How to solve replace XFC's THC with SDF's THC

➔ Problem : Replace XFCs THC with SDFs THC

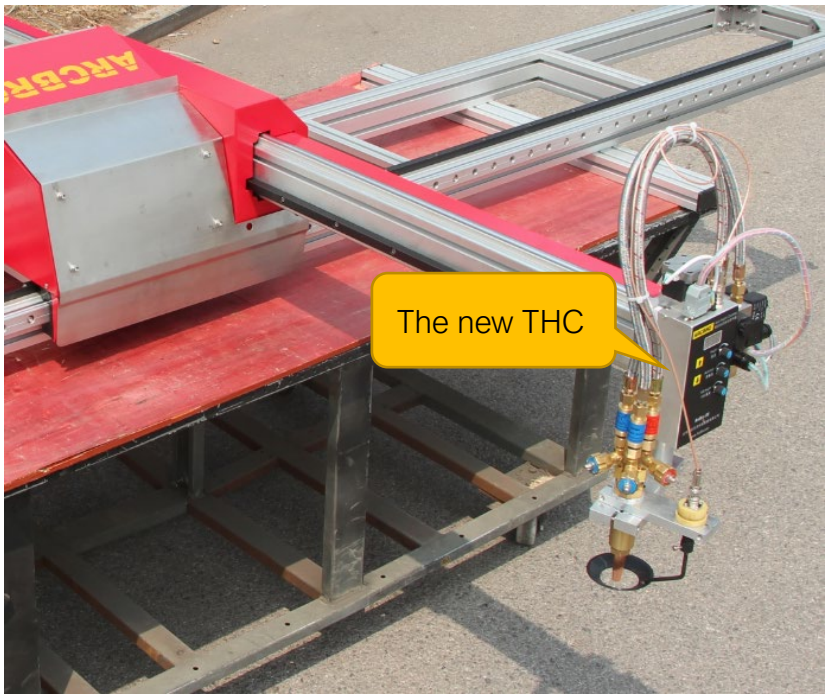
Solution overview： Replace the THC of the XFC with the THC of the SDF. The required accessories are shown in the list;

✵ Accessories form:

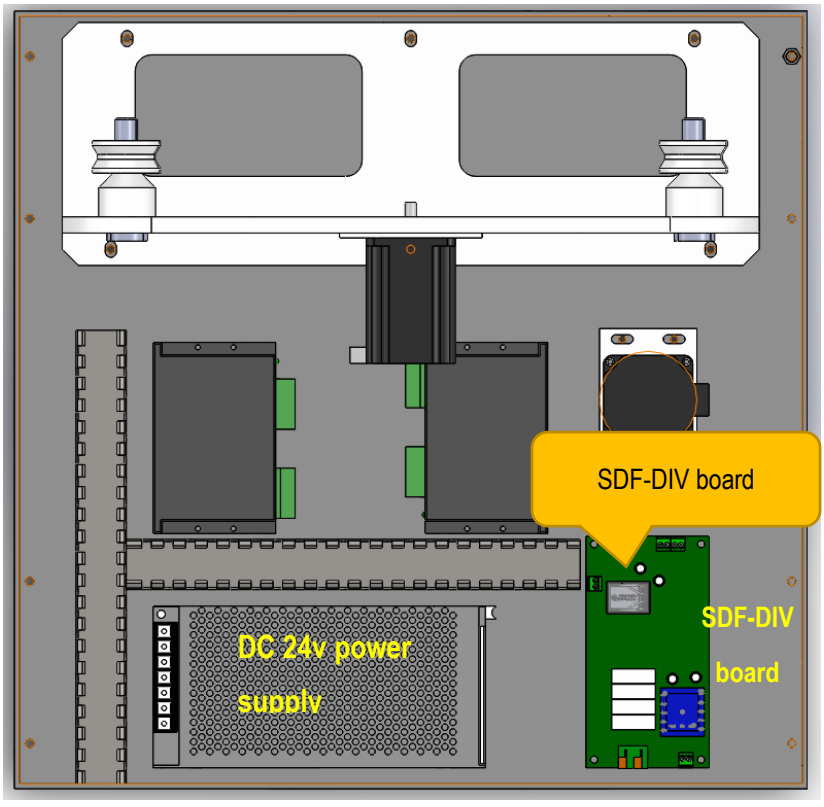
Name	Quantity	Remarks	Provider
Electronic limit	1 qty		ARCBRO—offers accessories
Select switch	1 qty		
4-pin aviation plug	1 qty		
9-core cable-0.5㎡ 4-core cable-0.5㎡ 2-core cable-0.5㎡	About 5000mm		
1-core cable-0.5㎡-red	About 3000mm		Customer-owned
1-core cable-0.5㎡-Black	About 3000mm		
Note: Customers need to install and need to prepare the installation tools themselves;			

➔ Install electrical accessories

✵ Step1: Install the new THC on the beam of the machine as shown;



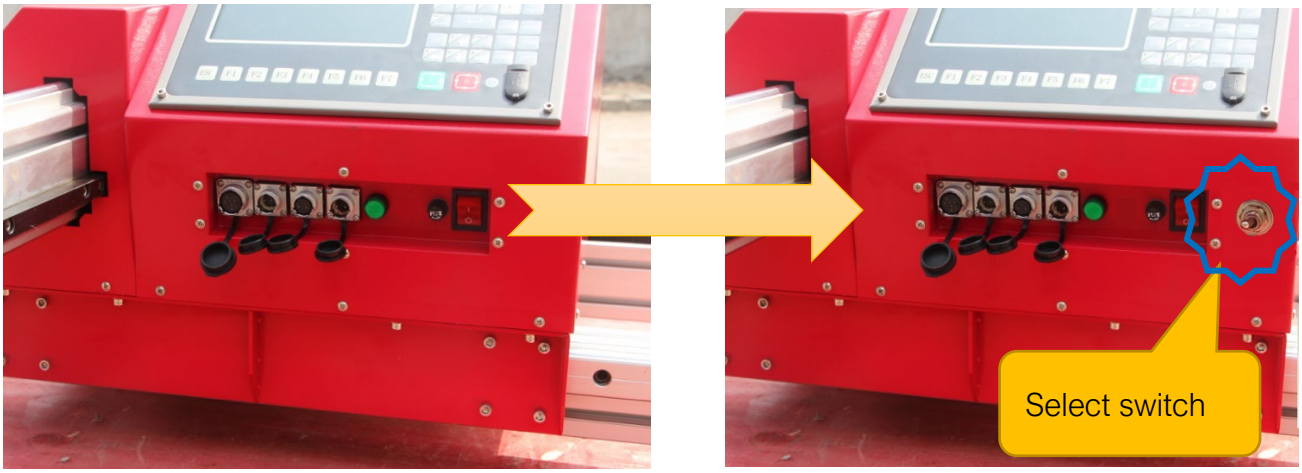
✵ Step2: Install the new DIV board in the control box of the machine as shown;



