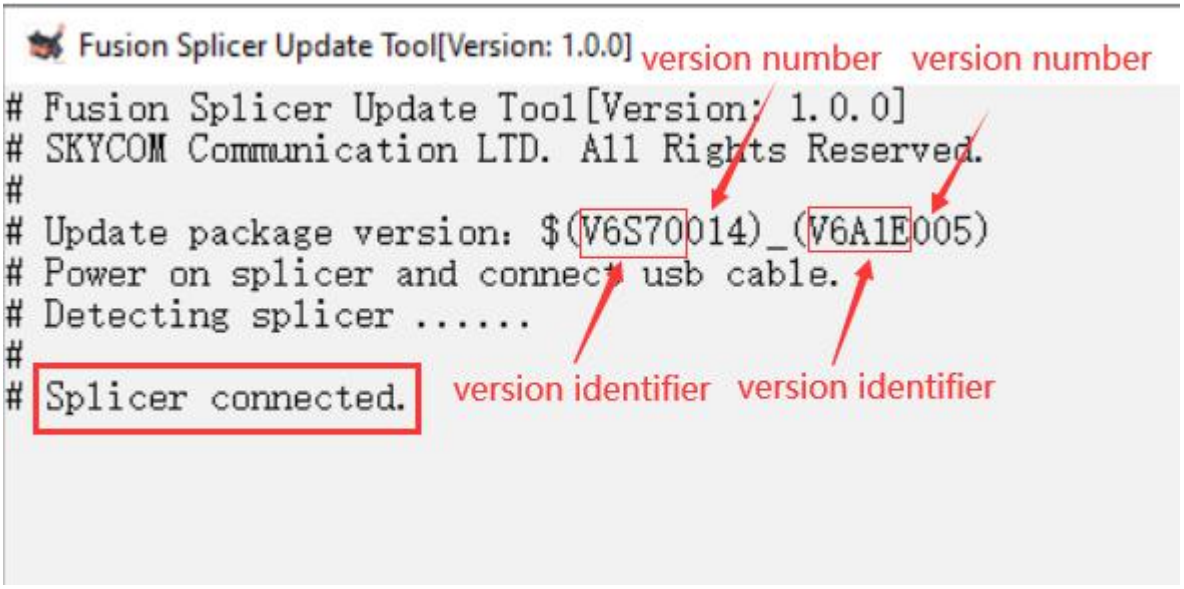
FusionSplicerUpdateTool(EN).zip

archive

3.Connect the USB interface of the fusion splicer to the computer using a USB cable, as shown in the following figure:

4.Press the power on button of the fusion splicer and wait for the successful connection between the fusion splicer and the computer:

（1）After successful connection, the computer will show the message as below: (The software version and firmware version are both 8 digits, with the first 5 digits being the version identifier and the last three digits being the version number)

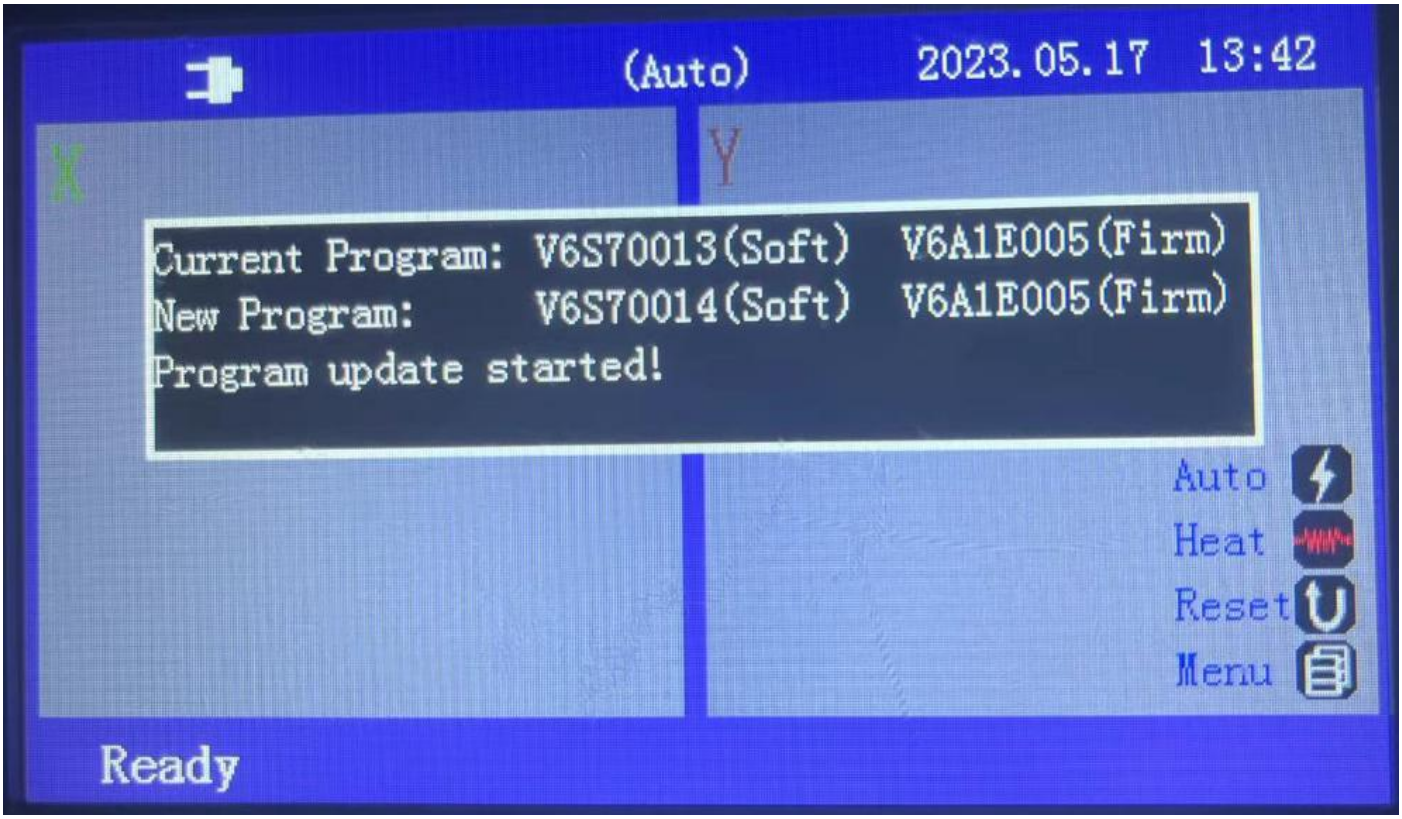


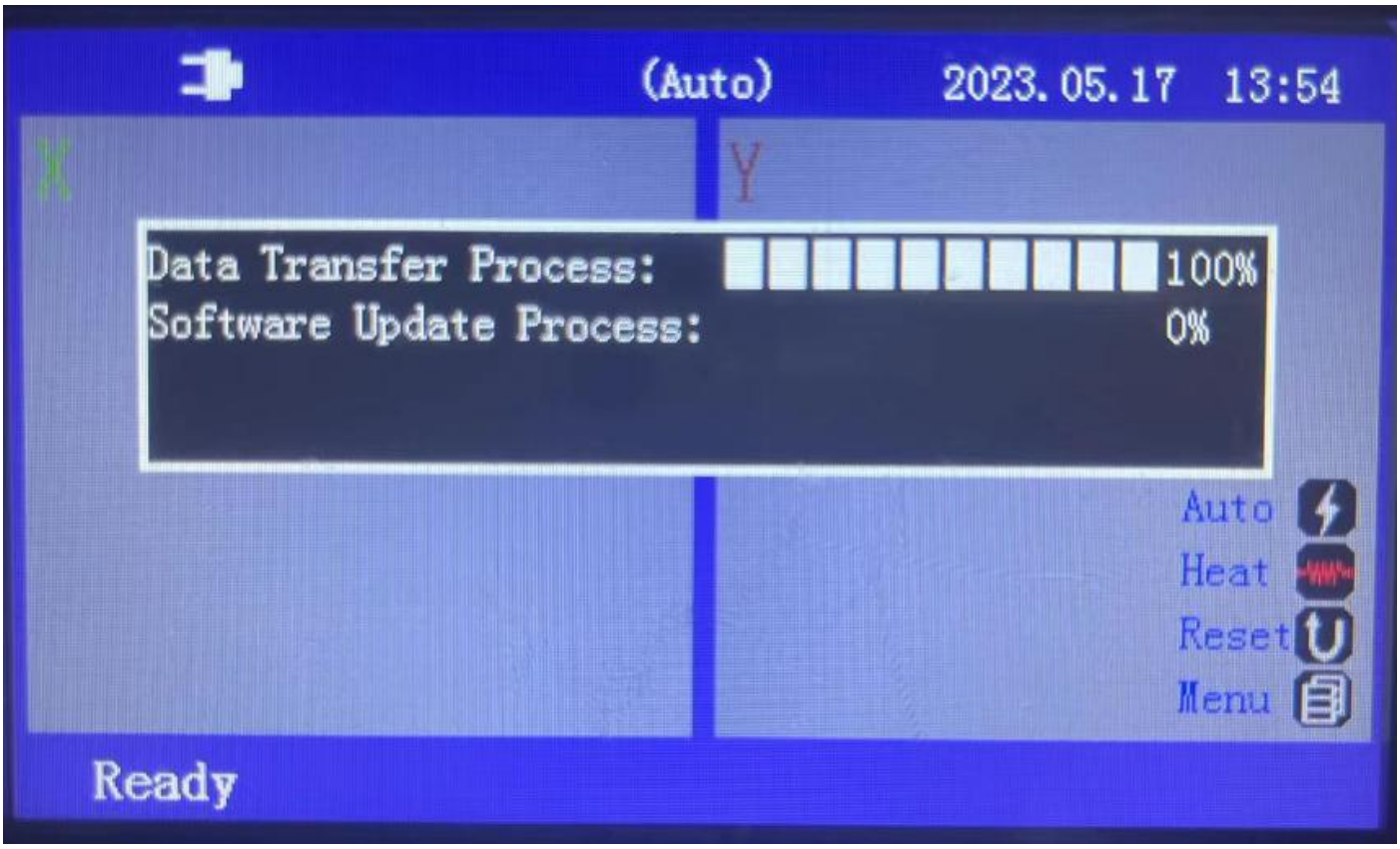
If the current software version number of the splicer machine matches the version number of the computer upgrade package, there is no need to update it. Disconnect the USB connection. The computer will display the following:

When the software version number of the splicer machine is different from the computer update version number, it will enter automatic update. The computer will display the following:

