

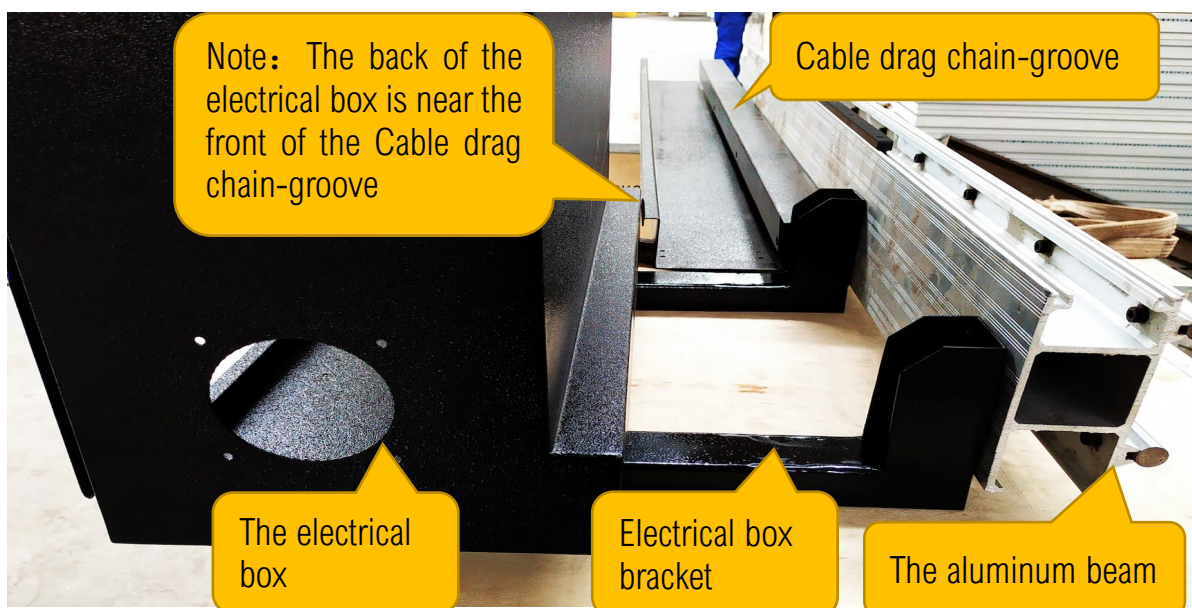
The THC upgrade --Thunder-X

→ Problem : The THC upgrade --Thunder-X

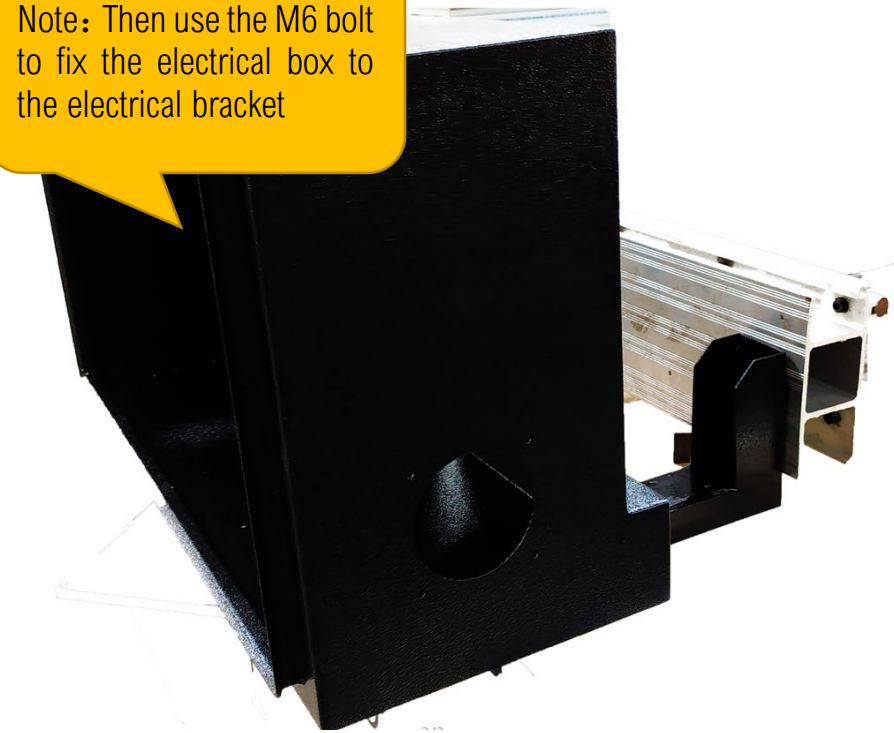
- Solution overview:
1. Electrically controlled box mounted to the beam;
 2. Connect all parts in the electrical box;
 3. CHC wiring and flame lifter motor wiring;
 4. IHS wiring and plasma lifter motor wiring;
 5. Adjust system pulse and test machine;

→ Electrically controlled box mounted to the beam;