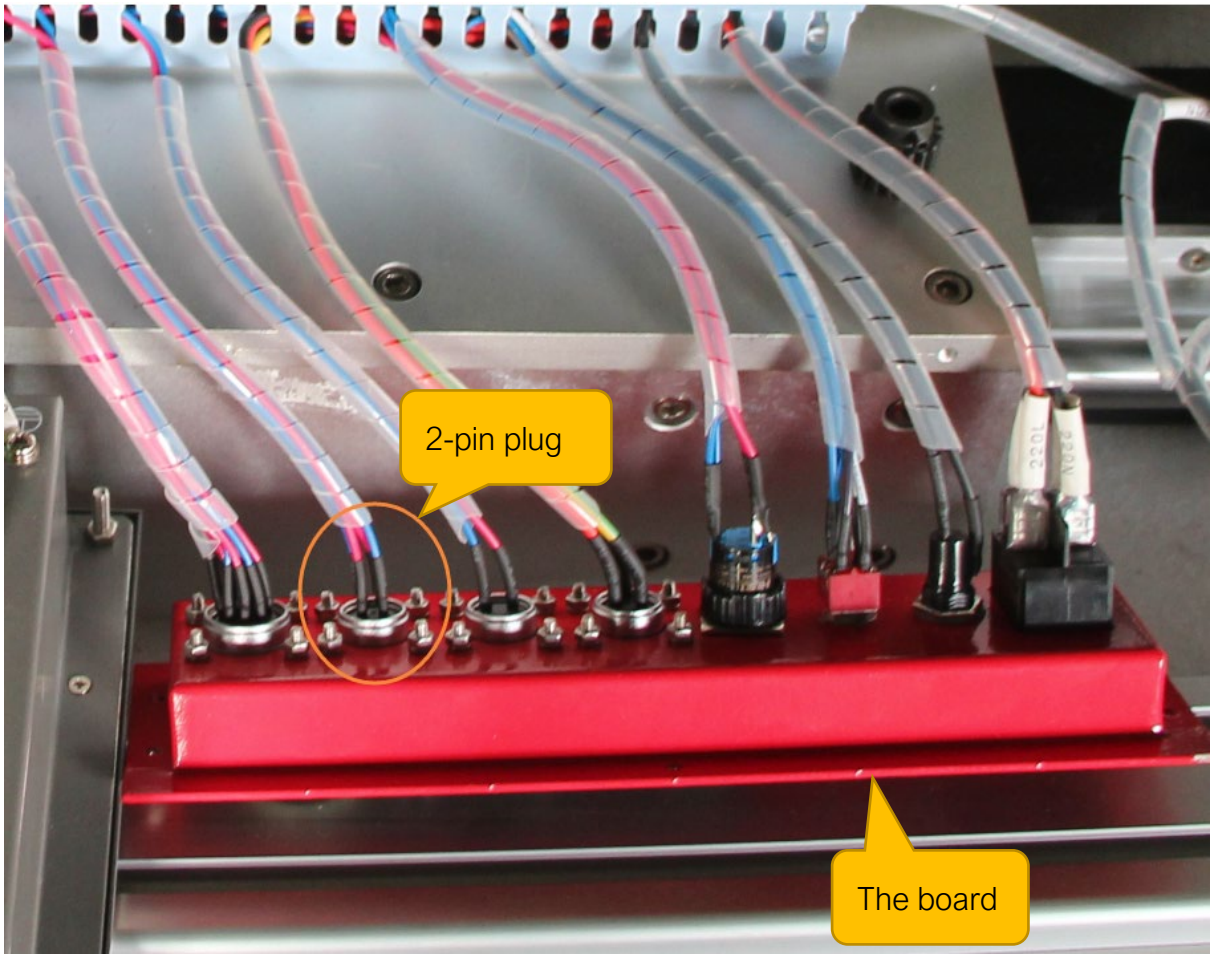
✵ Step3: Install the selector switch; you need to drill a mounting hole on the control cabinet

and then install the selector switch; (if there is a mounting hole, you do not need to drill)

as shown;

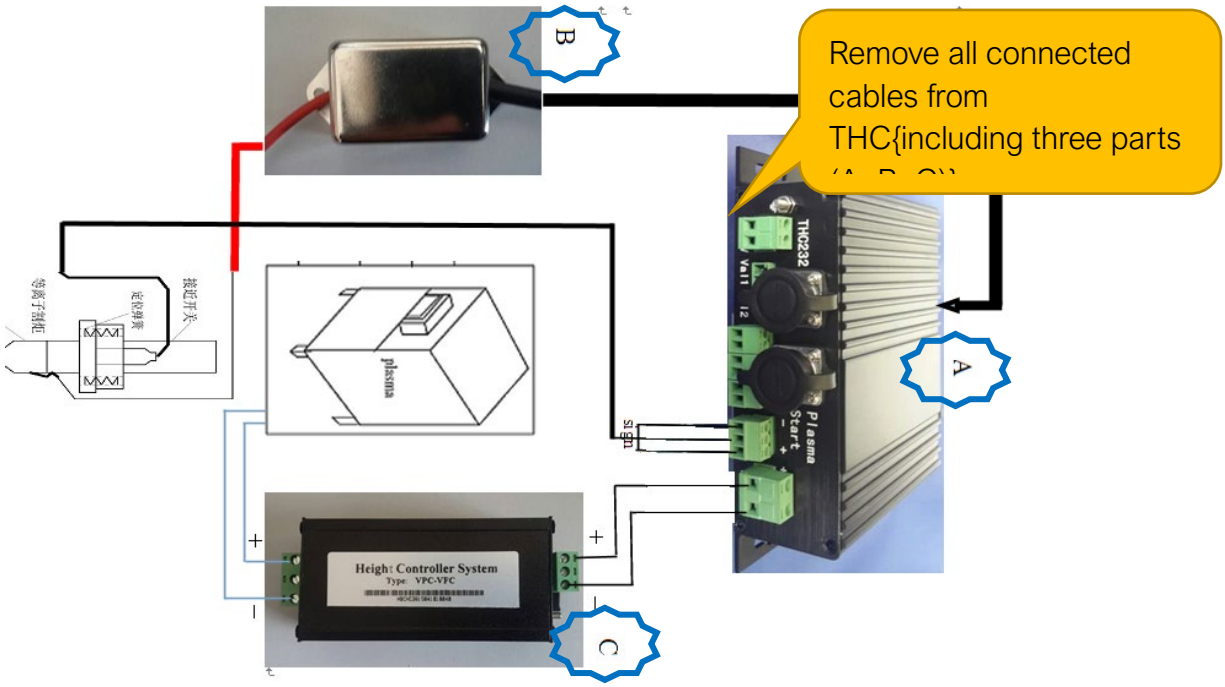


❋ Step4: Replace the 2-pin plug on the board with a 4-pin plug as shown;