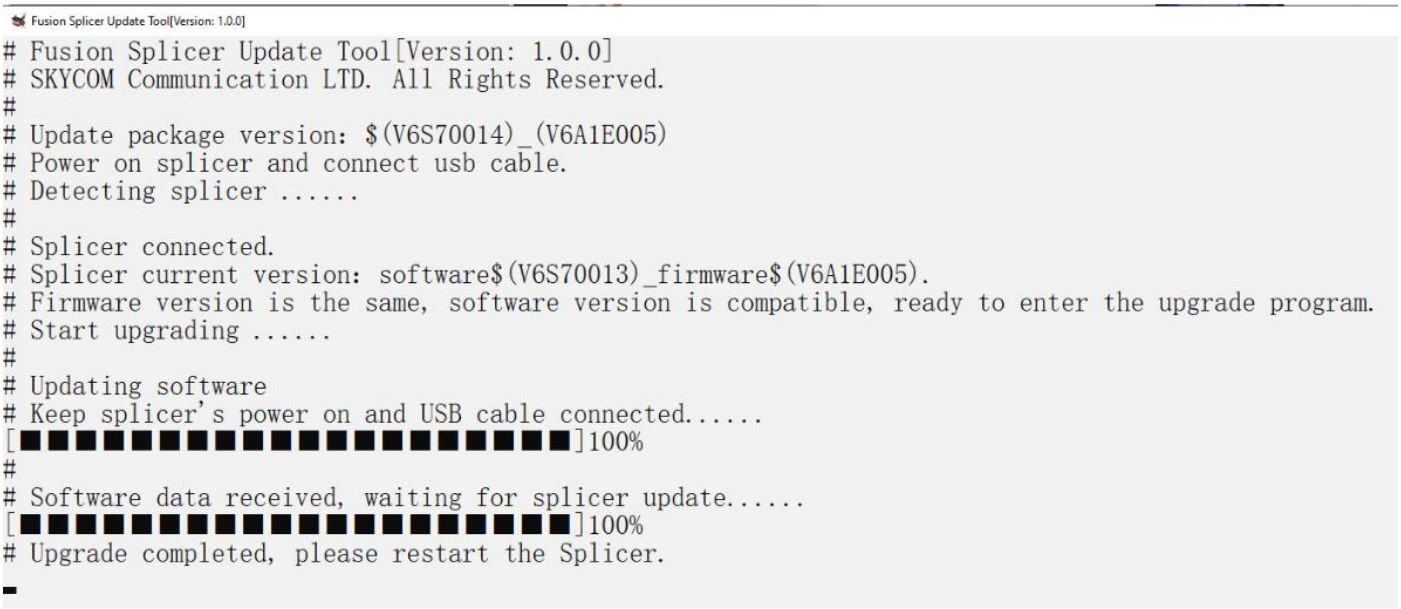
Fusion Splicer Update Tool[Version: 1.0.0]

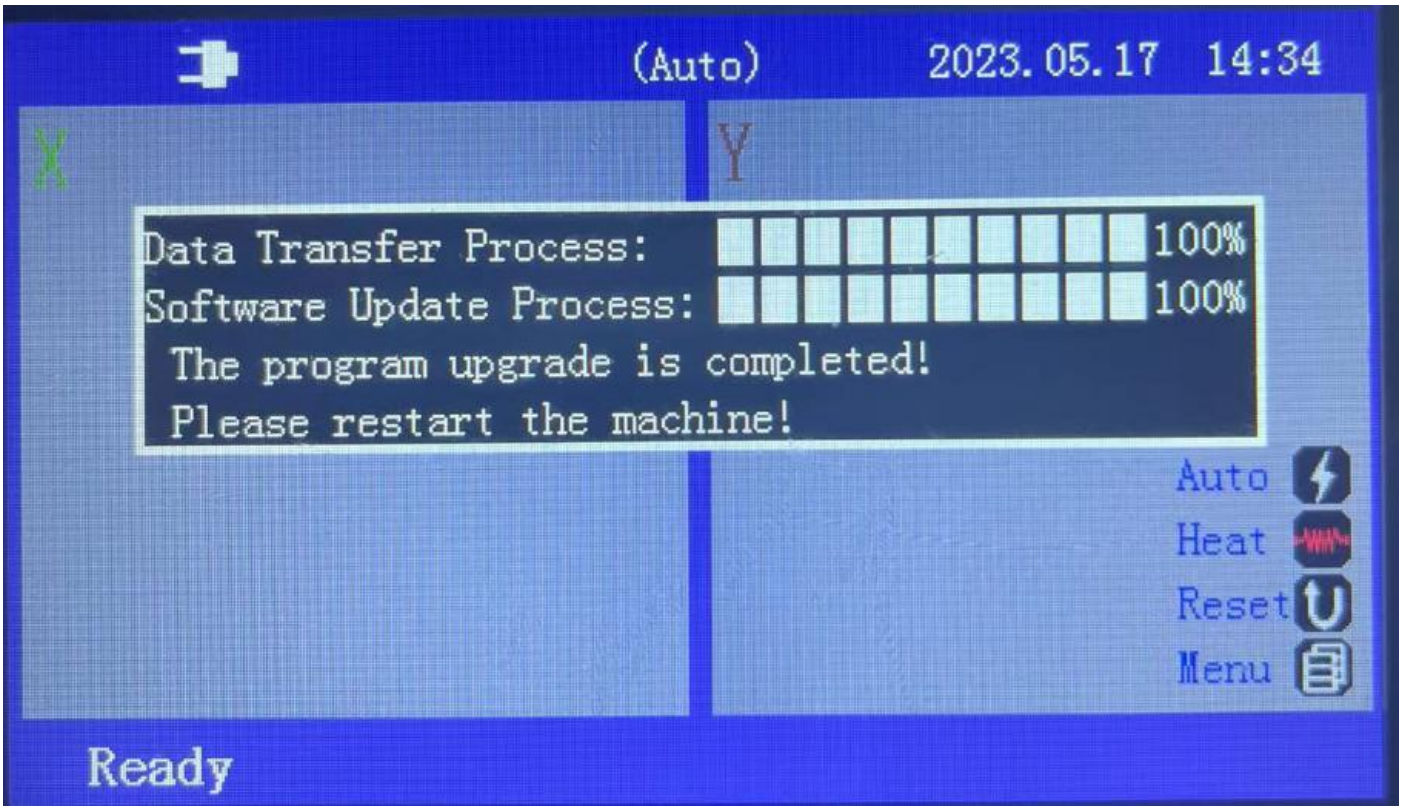
```
# Fusion Splicer Update Tool[Version: 1.0.0]
# SKYCOM Communication LTD. All Rights Reserved.
#
# Update package version: $(V6S70014)_(V6A1E005)
# Power on splicer and connect usb cable.
# Detecting splicer ......
#
# Splicer connected.
# Splicer current version: software$(V6S70013)_firmware$(V6A1E005).
# Firmware version is the same, software version is compatible, ready to enter the upgrade program.
# Start upgrading ......
#
# Updating software
# Keep splicer's power on and USB cable connected......
[■■■■■■■■■■■■■■■■■■■■■■■■■]100%
#
# Software data received, waiting for splicer update......
[■■■                                ]15%
```



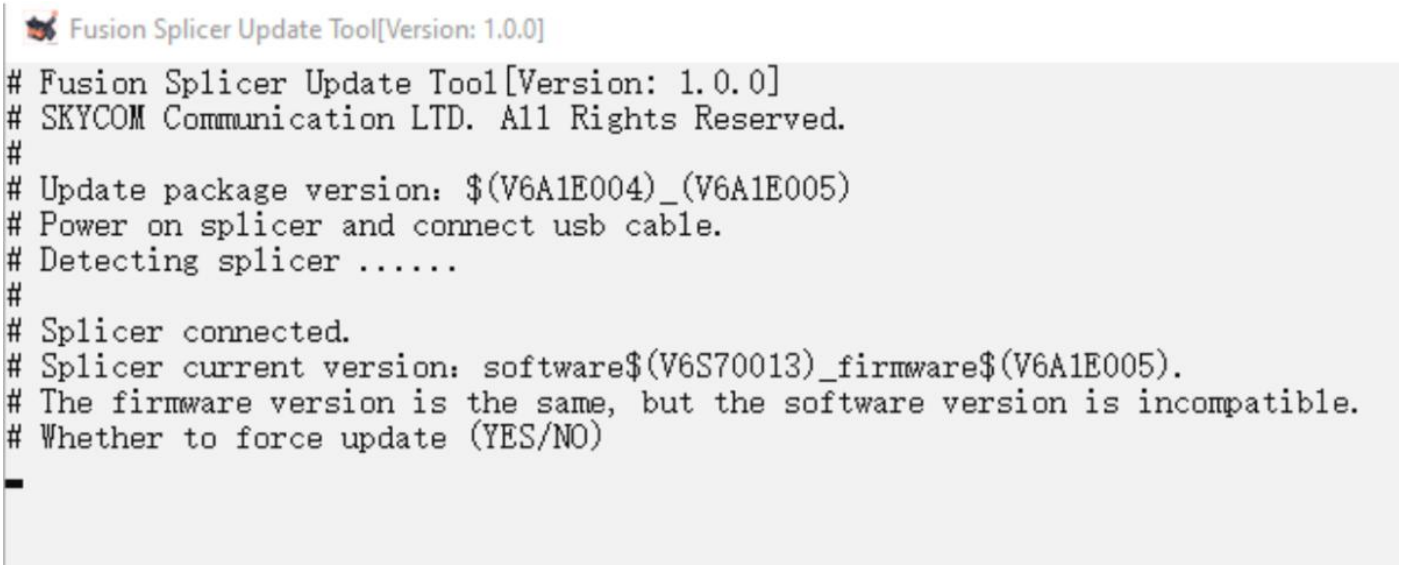


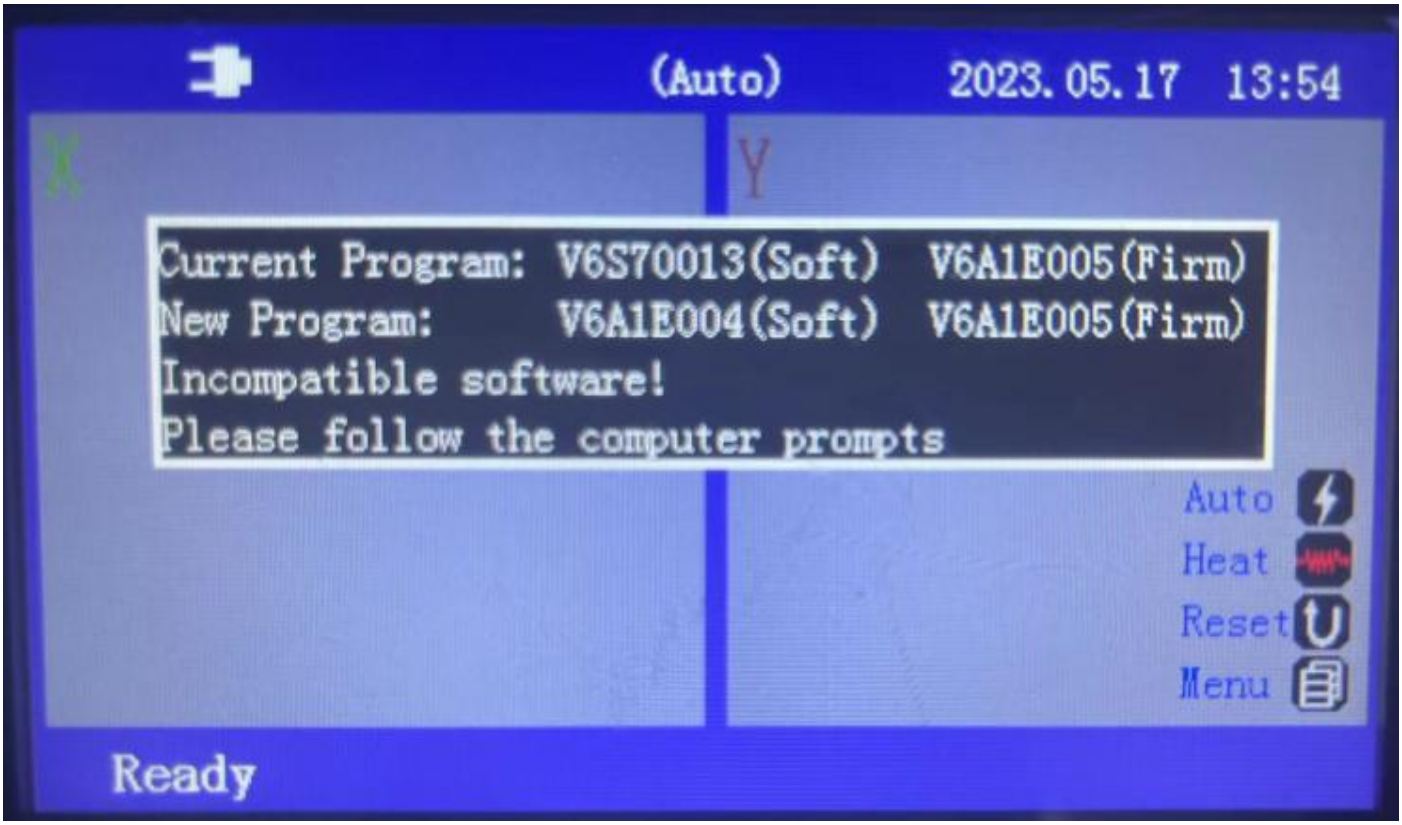
After the update is completed, both the splicer machine and the computer will prompt, please restart the splicer machine at this time. The prompt is as follows:



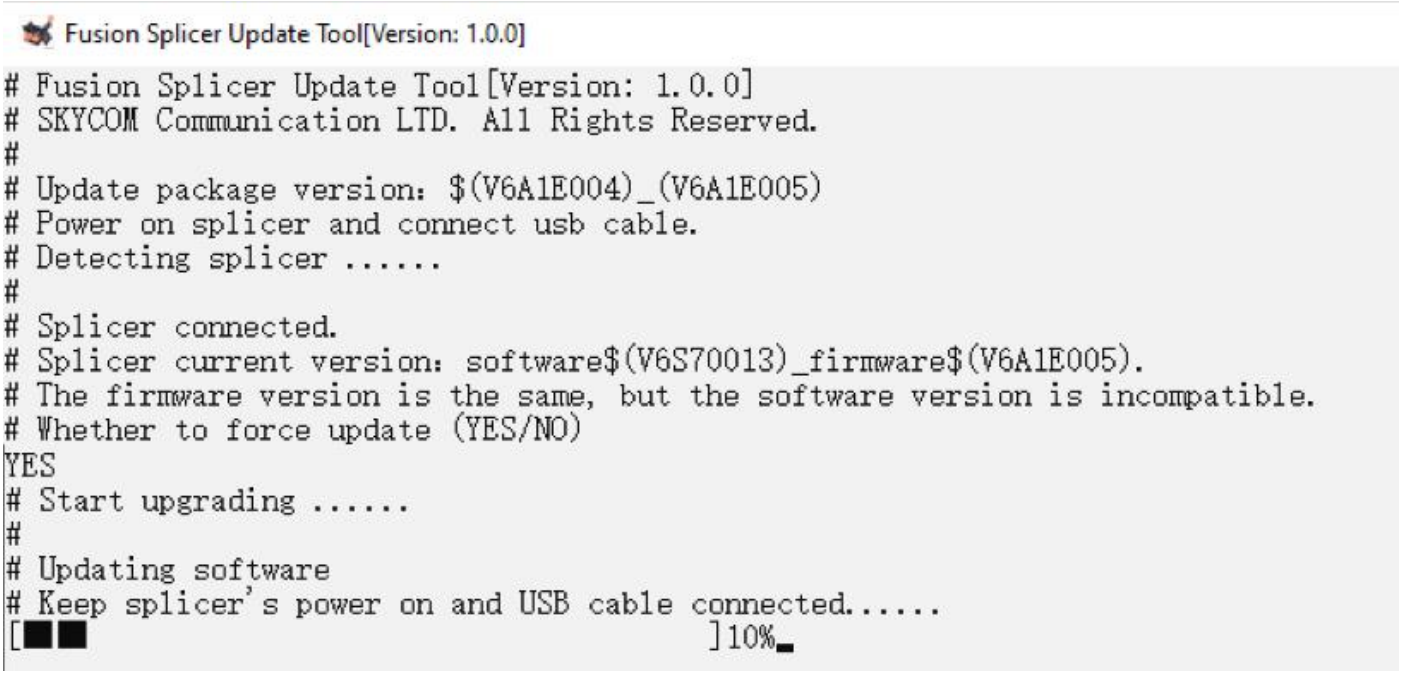


8.When the software version identification of the splicer machine is incompatible with the software version identification of the computer, please confirm if an update is needed. The prompt information is as follows:





（1）After confirming the need for update, please press the uppercase 'YES' in the upper computer interface, and press the 'Enter' key to start the automatic update program:

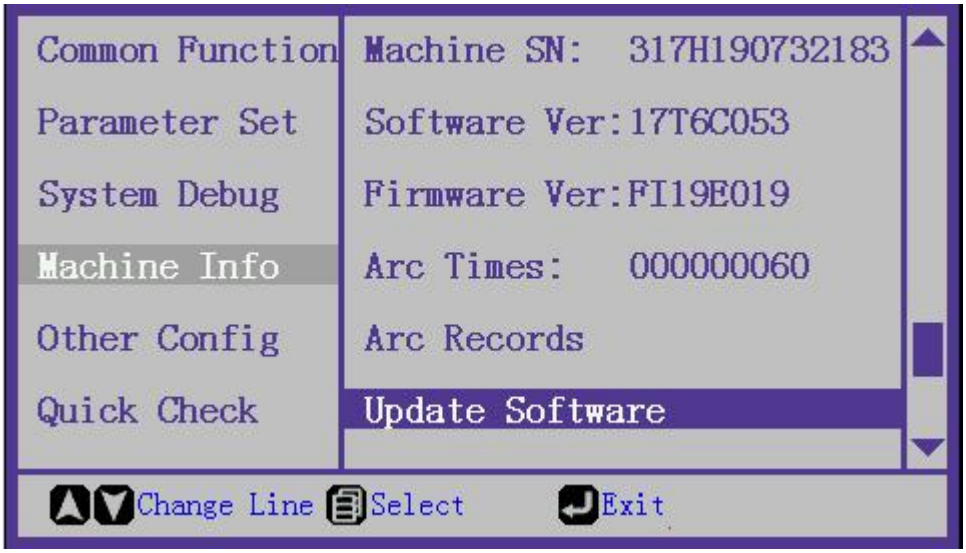


（2）If you do not want to update, please select uppercase 'NO', press the 'Enter'key, and then disconnect the USB connection between the splicer machine and the computer.

Method 2:

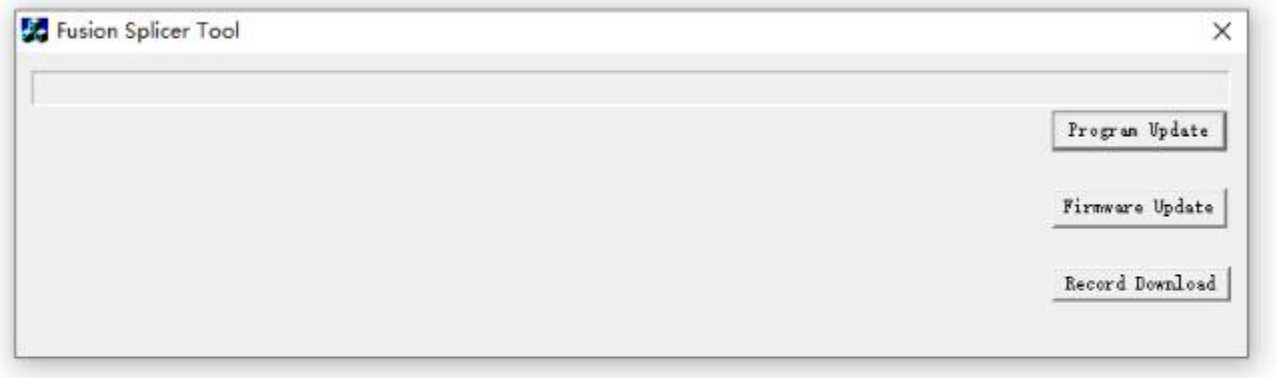
1.Enter"Machine Info“Menu.

2.Select the“ Update Software ”column and press the “Menu ” to enter the menu page.



3. Double click this program.

4.Press “Program Update”.



5.Done

4.Functions

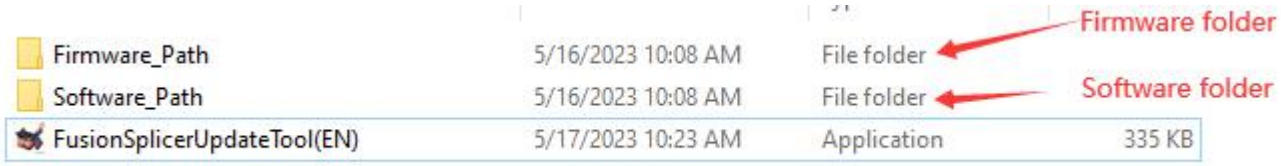
4.4. Machine Info

4.4.5. Update　Firmware

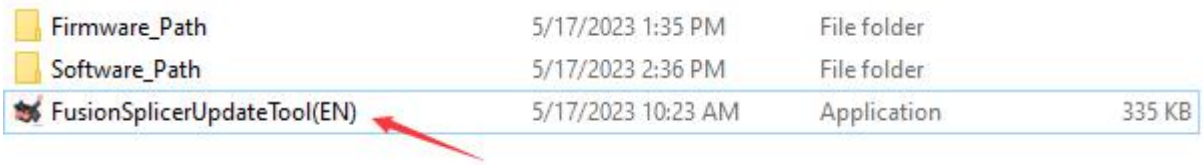
Update Firmware
Function Introduction: For Update Firmware.