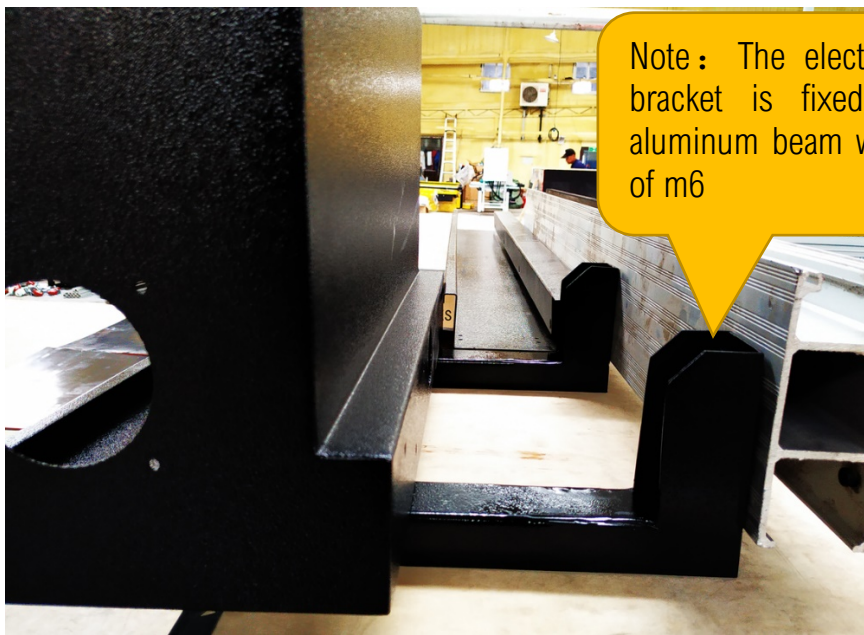
- * Step1: Since the cable drag chain-groove interferes with the installation of the electrical box bracket, remove the cable drag chain-groove by 500mm.
- * Step2: Install the electrical bracket, based on the end of the aluminum, install the first electrical bracket (electrical bracket center distance) at 145mm; install the second bracket at 460mm; the electrical box bracket is fixed to the aluminum beam with bolts of m6 , then use the M6 bolt to fix the electrical box to the electrical bracket; As shown;



Note: Then use the M6 bolt to fix the electrical box to the electrical bracket



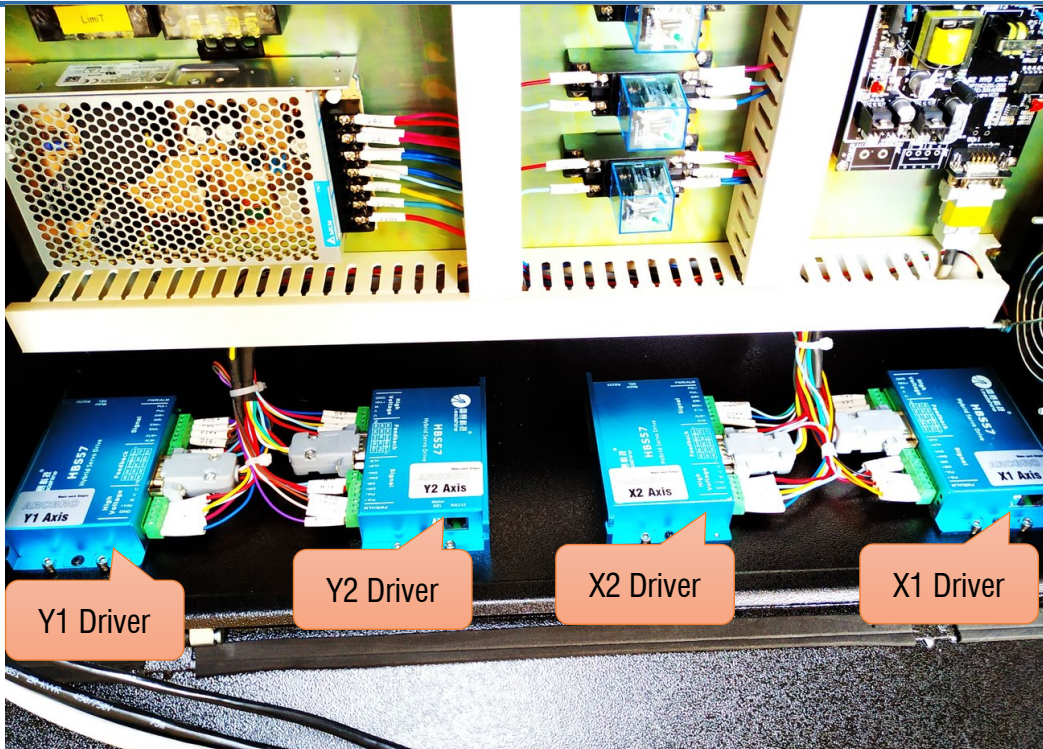
Note: The electrical box bracket is fixed to the aluminum beam with bolts of m6