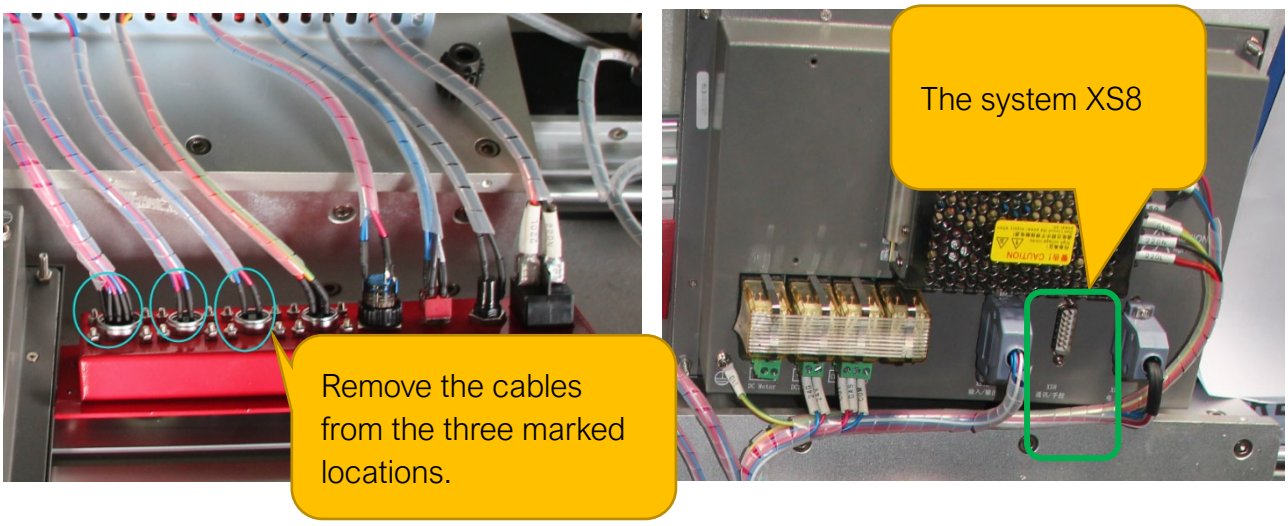
➔ Remove the circuit part of the old THC:

✵ Step1: Remove the circuit part of the old THC as shown;



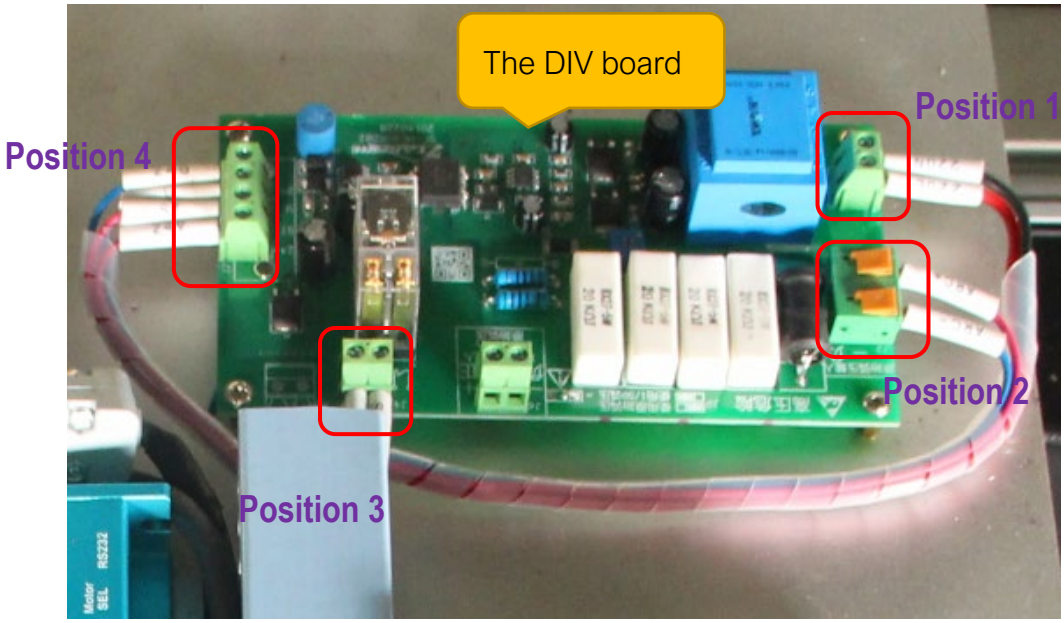
✵ Step2: Remove the cable from the 9-pin plug, 2-pin plug, and 2-pin plug; as shown;

✵ Step3: Remove the cable from the XS8 Port on the system; as shown;

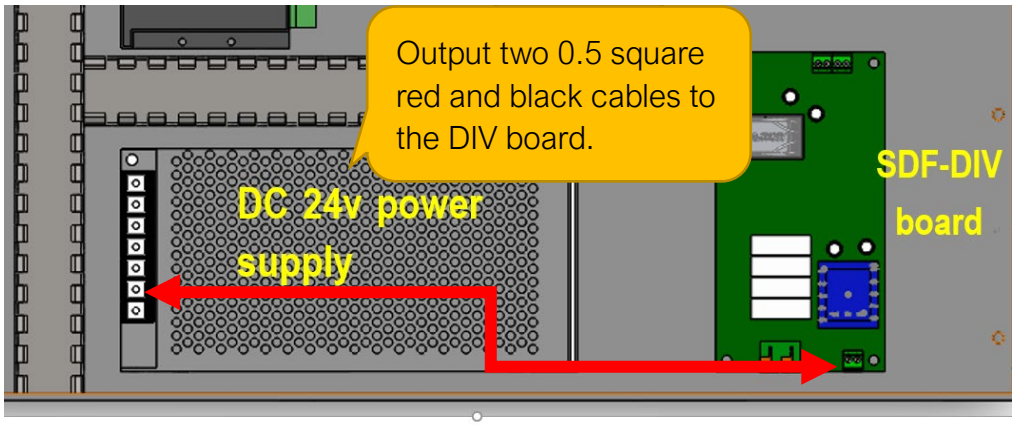


➔ Modify the circuit connection;