Method 1:

1.Place the latest firmware and software programs in the corresponding folder, as shown in the following figure:



2.Open the FusionSplicerUpdateTool(EN)



The update program shown as follow:

220KB

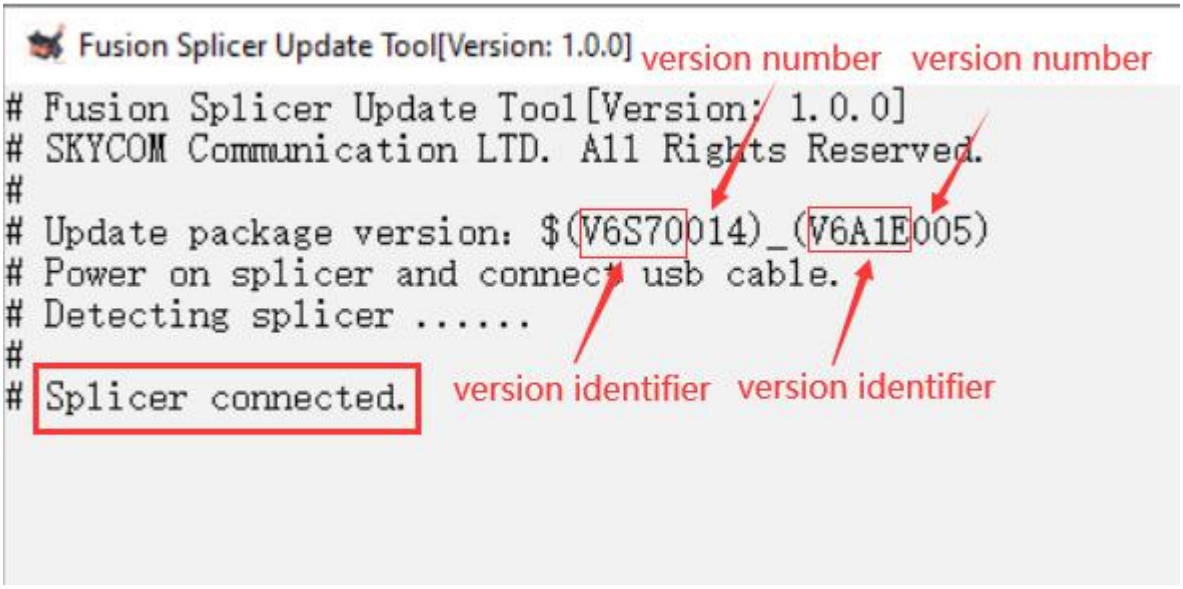
FusionSplicerUpdateTool(EN).zip

archive

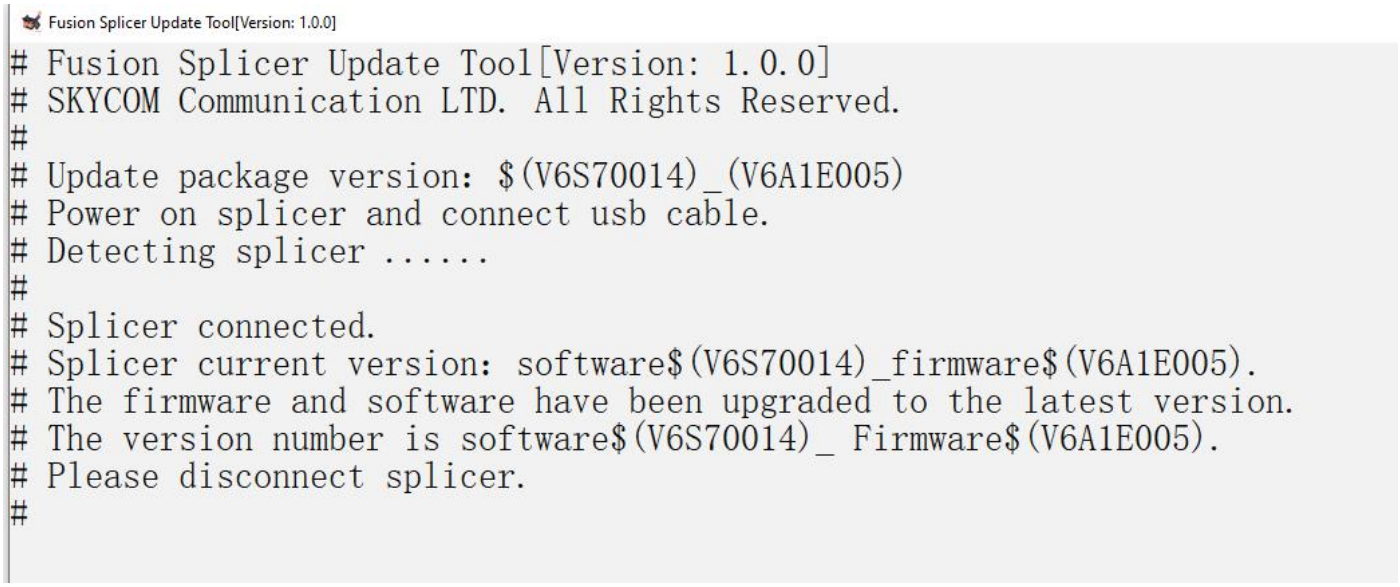
3.Connect the USB interface of the fusion splicer to the computer using a USB cable, as shown in the following figure:

4.Press the power on button of the splicer machine and wait for the successful connection between the splicer machine and the computer:

（1）After successful connection, the computer interface will display the following prompt message: (The software version and firmware version are both 8 digits, with the first 5 digits being the version identifier and the last three digits being the version number)



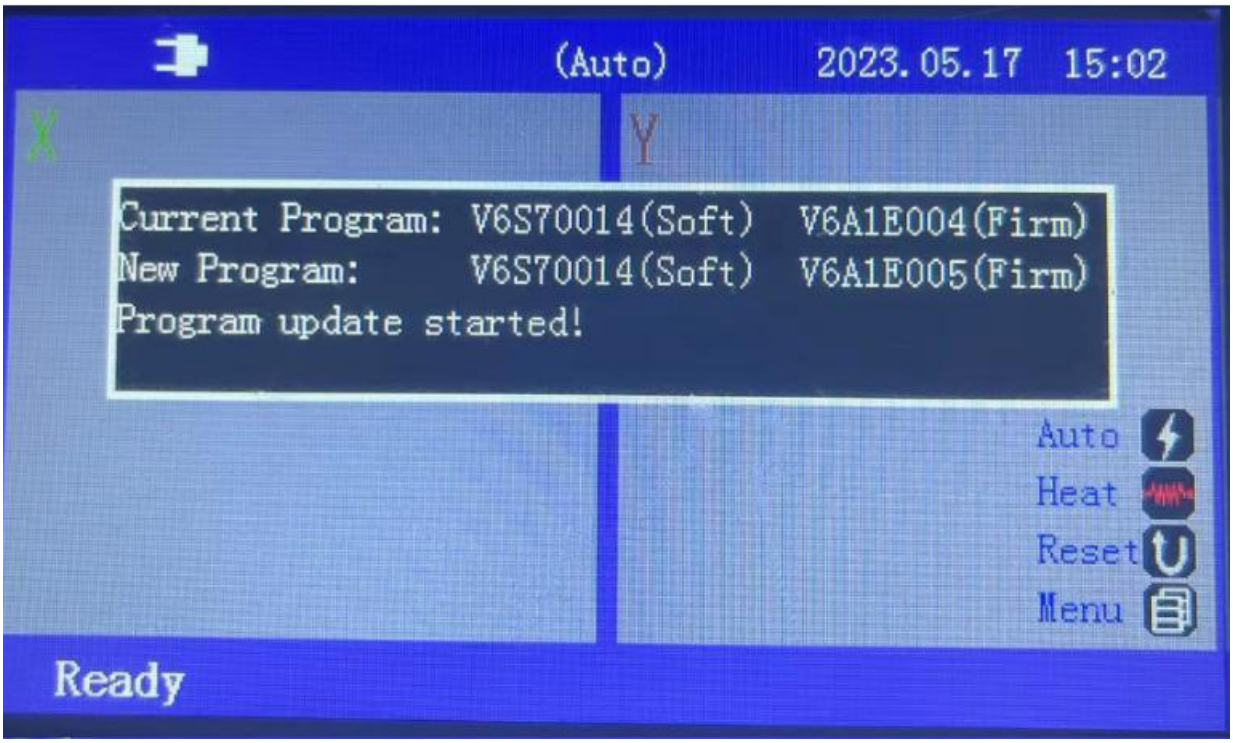
5.If the current firmware version number and software version number of the splicer machine matches the version number of the computer upgrade package, there is no need to update. Disconnect the USB connection. The computer will display the following prompt:

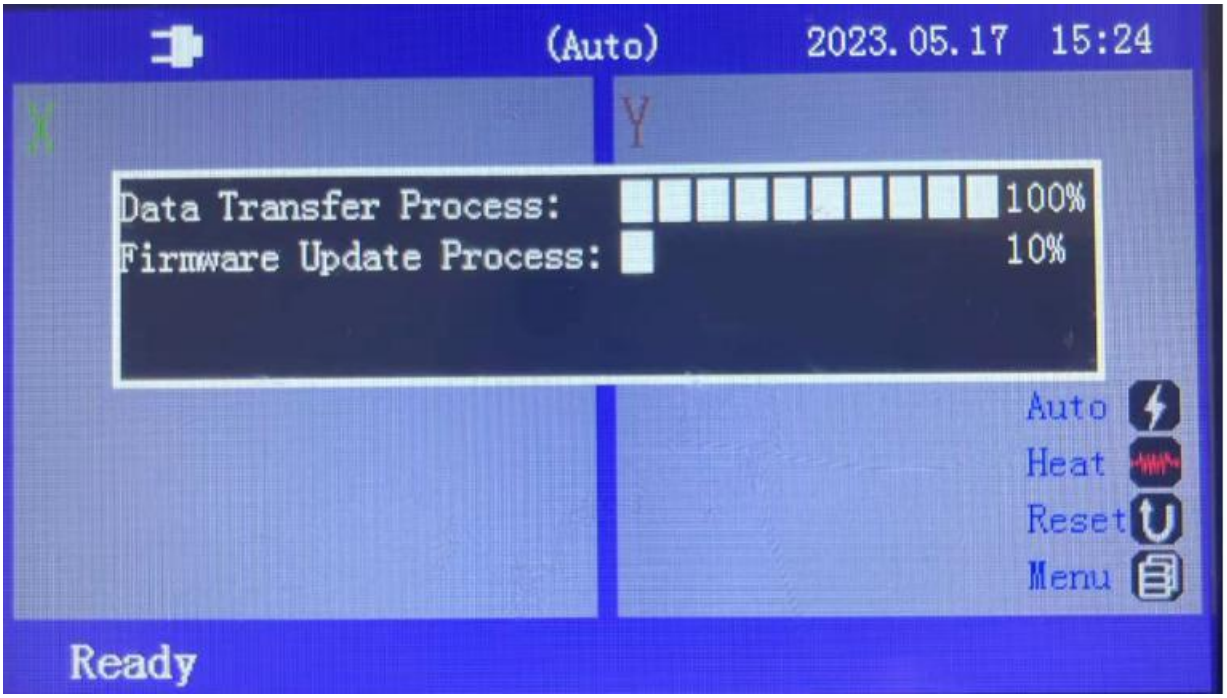


6.When the firmware version number of the splicer machine is different from the computer update version number, it will enter automatic update. The specific prompts are shown in the following figure:

Fusion Splicer Update Tool[Version: 1.0.0]

```
# Fusion Splicer Update Tool[Version: 1.0.0]
# SKYCOM Communication LTD. All Rights Reserved.
#
# Update package version: $(V6S70014)_(V6A1E005)
# Power on splicer and connect usb cable.
# Detecting splicer ......
#
# Splicer connected.
# Splicer current version: software$(V6S70014)_firmware$(V6A1E004).
# Software version is the same, firmware version is compatible, ready to enter the upgrade program.
# Start upgrading ......
#
# Updating firmware
# Keep splicer's power on and USB cable connected......
[■■■■■■■                              ]35%
```