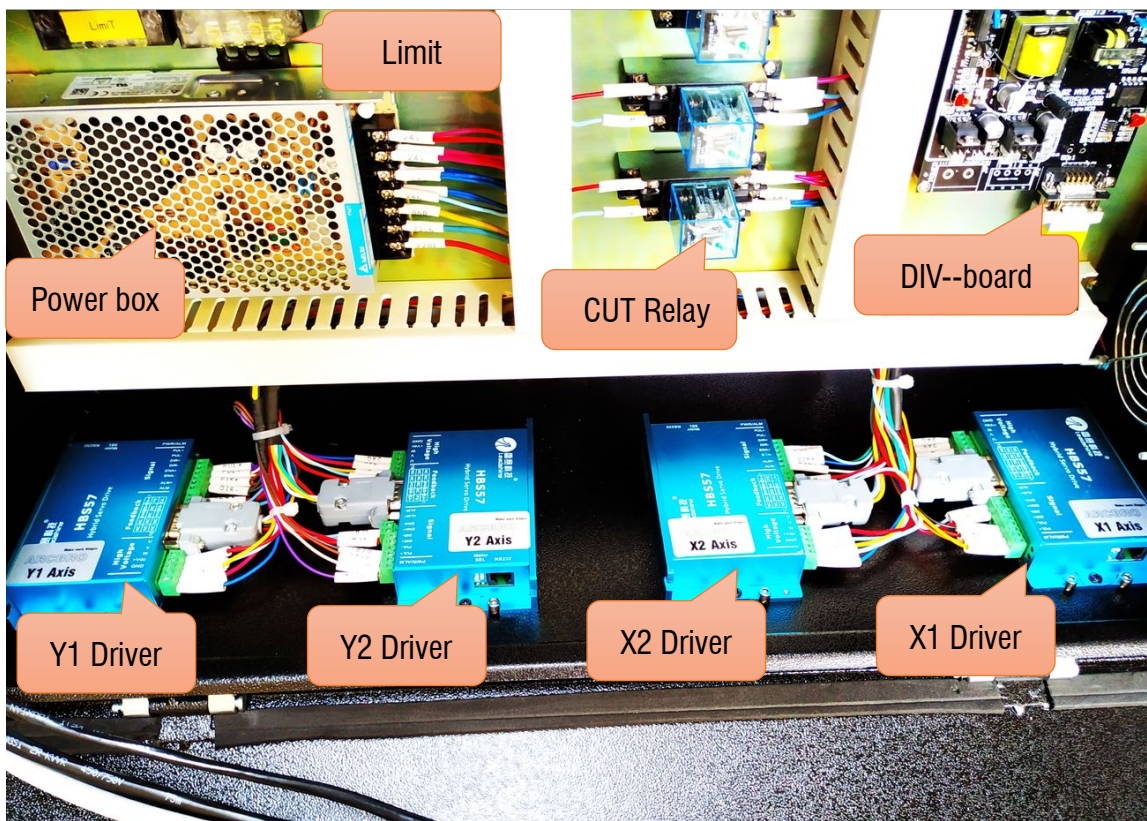
➔ Connect all parts in the electrical box; When connecting the cable, you need to pass the cable through the beam and the Cable drag chain-groove according to the actual situation.

* Step1: Install the X1, X2 and Y1, Y2 drivers in the electrical box; As shown

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* Step2: The power box ;DIV—Board; X1, X2 and Y1, Y2 drivers; Cut Relay; Limit
Connected to the cable of the 8 positions; As shown



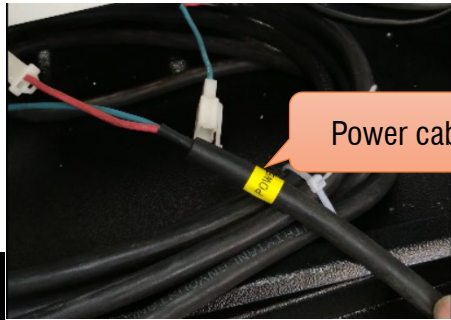
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✳ Position1--Power box→There are two positions need to connect: Power cable and

THC power cable

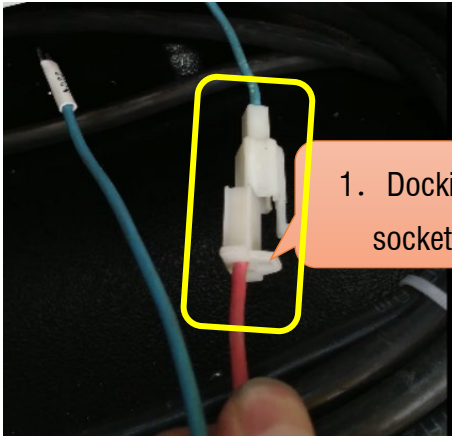
Power cable: There are two

locations to connect As shown.

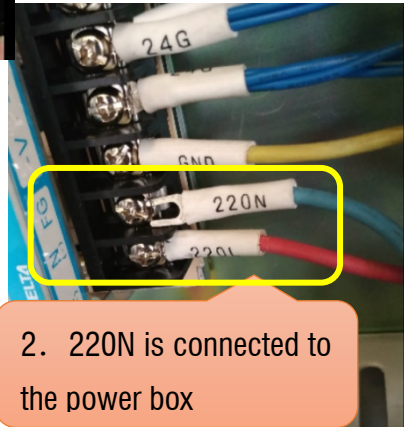


Power cable

As shown;