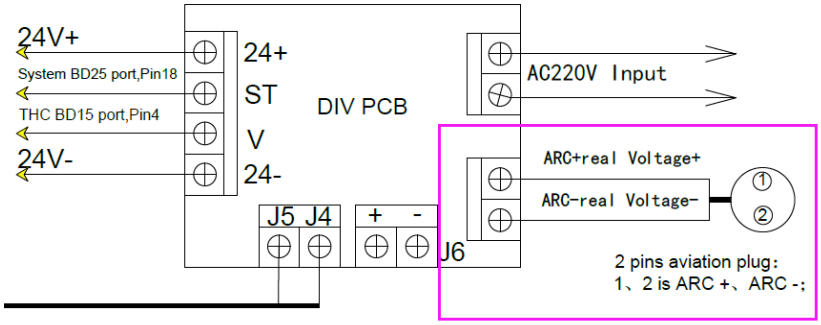
✵ Step1: The DIV board needs to be connected to 4 positions; as shown;



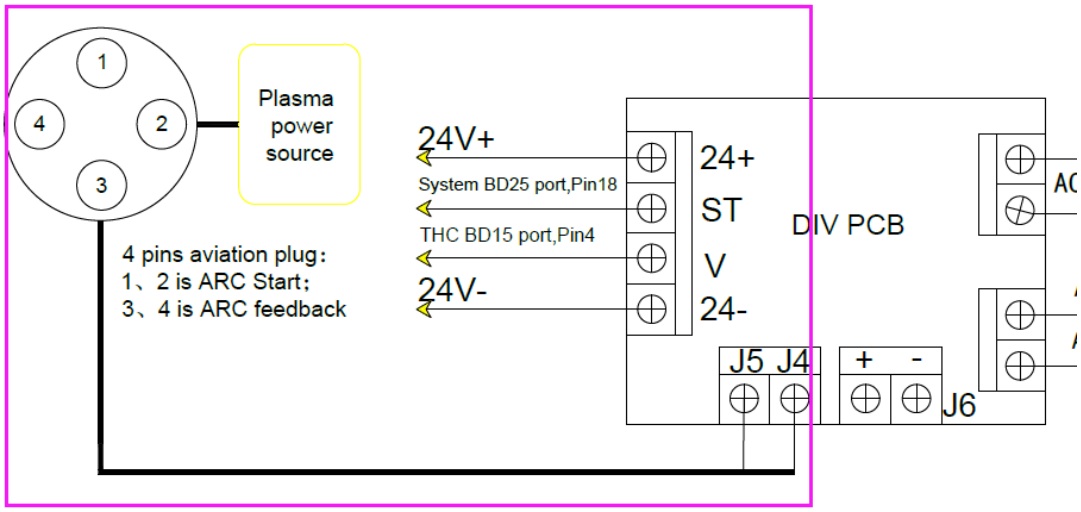
Position1： Power supply to the DIV board,Output two 0.5 square red and black cables from the DC24V power supply to the DIV board as shown;



Position2： The original arc voltage input point of the plasma;Output two cables from the J6 interface of the DIV-board to the 2 Pin aviation plug as shown;



Position3：Output arcing signal; output two cables from the DIV-boards J4 -J5 Port to Pin1 and Pin2 on the 4 Pin aviation plug, as shown;

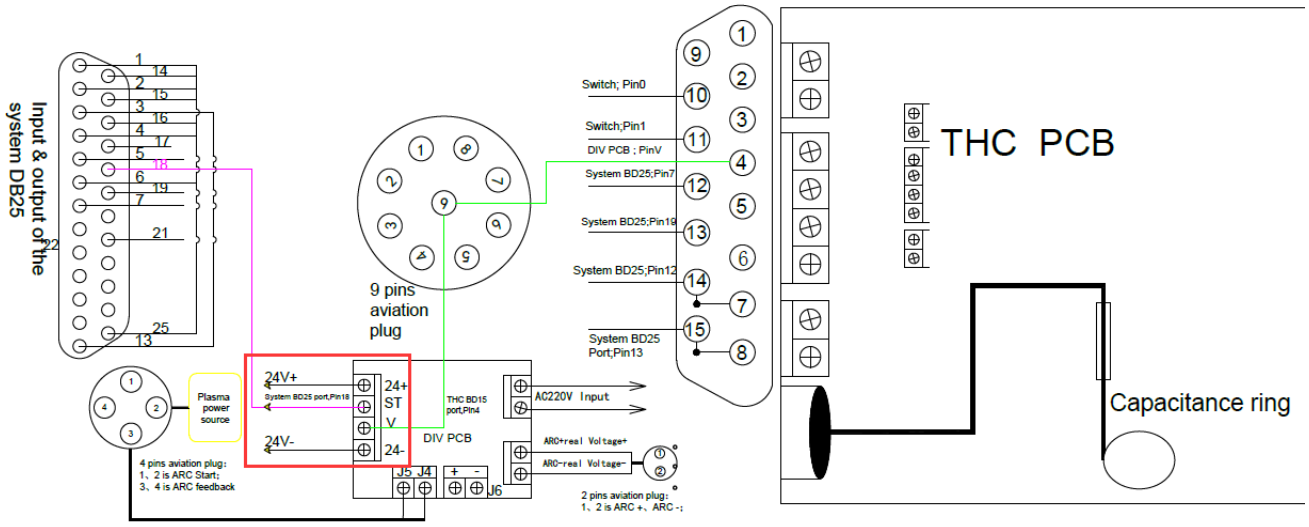


Position4：

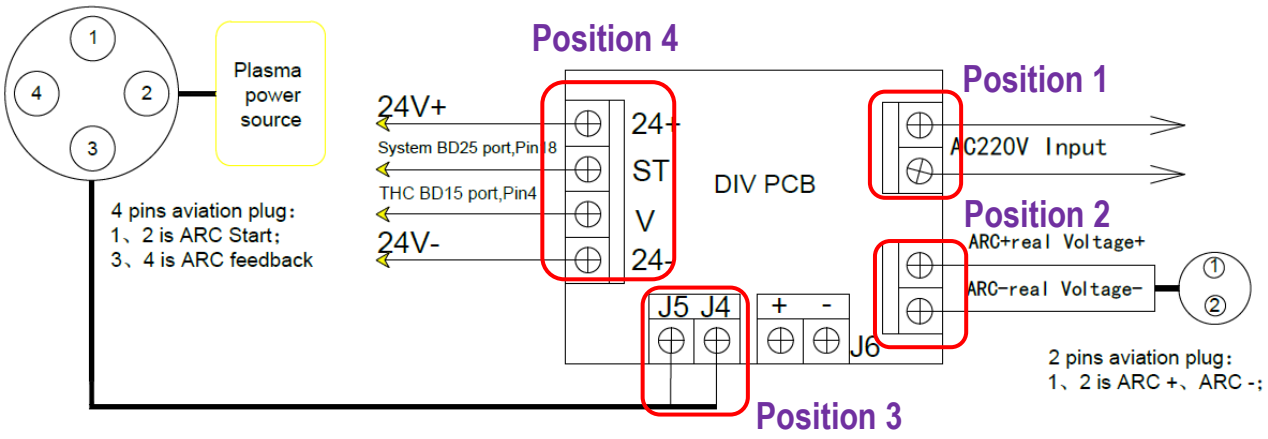
A--from the DC24V power supply output 24V voltage, connected to the DIV board –24V+/24V-with two 0.5 square red black cables