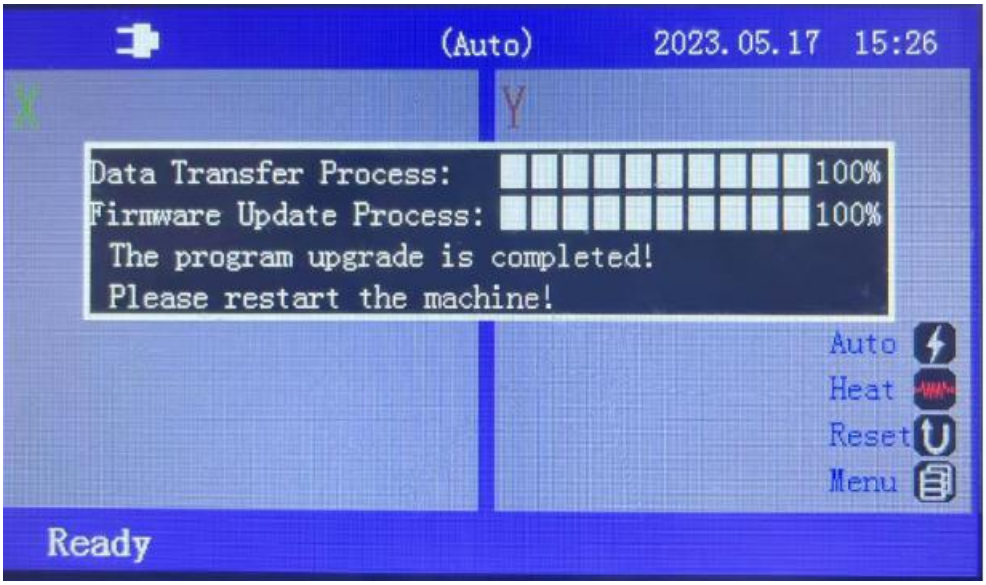




7.After the update is completed, both the splicer machine and the computer will prompt. Please restart the splicer machine at this time. The prompt is as follows:

Fusion Splicer Update Tool[Version: 1.0.0]

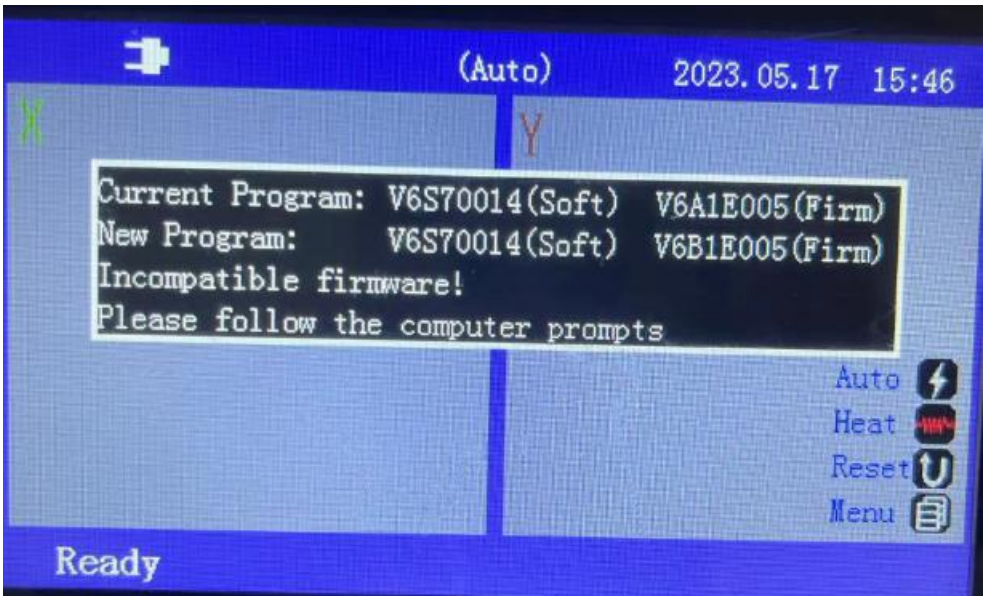
```
# Fusion Splicer Update Tool[Version: 1.0.0]
# SKYCOM Communication LTD. All Rights Reserved.
#
# Update package version: $(V6S70014)_(V6A1E005)
# Power on splicer and connect usb cable.
# Detecting splicer ......
#
# Splicer connected.
# Splicer current version: software$(V6S70014)_firmware$(V6A1E004).
# Software version is the same, firmware version is compatible, ready to enter the upgrade program.
# Start upgrading ......
#
# Updating firmware
# Keep splicer's power on and USB cable connected......
[■■■■■■■■■■■■■■■■■■■■■■■■]100%
#
# Firmware data received, waiting for splicer update......
[■■■■■■■■■■■■■■■■■■■■■■■■]100%
# Upgrade completed, please restart the Splicer.
```



8. When the firmware version identification of the splicer machine is incompatible with the firmware version identification of the computer, please confirm if an update is needed. The prompt information is as follows:

Fusion Splicer Update Tool[Version: 1.0.0]

```
# Fusion Splicer Update Tool[Version: 1.0.0]
# SKYCOM Communication LTD. All Rights Reserved.
#
# Update package version: $(V6S70014)_(V6B1E005)
# Power on splicer and connect usb cable.
# Detecting splicer ......
#
# Splicer connected.
# Splicer current version: software$(V6S70014)_firmware$(V6A1E005).
# The software version is the same, but the firmware version is incompatible.
# Whether to force update (YES/NO).
```



(1) After confirming the need for update, please press the uppercase 'YES' in the upper computer interface, and press the 'Enter 'key to enter the automatic update program:

Fusion Splicer Update Tool[Version: 1.0.0]

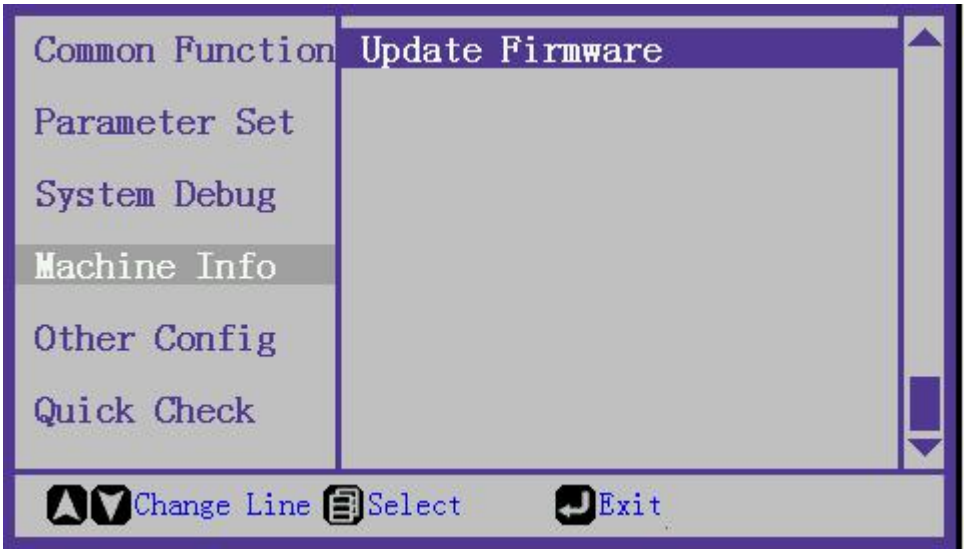
```
# Fusion Splicer Update Tool[Version: 1.0.0]
# SKYCOM Communication LTD. All Rights Reserved.
#
# Update package version: $(V6S70014)_(V6B1E005)
# Power on splicer and connect usb cable.
# Detecting splicer ......
#
# Splicer connected.
# Splicer current version: software$(V6S70014)_firmware$(V6A1E005).
# The software version is the same, but the firmware version is incompatible.
# Whether to force update (YES/NO).
YES
# Start upgrading ......
#
# Updating firmware
# Keep splicer's power on and USB cable connected......
[■■■                                    ]15%
```

(2) If you do not want to update, please enter the uppercase 'NO' and press the' Enter 'key, then disconnect the USB connection between the splicer machine and the computer.

Method 2:

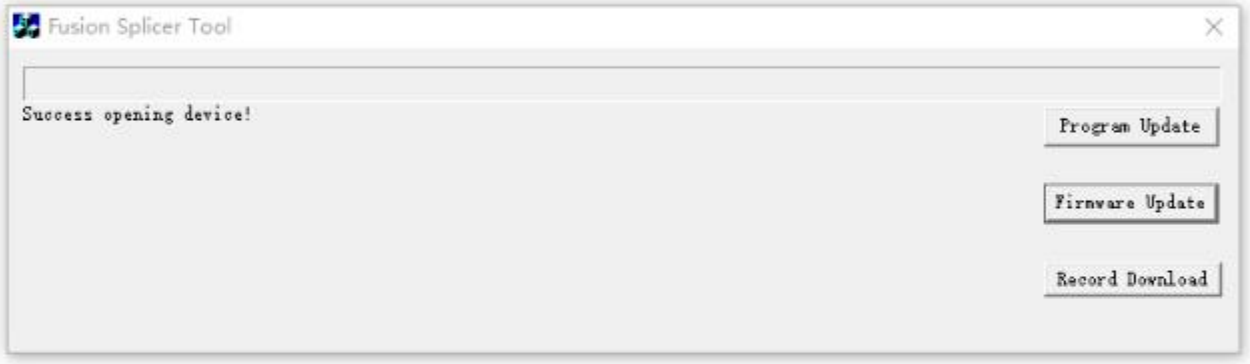
1.Enter"Machine Info“Menu.

2.Select the“ Update Firmware ”column and press the “Menu ” to enter the menu page.



3. Double click this program.

4.Press “Firmware Update”.