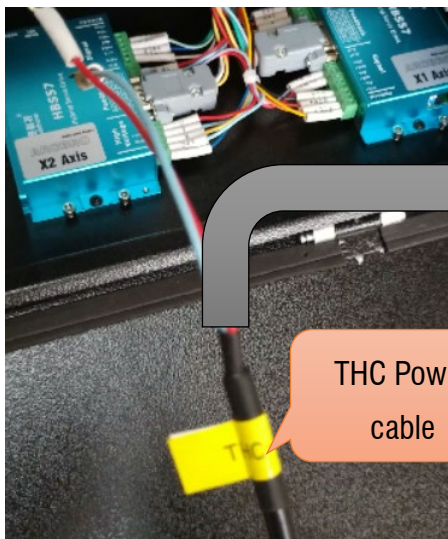


1. Docking socket

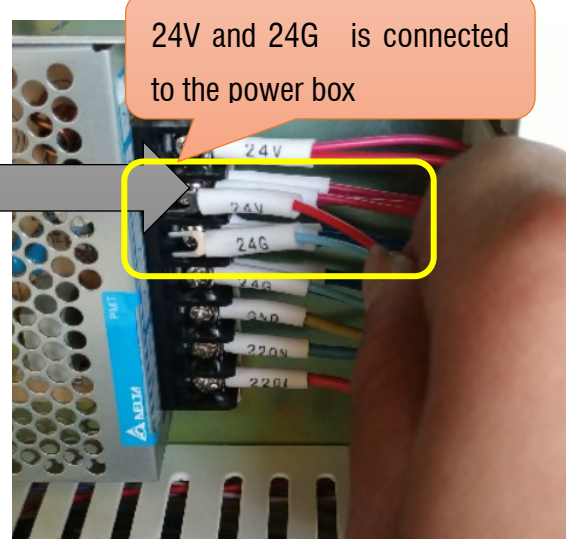


2. 220N is connected to the power box

THC Power cable: DC24V is connected to the power box. As shown

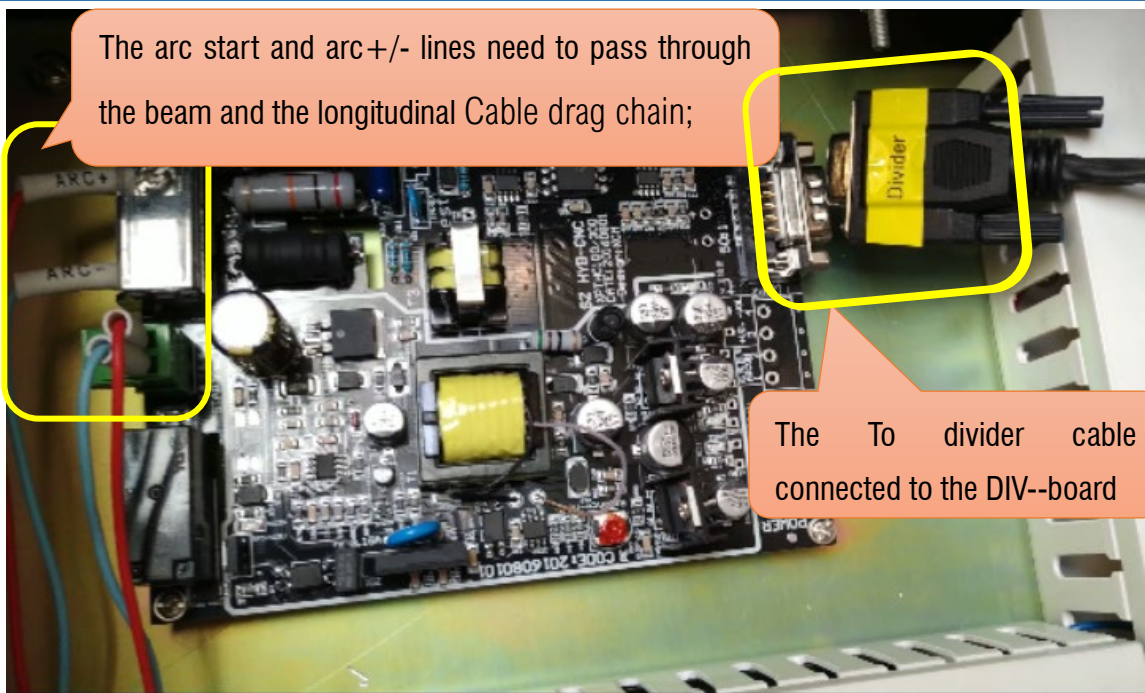


THC Power cable

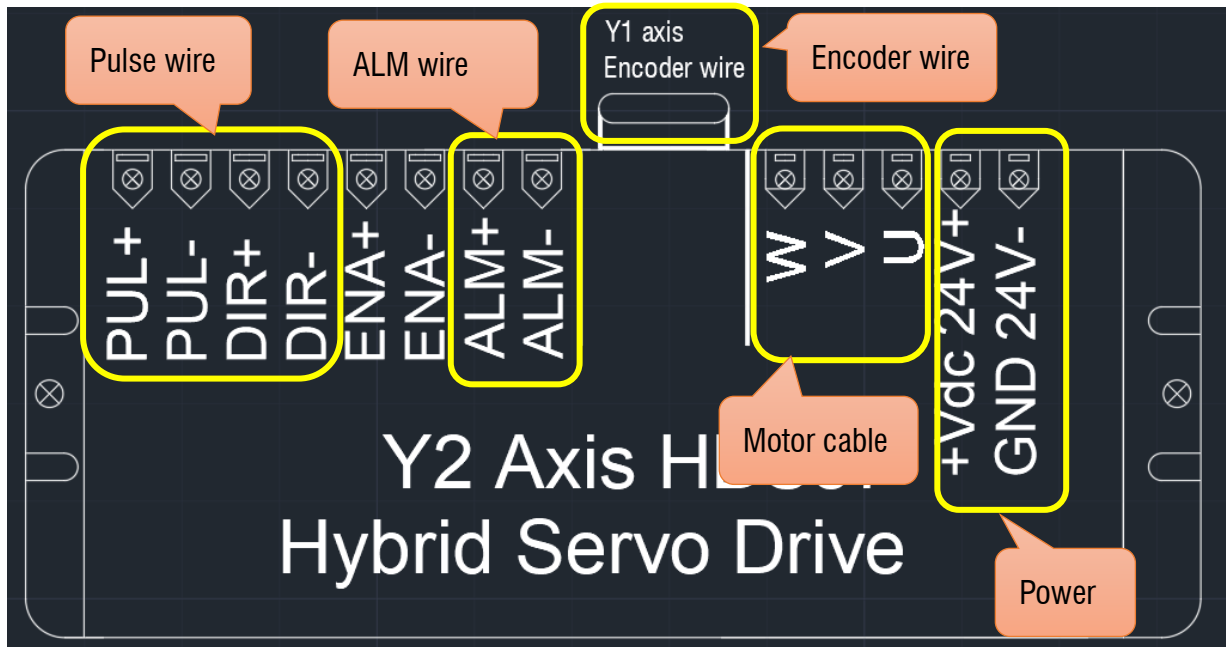


24V and 24G is connected to the power box