B--From the Pin ST of the DIV-board with a red cable (magenta mark) to the System BD25 port--Pin18;

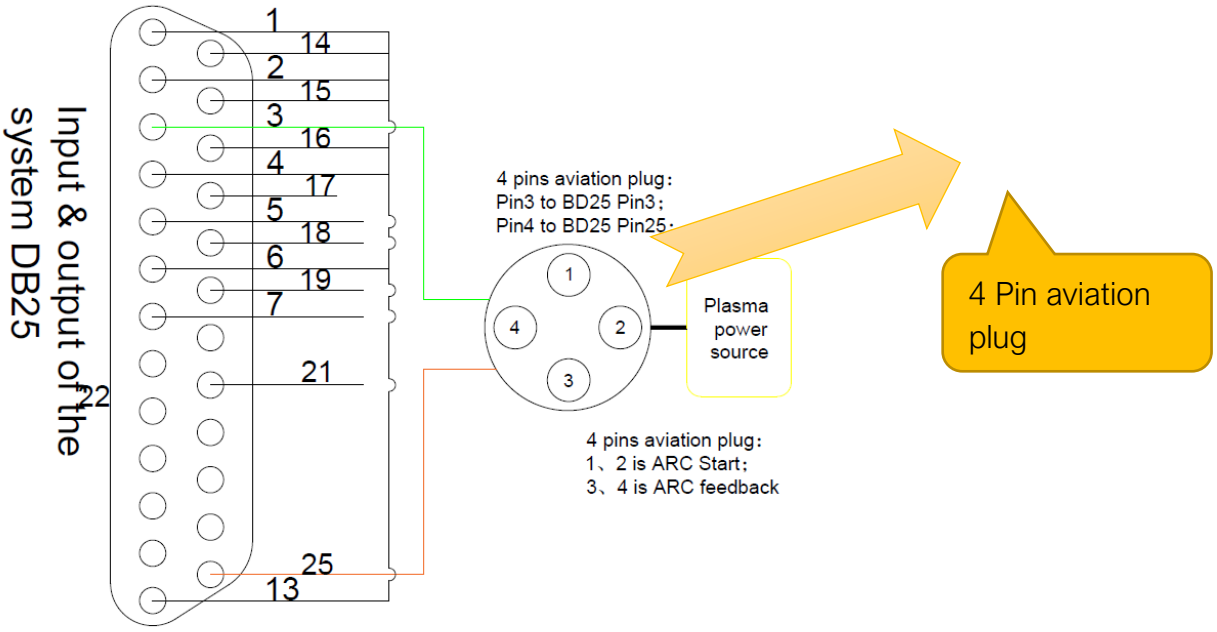
C--from the Pin V of the DIV-board with a black cable (green mark) to the 9 Pin aviation plug--Pin9;

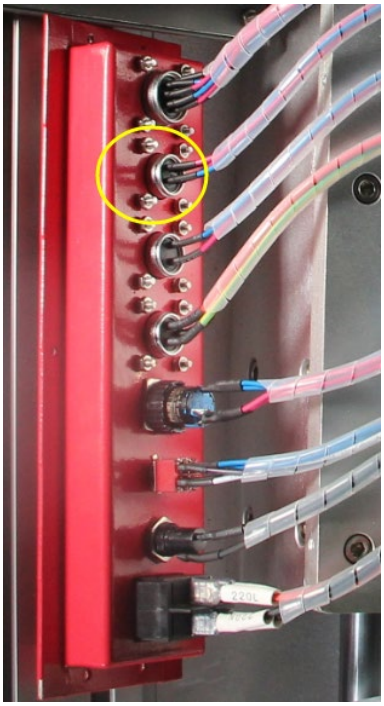


Electrical schematic:



✵ Step2: 4 Pin aviation plug needs to connect 2 positions, as shown;

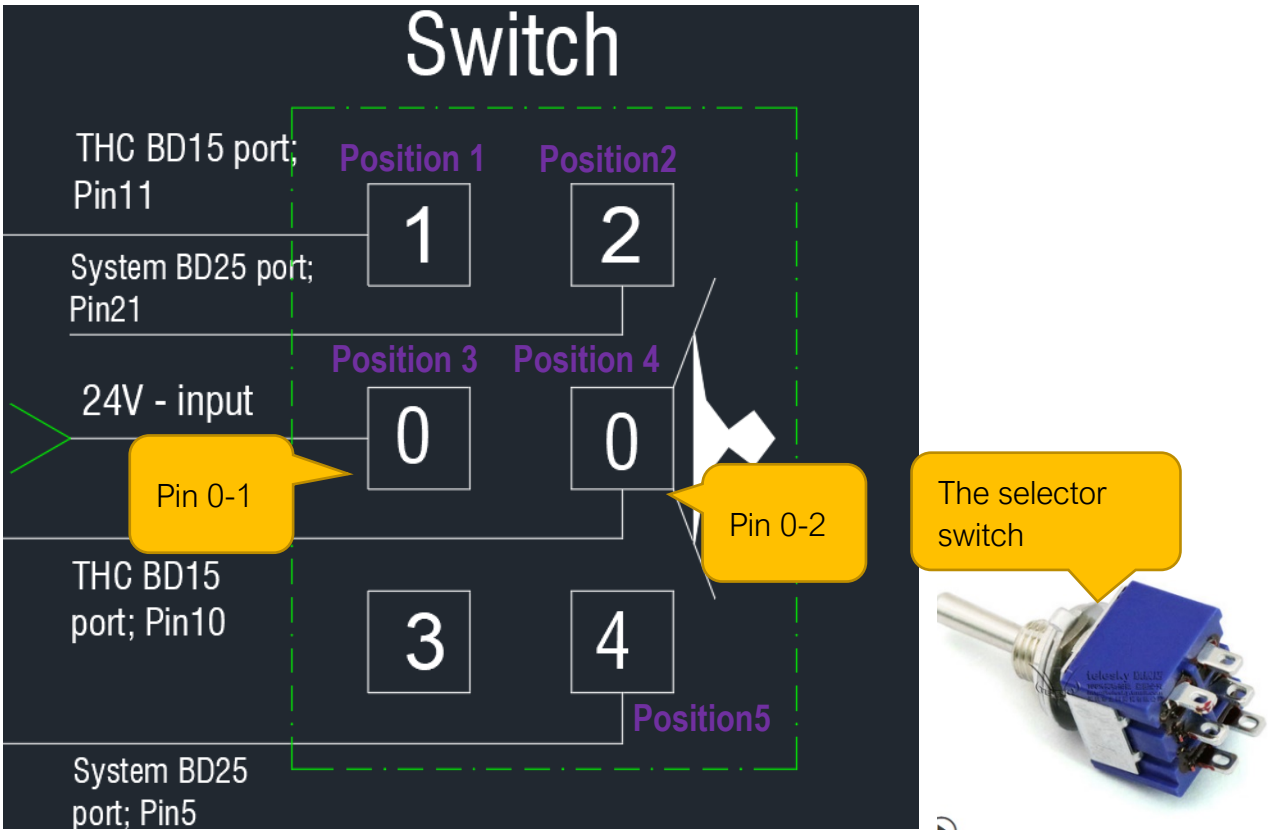




Position1：Connect a red cable from System BD25 port--Pin3 to 4 Pin aviation plug--Pin3;