5. Done

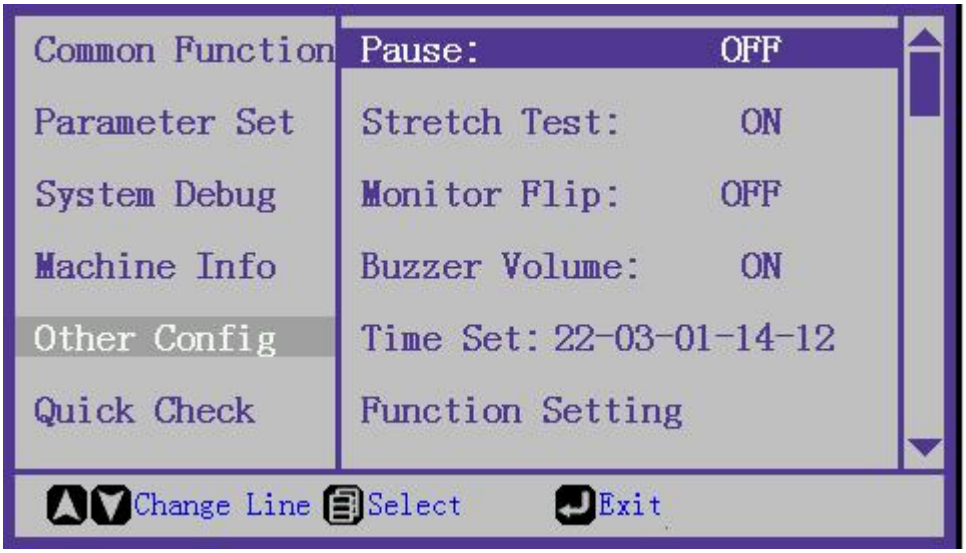
4.Functions

4.5. Other Config

Other Config

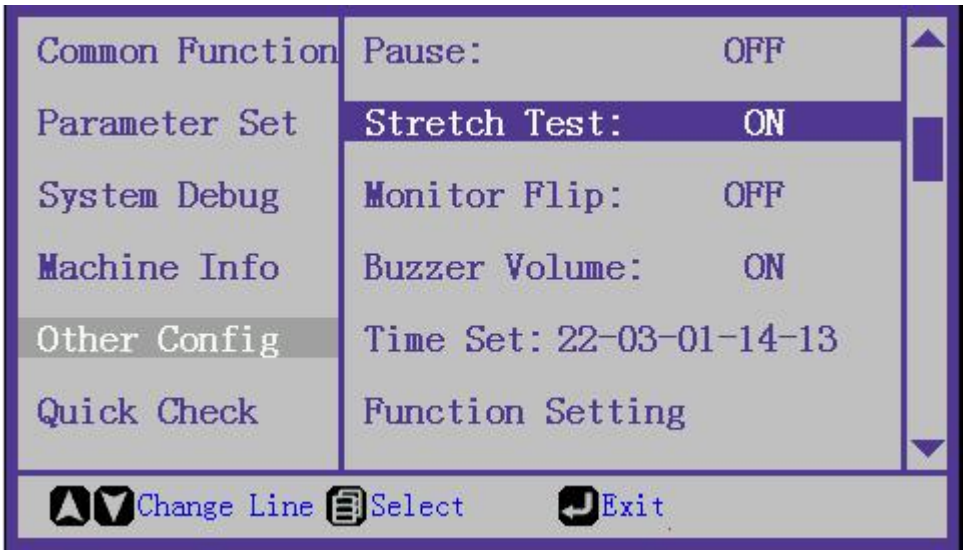
（1） Pause Setting

Function Introduction: For turning on or off the pause function after splicing alignment is completed. (Default: OFF)



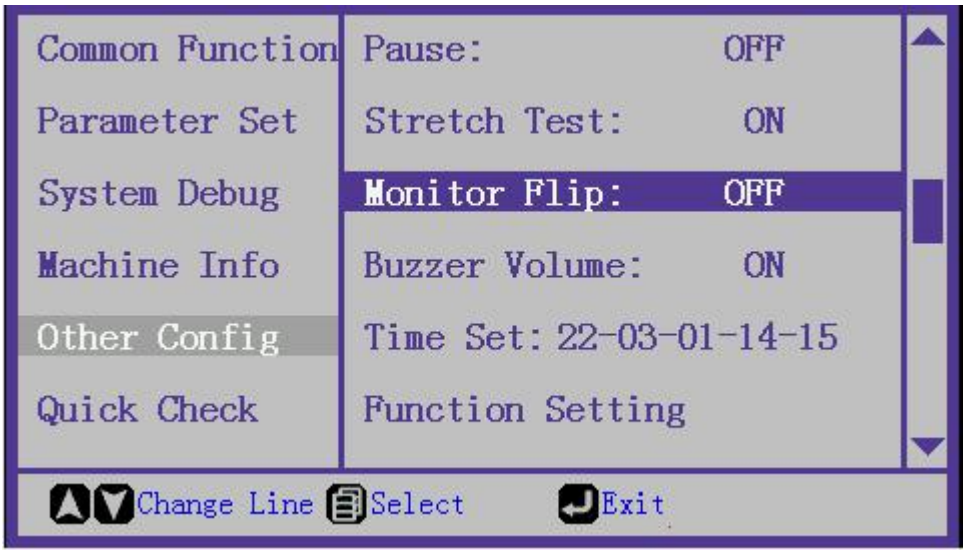
（2） Stretch Test

Function Introduction: For opening or closing the function of stretch test after splicing . (Default: ON)



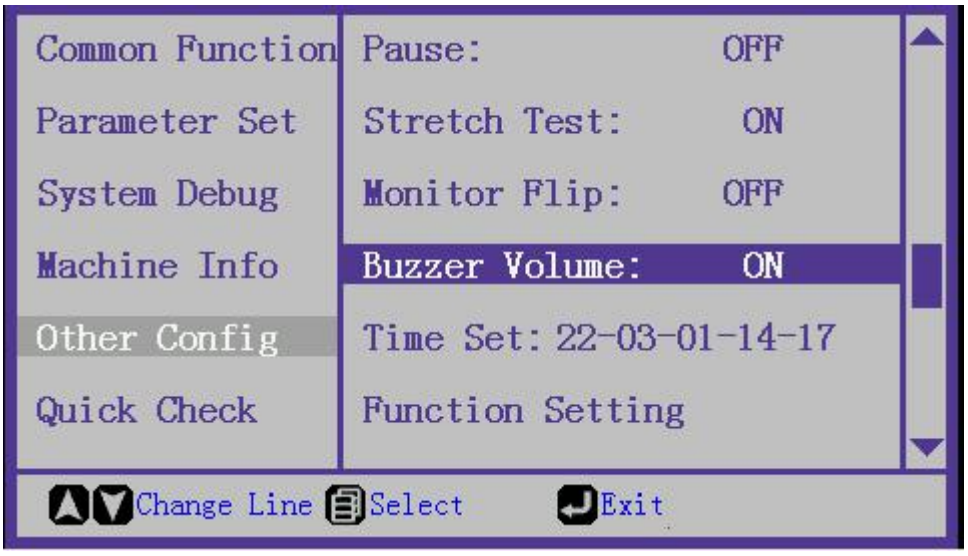
(3) Monitor Flip

Function Introduction: Use for turning on or off the monitor flip. (Default: OFF)



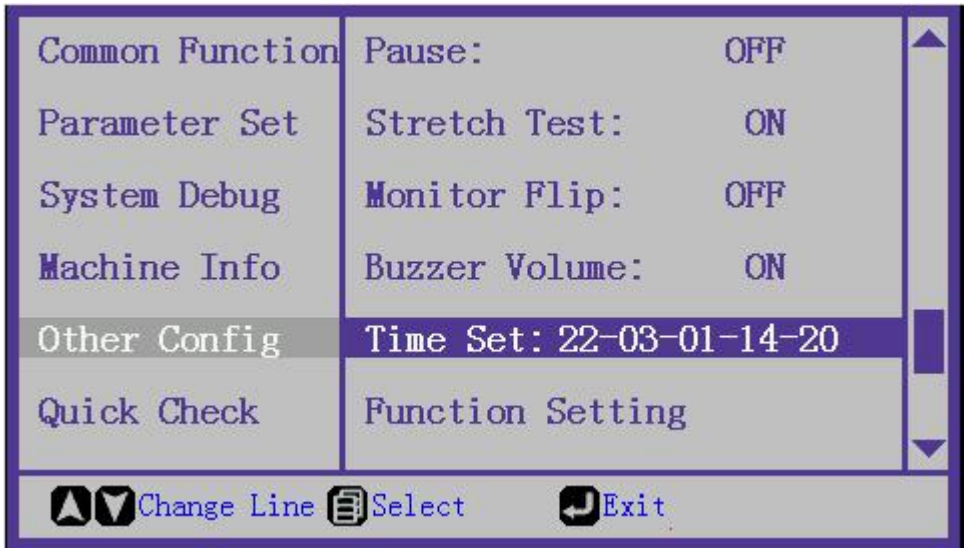
(4) Buzzer Volume

Function Introduction: For turning on or off the buzzer volume. (Default ON)



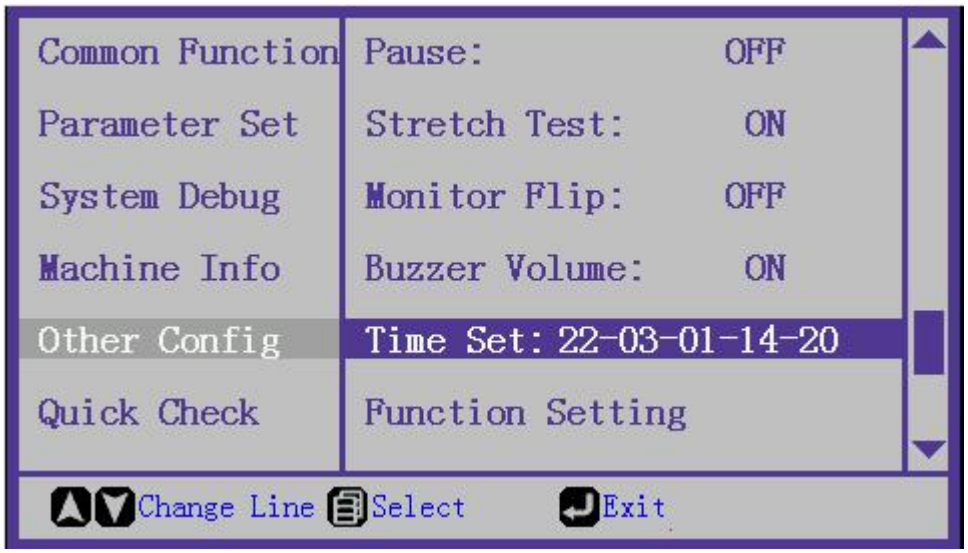
(5) Touch Swith

Function Introduction: For turn on or off the touchscreen. (Default ON)



(6) Time Set

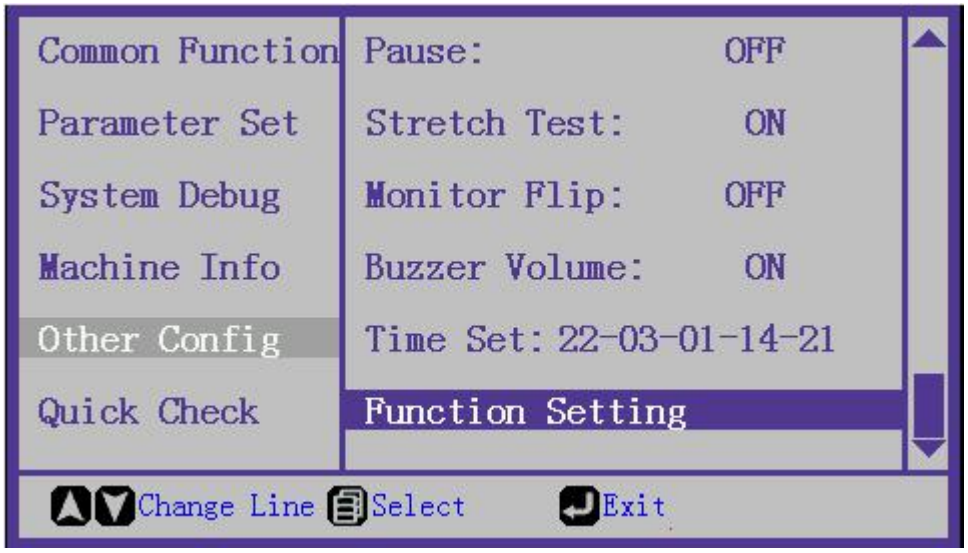
Function Introduction: Used to set device system time.