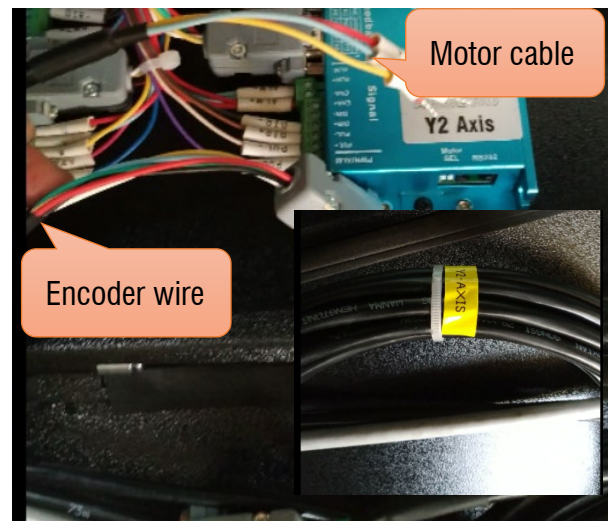
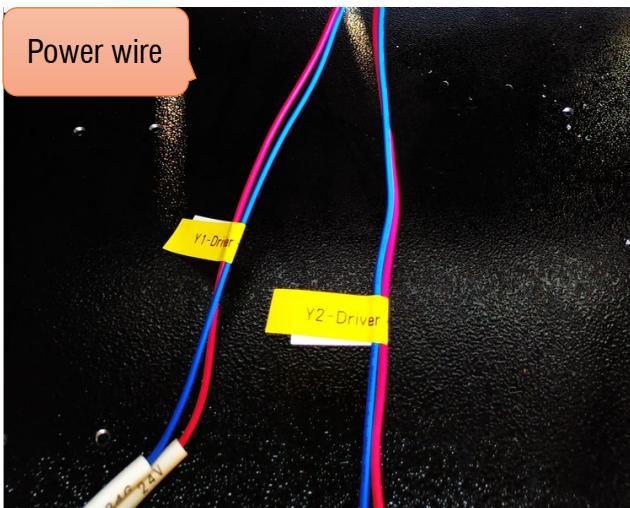
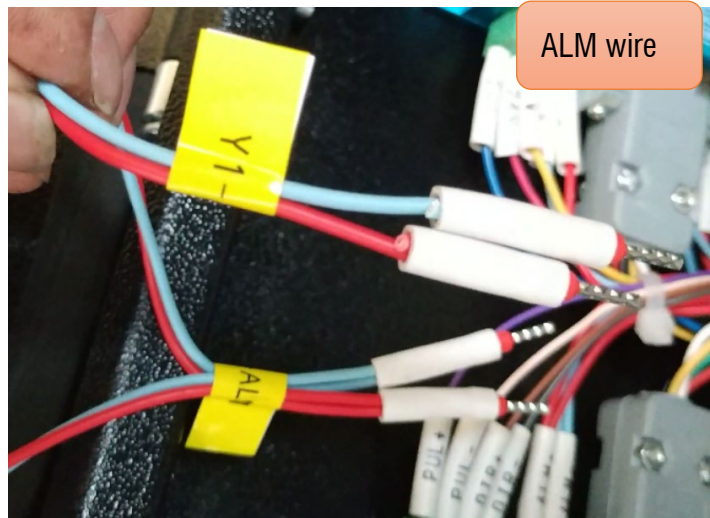
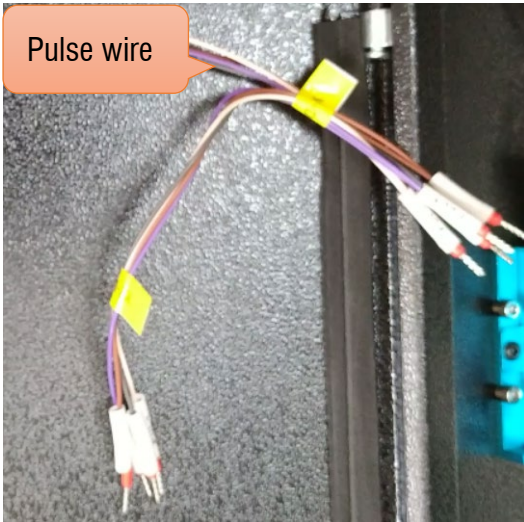
✳ Position2--DIV Board→Have a location to connect: To divider cable. As shown;



* Position3--Y1 driver and Y2 driver→Have 5 location need to connect; Each cable has a tag; please correspond to the drive connecting Y1 and Y2;