Position2：Connect a black cable from System BD25 port--Pin25 to 4 Pin aviation plug-Pin4;

❋ Step3: The selector switch needs to be connected to 5 positions as shown in the figure;



Position1：Connect a red cable from 9 Pin aviation plug --Pin8 to Selector switch –Pin1;

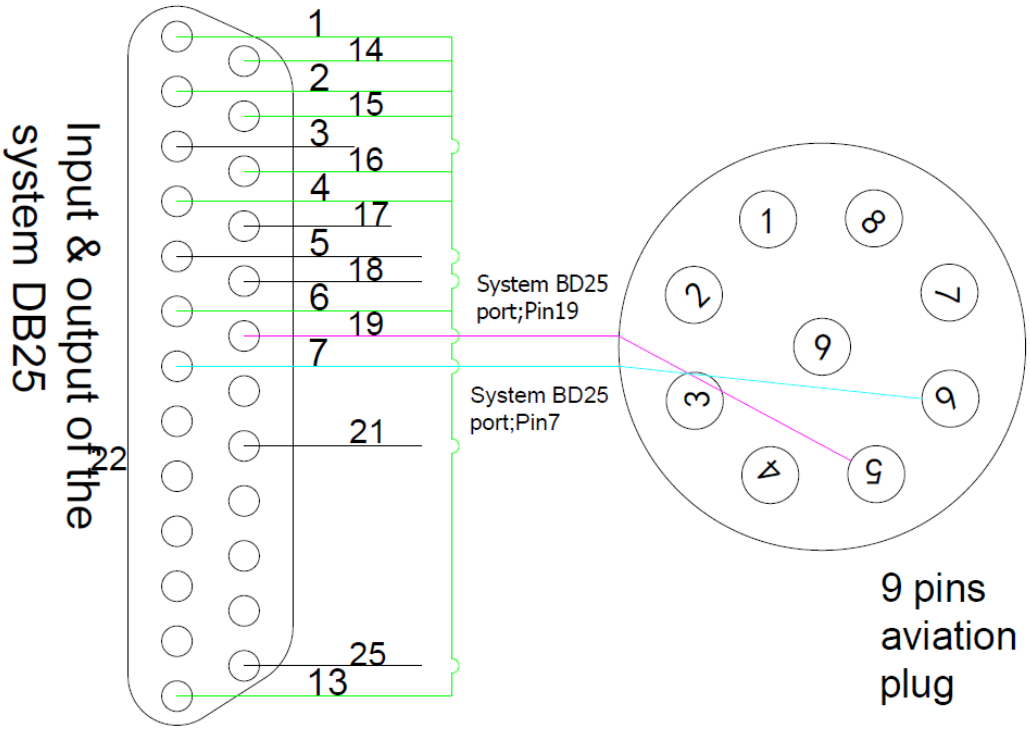
Position2：Connect a black cable from System BD25 port--Pin21 to Selector switch –Pin2;

Position3：Connect a red cable from DC24V power supply--DC24V- to Selector switch –Pin0-1;

Position4：Connect a black cable from 9 Pin aviation plug --Pin7 to Selector switch --Pin0-2;

Position5：Connect a red cable from System BD25 port--Pin5 to Selector switch –Pin4;

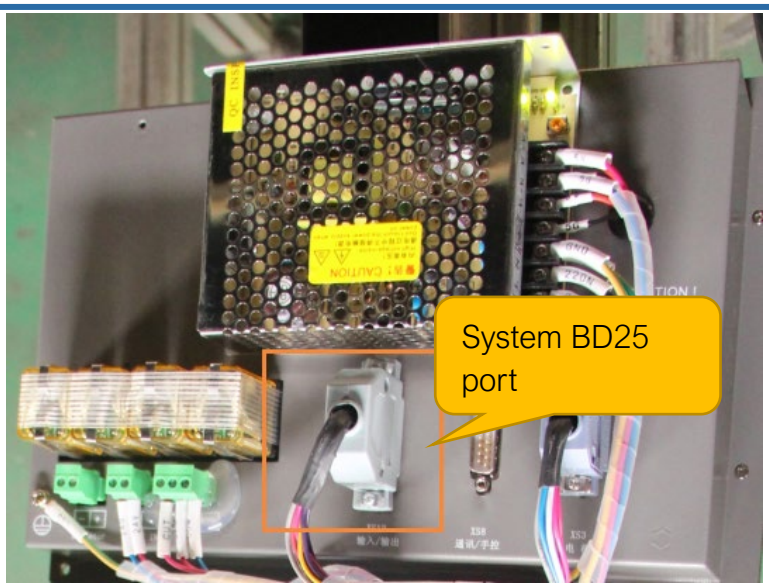
✵ Step4: The System BD25 port needs to be connected to 3 positions, as shown in the figure;