(7) Function Setting

Function Introduction: For turning on or off power-saving switch and setting standby time.

Step: Function Setting



7. Done

4.Functions

4.5. Other Config

4.5.1. Function Setting

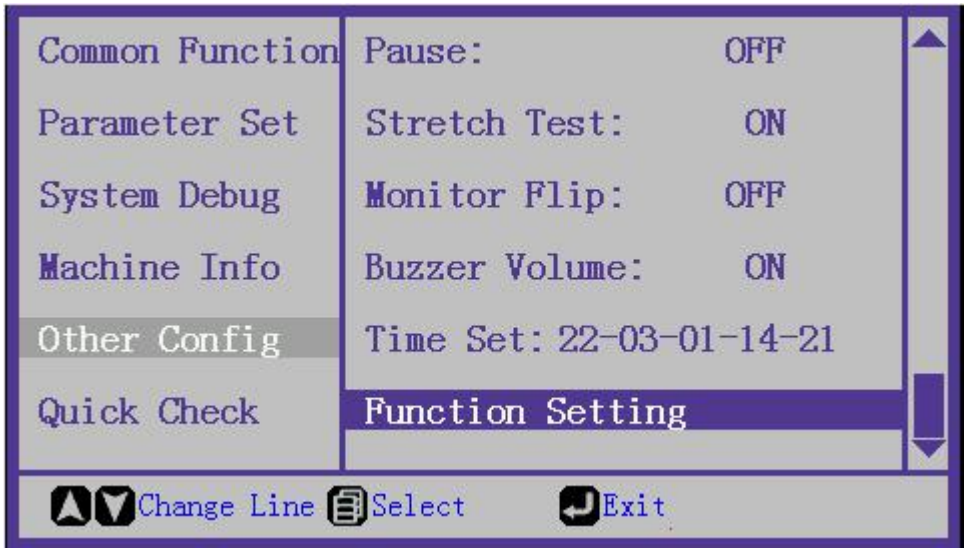
Function Setting

Function Introduction: Turn the power-saving switch on or off and set the standby time

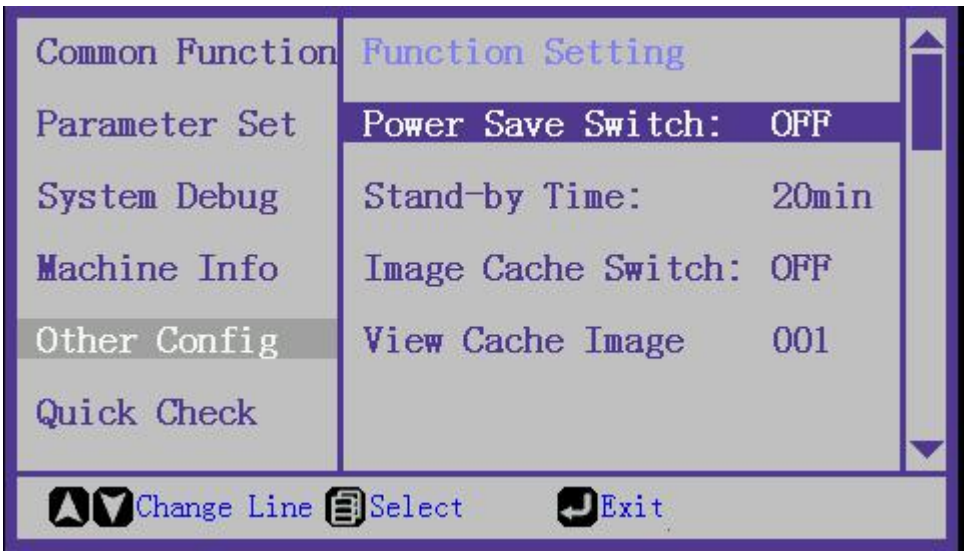
Step：

(1) Enter "Other Config" menu.

(2)Select "Function Setting".



(3) Press “Menu” to enter the function setting, which is used to turn on or off the power-saving switch and set the standby time.



(4) Done

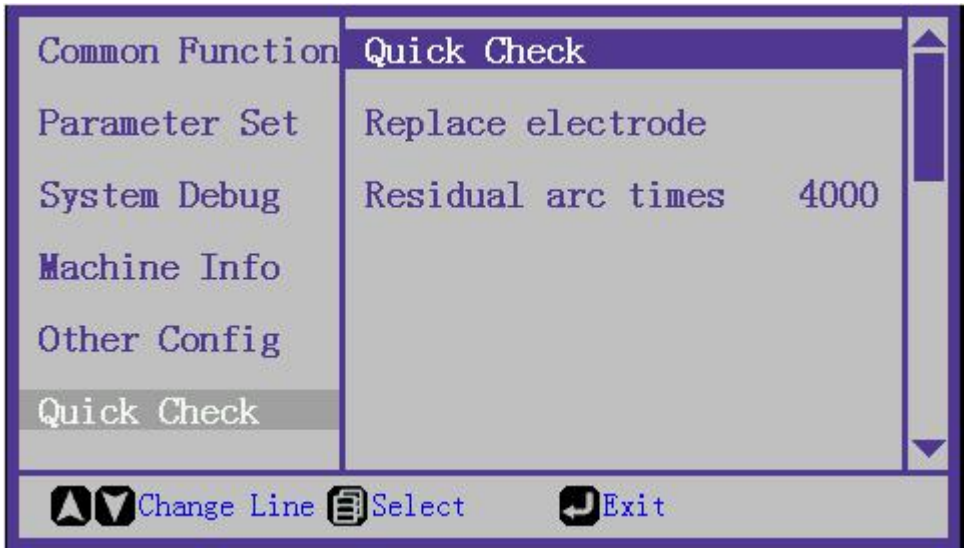
4.Functions

4.6. Quick Check

Quick Check

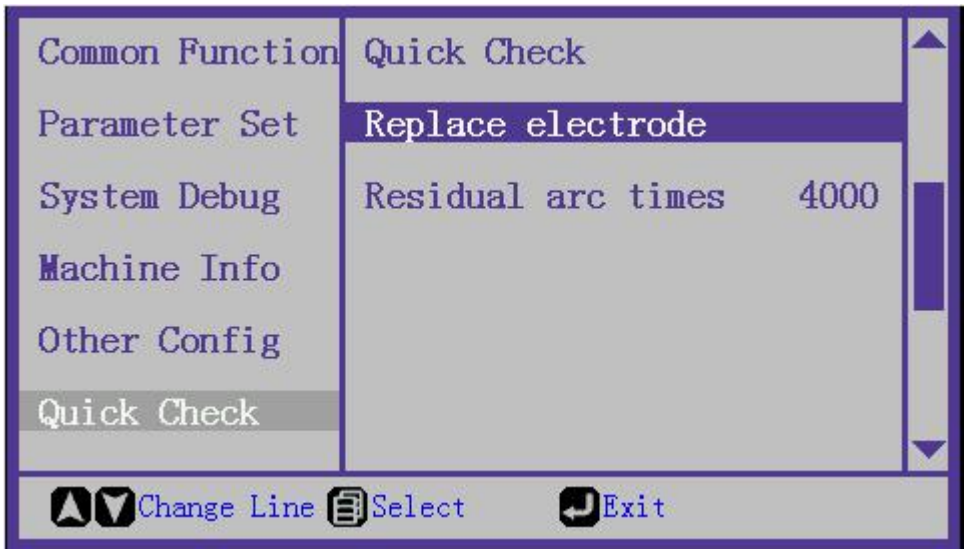
1. Quick Check

Function Introduction: Used for automatically complete the debugging of device parameters.



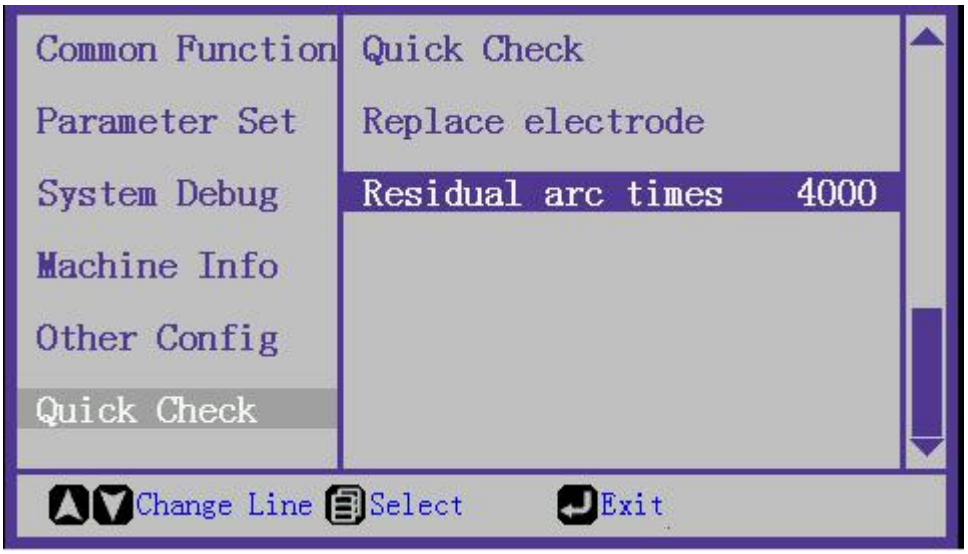
2. Replace electrode

Function Introduction: Used to reset the electrode life count.



3. Residual arc times （Electrode life）

Function Introduction: For check the remaining electrode life (arc times) .



4.Done

5.Troubleshooting

5.1. Fiber Displacement Adjust

Fiber Displacement Adjust

Resolve exception that fiber displaced from center of screen

0. Unusual Phenomena

0.1. Fiber displaced from center and warning "Replace Fiber".

0.2. Fiber displaced from center and moving up and down persistently.

0.3. Fibers collide while moving forward.

0.4. Two V grooves are not in line.

1. Clean V Groove

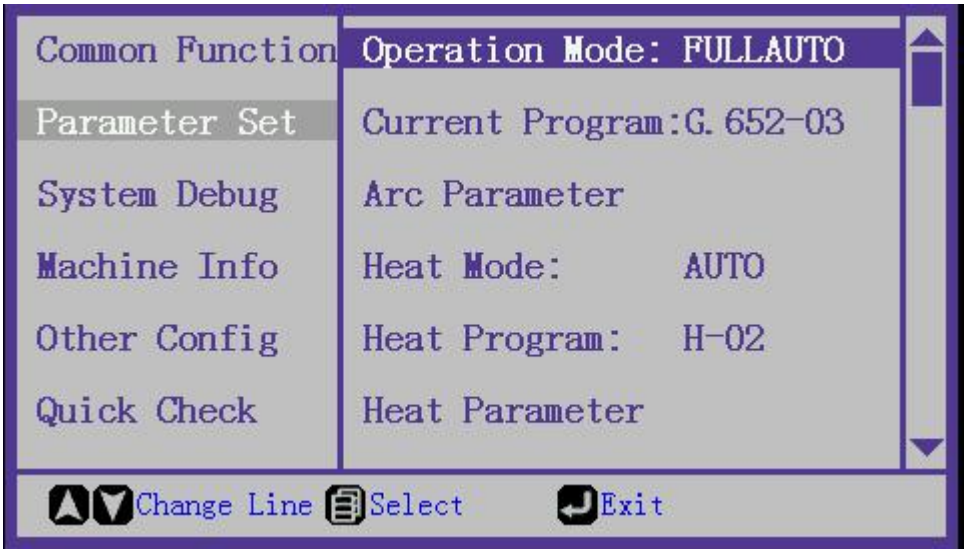
1.1. Clean left V groove with art knife.