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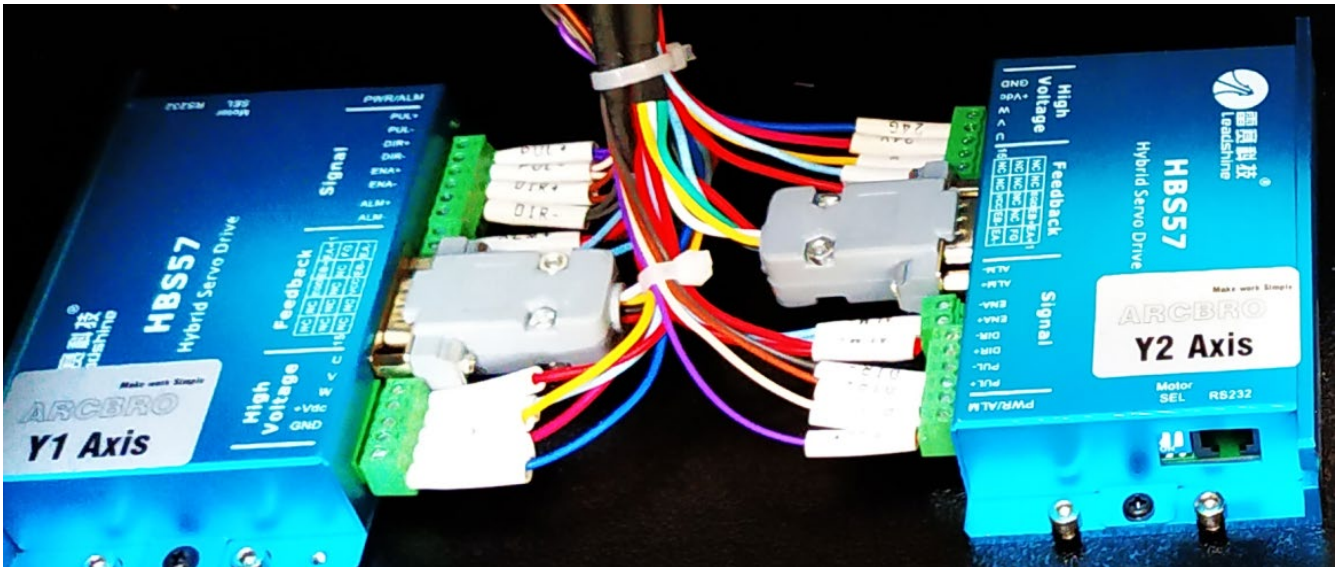


Note: The motor line and the encoder line are connected to the driver on one side; the other side is connected to the motor;

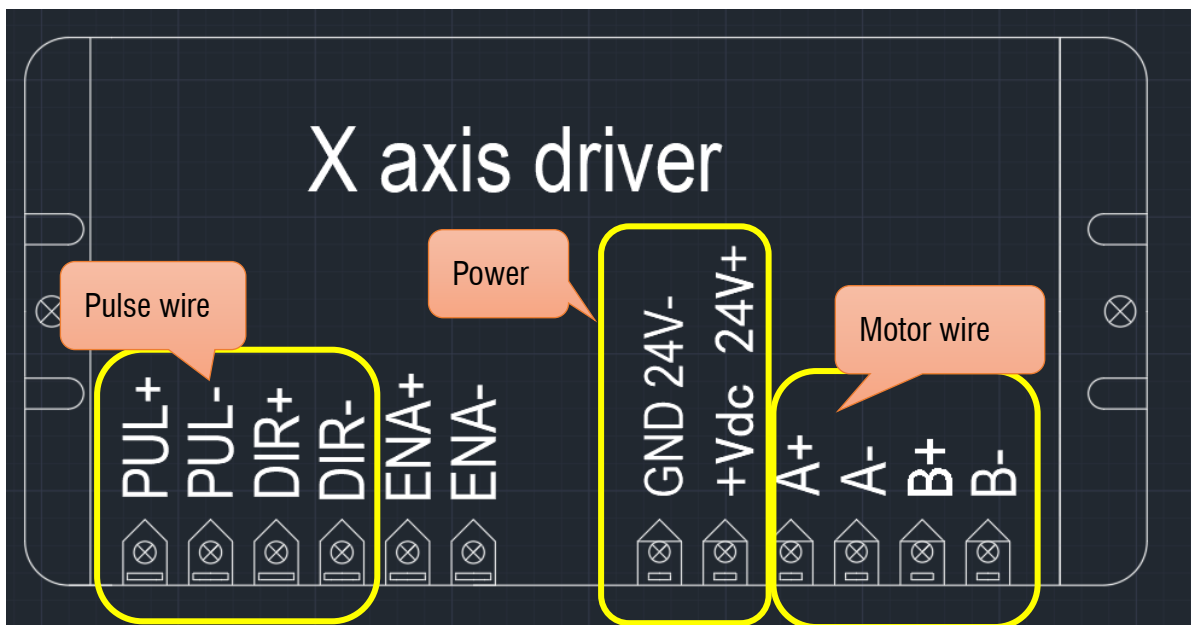
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The motor and encoder wires need to pass through the beam to reach the Y1 Axis and Y2 Axis on both sides;

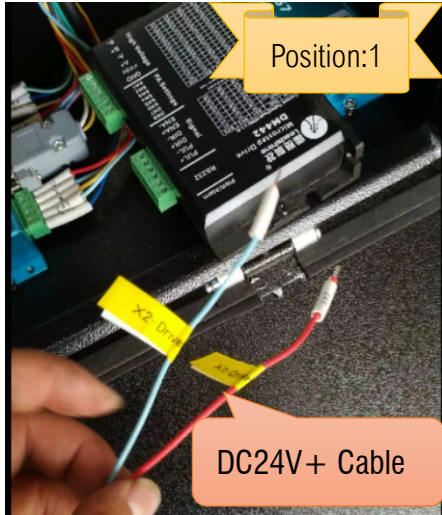
Wiring display for Y1 driver and Y2 driver:



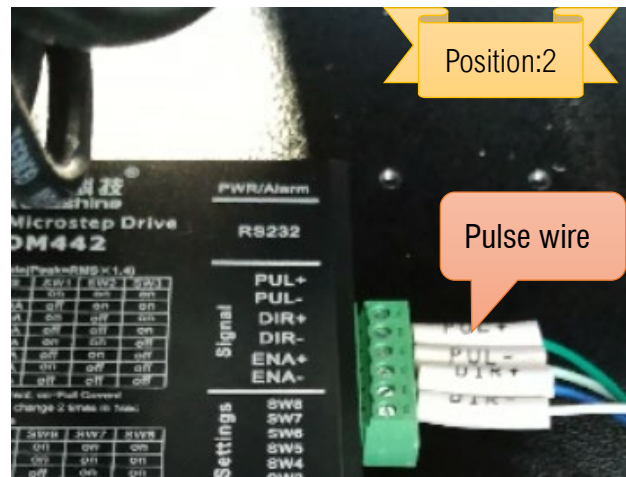
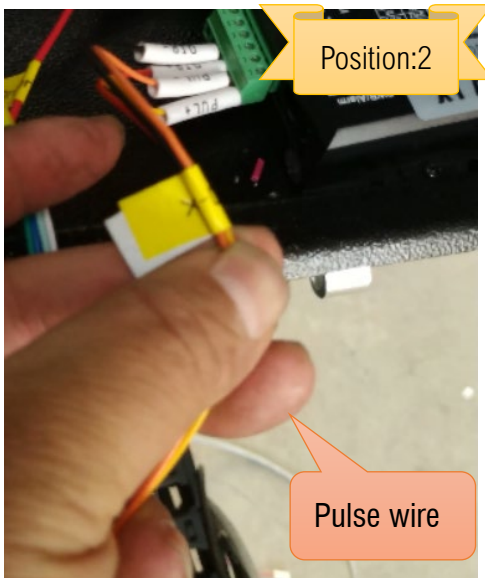
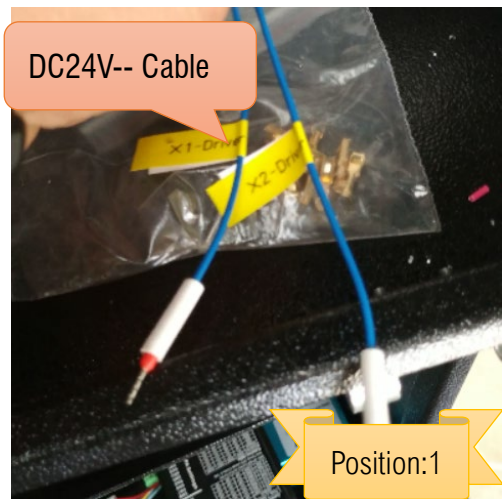
* Position4--X1 driver and X driver→Have 4 location need to connect; Each cable has a tag; please correspond to the drive connecting X1 and X2;



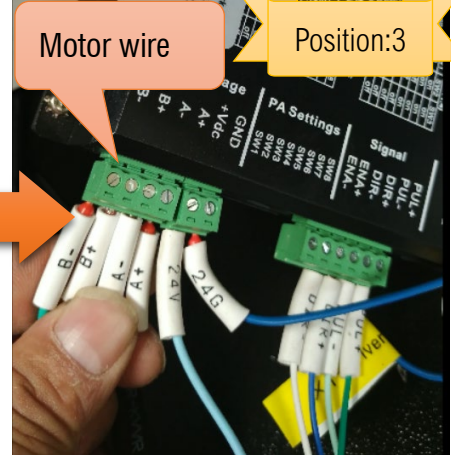
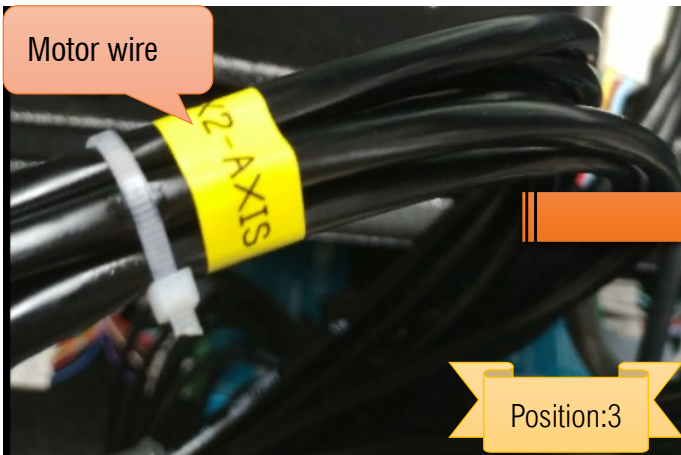
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Note: One of the power supply lines of the drive (blue) comes from the electrical box; the other one comes to the system box.



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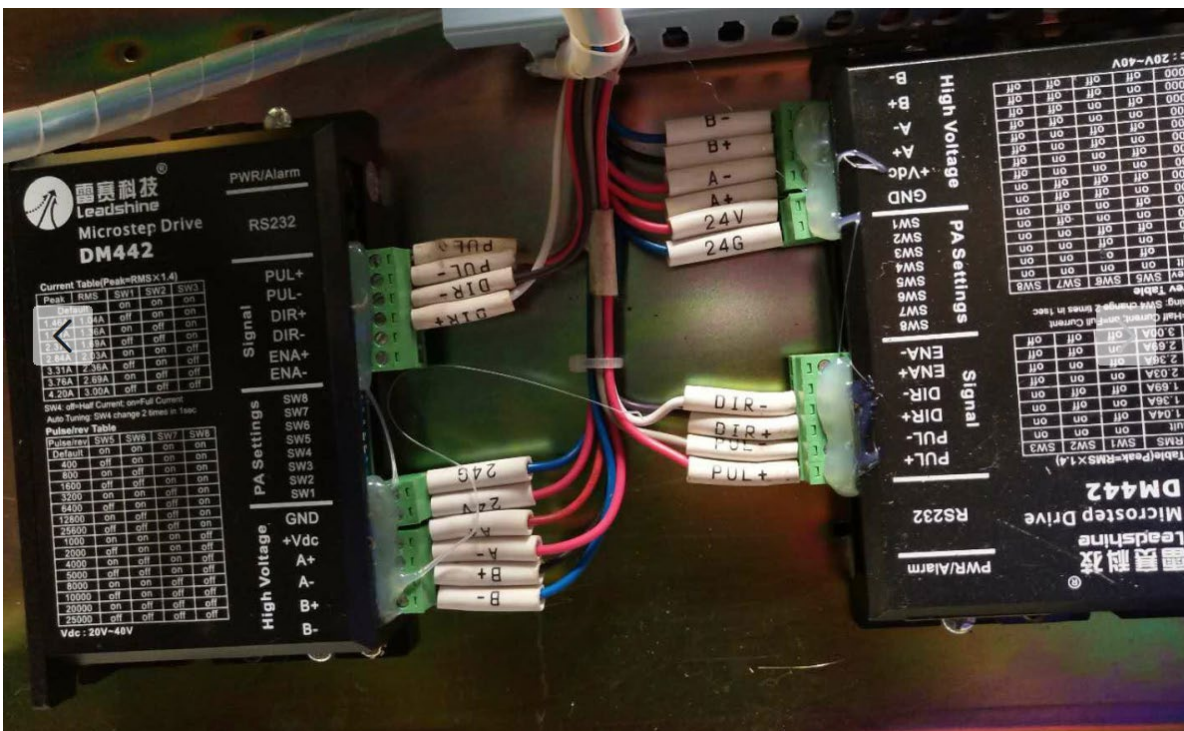