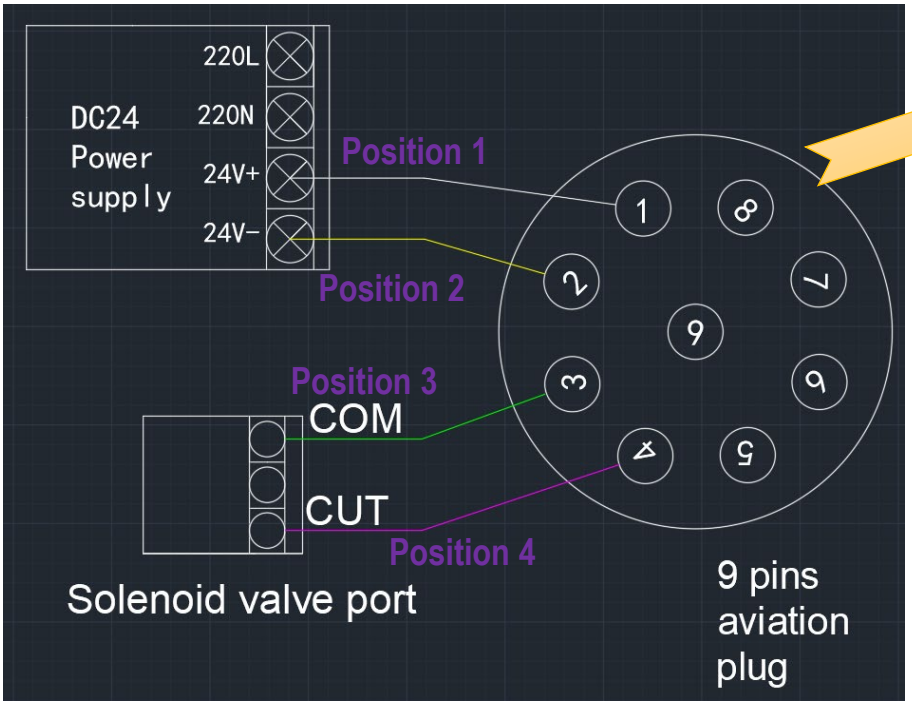
Position1：Connect a cable from System BD25 port--Pin1,Pin14,Pin2,Pin15,Pin16, Pin4,Pin6 to System BD25 port--Pin13;

Position2：Connect a black cable from System BD25 port--Pin7 to 9 Pin aviation plug –Pin6;

Position3：Connect a black cable from System BD25 port—Pin19 to 9 Pin aviation plug –Pin5;



❋ Step5: The 9 Pin aviation plug needs to be connected to 4 positions, as shown in the figure;

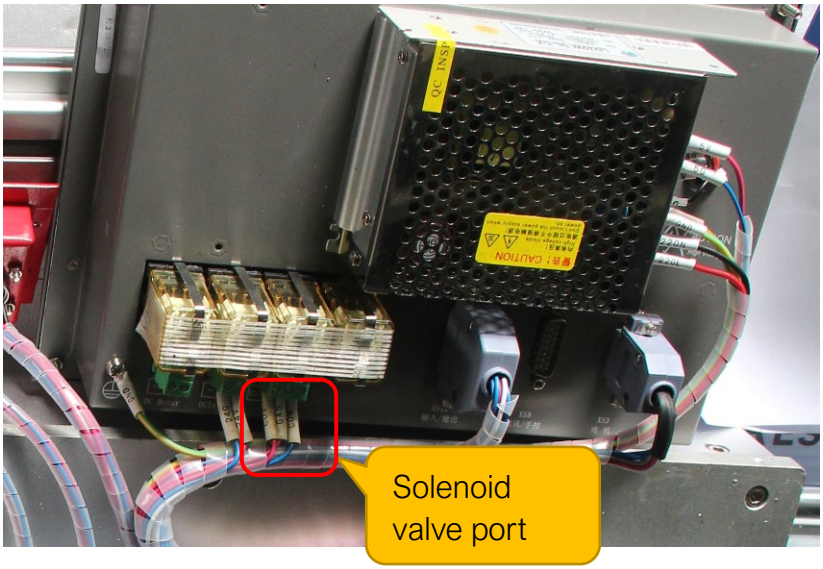


Position1： Connect a red cable from DC24V power supply--DC24V+ to 9 Pin aviation plug --Pin1;

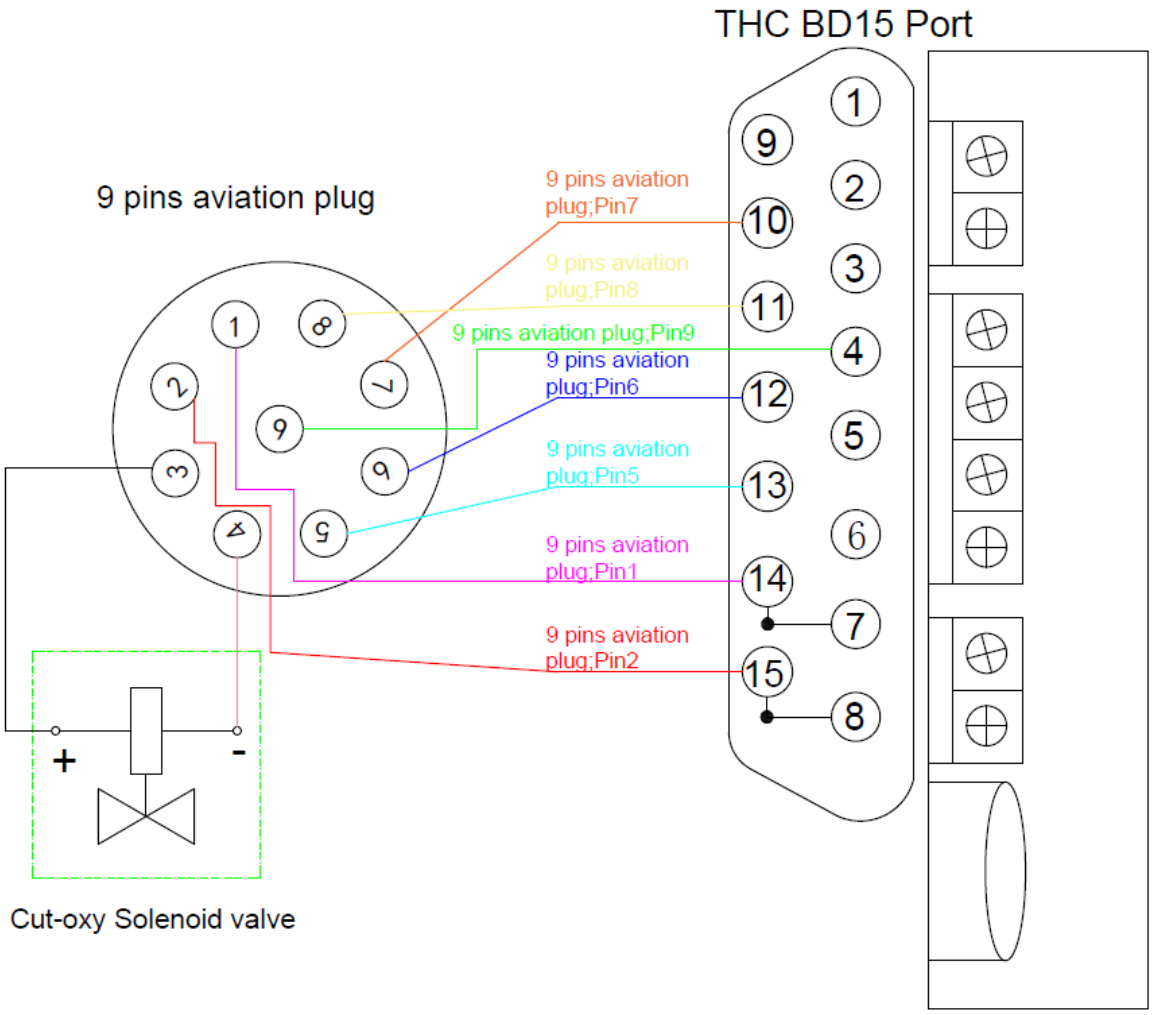
Position2： Connect a red cable from DC24V power supply--DC24V- to 9 Pin aviation plug --Pin2;