1.2. Clean right V groove with art knife.

2. Select Mode

2.1. Press “Menu" and enter "Parameter Set".

2.2. Select option "Operation Mode".

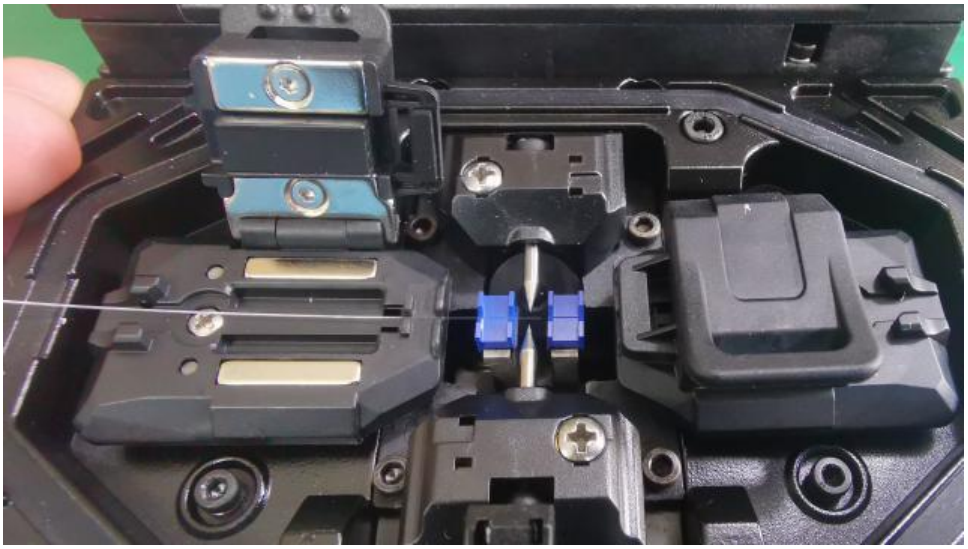


2.3. Press "Menu" and switch to "Manual" mode.

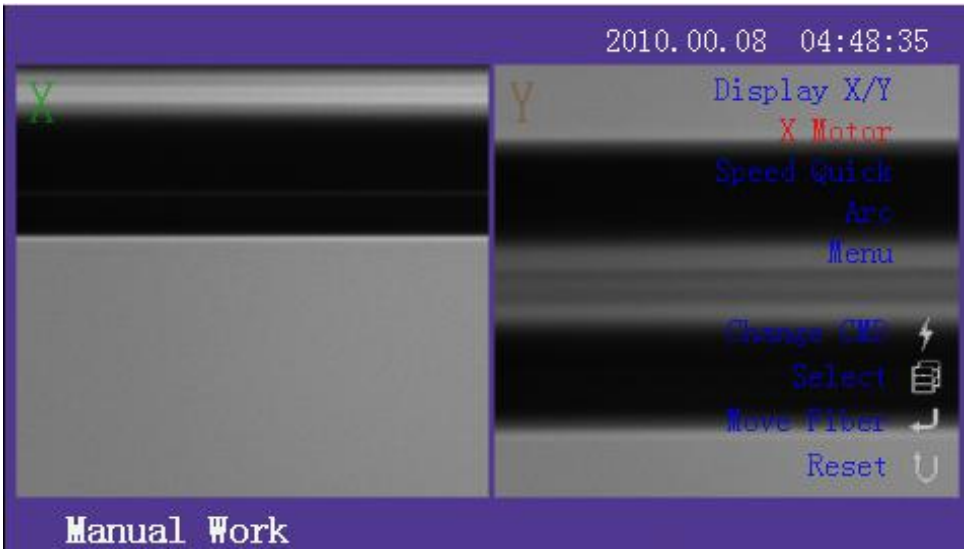
2.4. Press "Exit" and return to fusion menu Manual (Figure 2.3).

3. Adjust Left V Groove

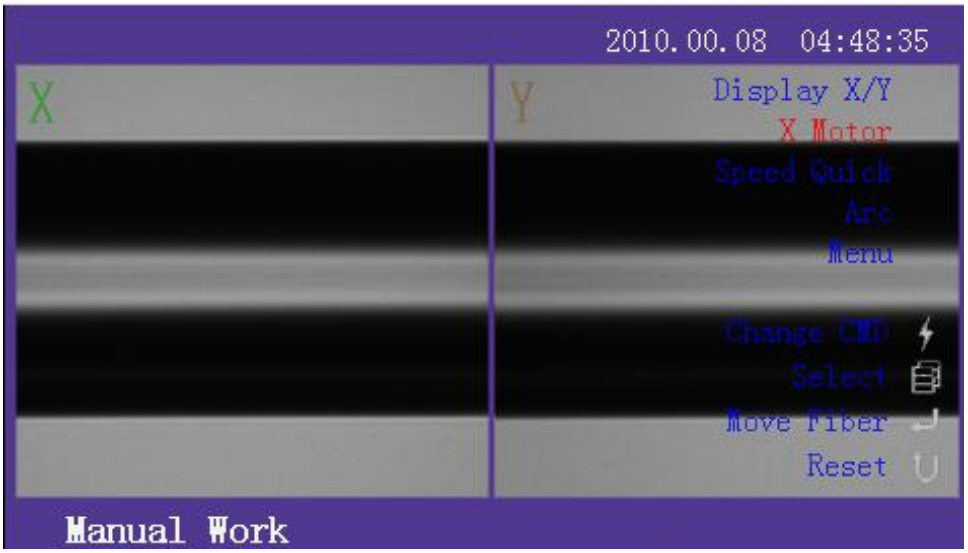
3.1. Place fiber into left V groove and close windproof cover. Fiber end must exceed electrodes. If Y fiber is not in the center of screen, repeat step 1.1. Clean left V groove.



3.2. Check right-side menu on screen. Press "Fusion button" to select second row, then press "Menu button" twice to switch to "x motor".



3.3. Hold "Up " or "Down" button until left fiber of X moves to center of x screen. **Note: Fiber will move slowly, please be patient and keep pressing. You can hear buzzing while holding the button.**

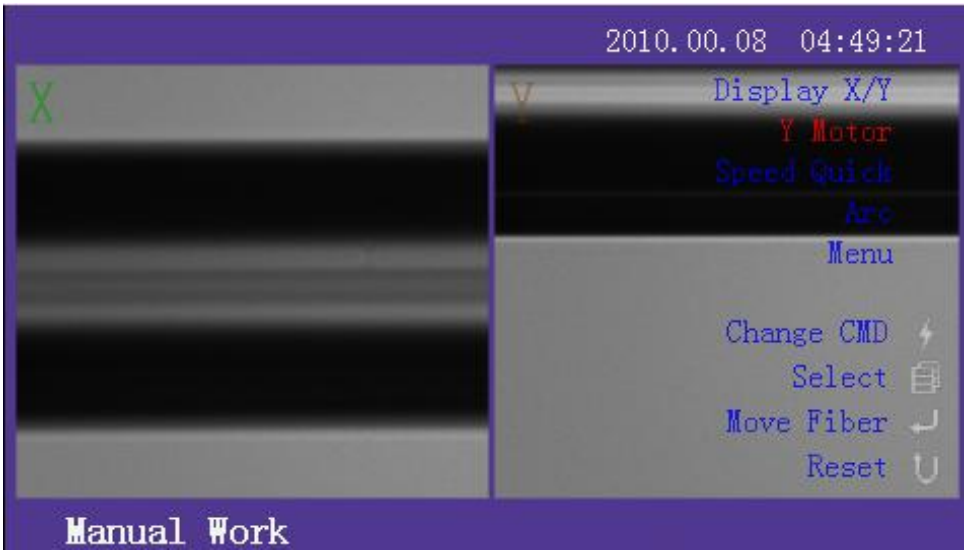


3.4. Place fiber into left V groove again. Fiber end must extend beyond the electrodes. Check whether left fiber of X is in the center of X screen. If fiber is not in the center, repeat step 3.3.

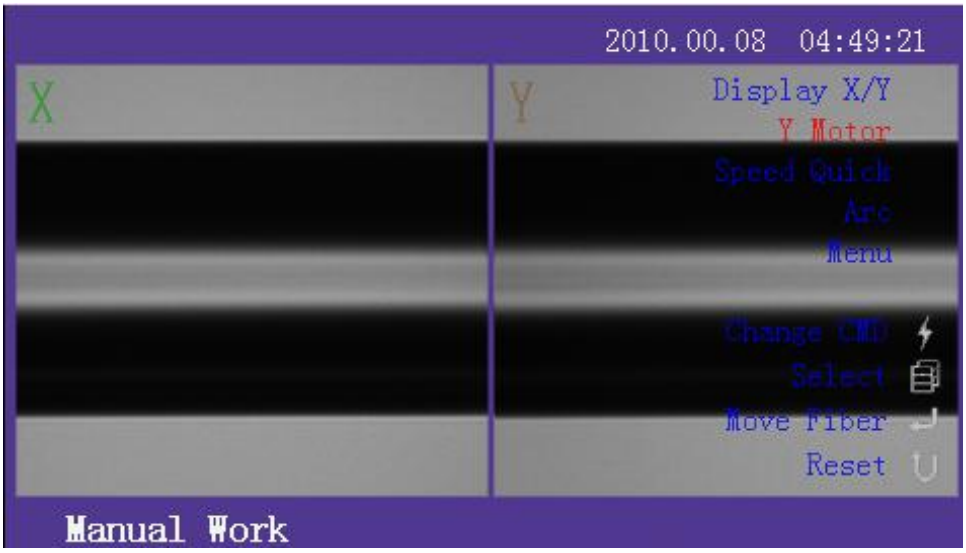
4. Adjust Right V Groove

4.1. Place fiber into right V groove and close windproof cover. Fiber end must extend beyond the electrodes. If X screen fiber is not in the center, repeat step 1.2. Clean the right V groove.

4.2. Check right-side menu second row. Press "Menu button" to switch to "y motor".



4.3. Hold "Up button" or "Down button" until right fiber of Y moves to center of y screen. **Note: Fiber will move slowly, please be patient and keep pressing. You can hear buzzing while holding the button.**



4.4. Place fiber into right V groove again. Fiber end must stand out beyond the electrodes. Check whether right fiber of Y is in the center of Y screen. If fiber is not in the center of screen, repeat step 4.3.

5. End