Position3：Connect a black cable from Solenoid valve port –Pin COM to 9 Pin aviation plug --Pin3;

Position4：Connect a black cable from Solenoid valve port –Pin COM to 9 Pin aviation plug –Pin4;



- Step6: The 9-pin aviation plug male port needs to be connected to 9 positions, as shown in the figure;



Position1: Connect the 9-pin aviation plug male port --Pin1 to THC DB25 Port --Pin14 with a 9-pin cable;

Position2: Connect the 9-pin aviation plug male port --Pin2 to THC DB25 Port --Pin15 with a 9-pin cable;

Position3: Connect the 9-pin aviation plug male port --Pin3 to Cut-oxy Solenoid valve –Pin+ with a 9-pin cable;

Position4: Connect the 9-pin aviation plug male port --Pin4 to Cut-oxy Solenoid valve –Pin- with a 9-pin cable;

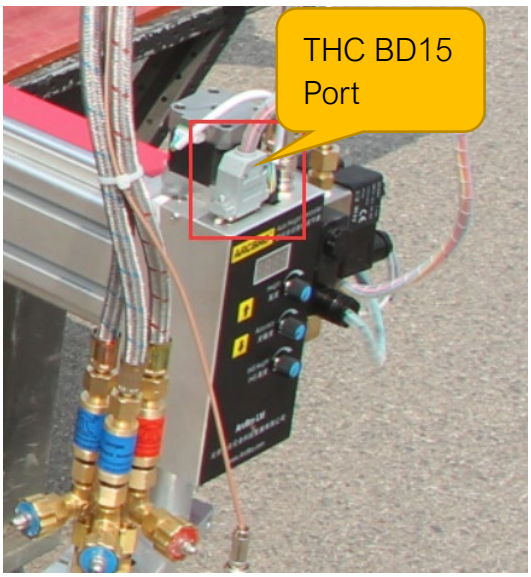
Position5: Connect the 9-pin aviation plug male port --Pin5 to THC DB25 Port --Pin13 with a 9-pin cable;

Position6: Connect the 9-pin aviation plug male port --Pin6 to THC DB25 Port --Pin12 with a 9-pin cable;

Position7: Connect the 9-pin aviation plug male port –Pin1 to THC DB25 Port --Pin10 with a 9-pin cable;

Position8: Connect the 9-pin aviation plug male port –Pin1 to THC DB25 Port --Pin11 with a 9-pin cable;

Position9: Connect the 9-pin aviation plug male port –Pin1 to THC DB25 Port --Pin4 with a 9-pin cable;



➔ Making an ARC Start cable and a DIV cable;

✵ Step1: Make cables with the cable we provide;

➔ System upgrade：

First, Take photo to record all the system original parameters.

Decompress the installation file and change its name into “startcnc”.

Then follow steps below to update the system:

Step 1:

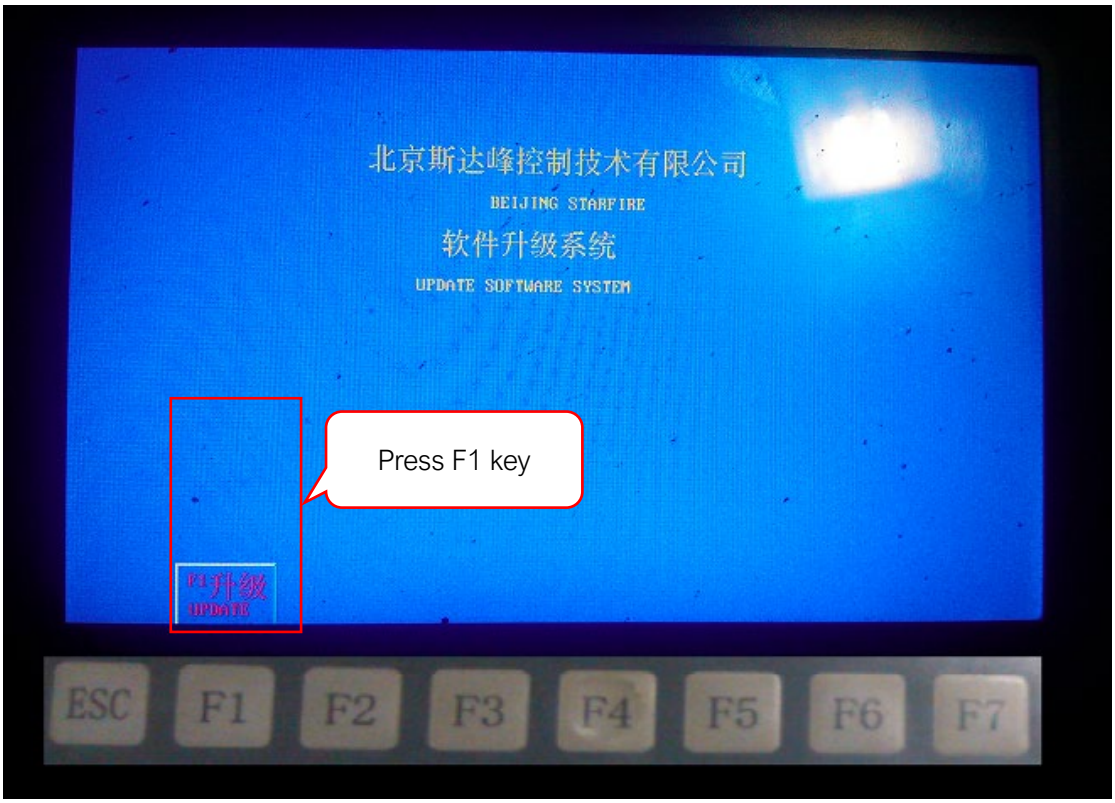
Turn off the machines power supply, put U disk into the USB interface, as shown in Figure Pic1.

Pic1

Step 2: Hold down upgrade key, as shown in Pic2, and then turn on the power supply; Blue screen appears, then loose the upgrade key. The display will appear as shown in the interface Pic3.

Pic 2

Step 3: Press F1, As shown in Figure Pic3; System will automatically read U disk as shown Pic4, Wait for the upgrading process finished successfully; Then reboot the machine.



Pic 3

Pic 4

Then, after finish updating successfully,

Set the system parameters according to the photo records.