Note: The motor and encoder lines are connected to the other side of the drive to the motor; the motor and encoder wires need to pass through the chain to the X1 Axis and X2 Axis on both sides;



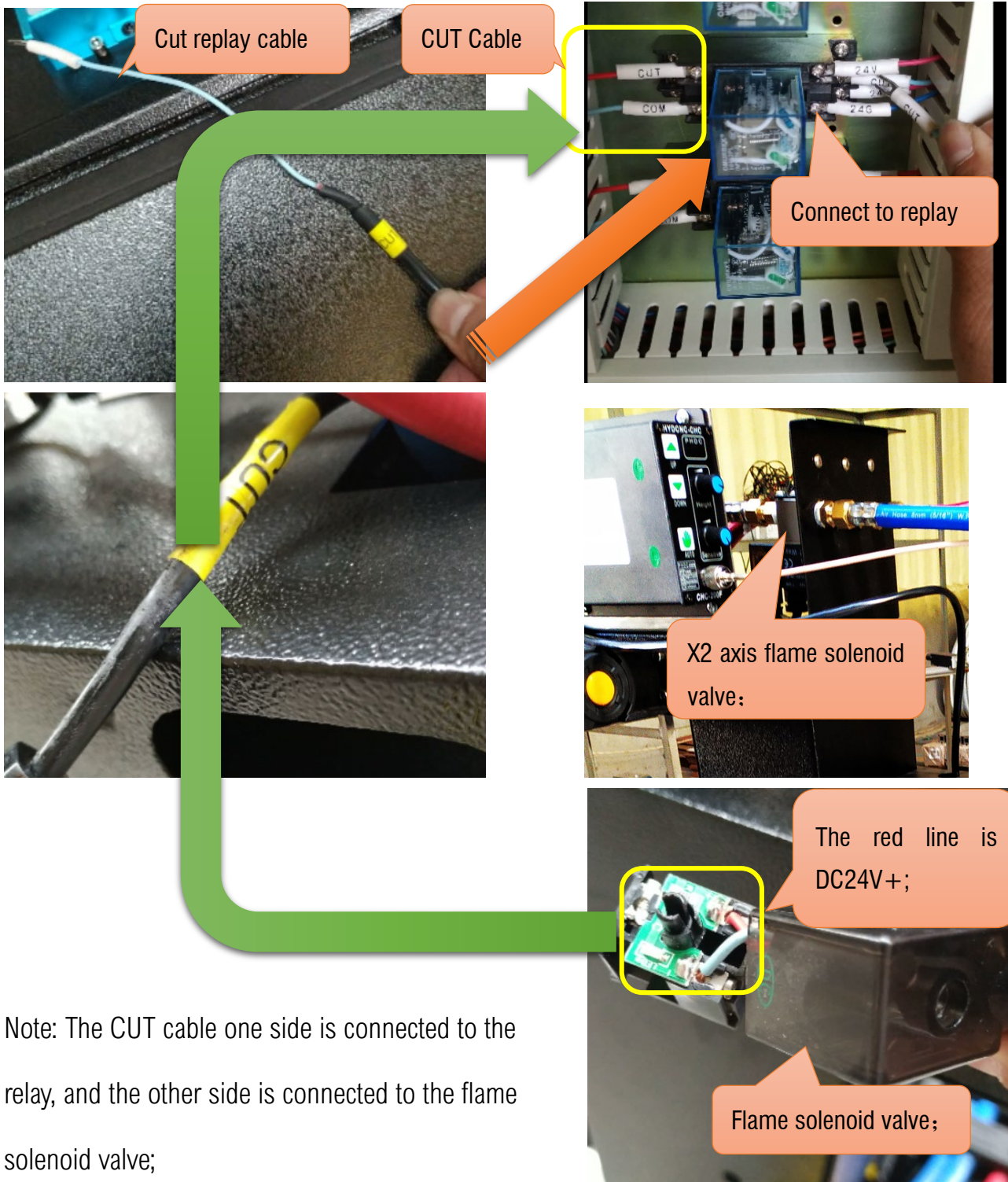
The display of the wiring of the X1 drive and the X2 drive is completed:

Note: Adjust the number of subdivisions of the X1 and X2 drives to 25600;



* Position5--Cut Relay→Have 2 location need to connect; Each cable has a tag;

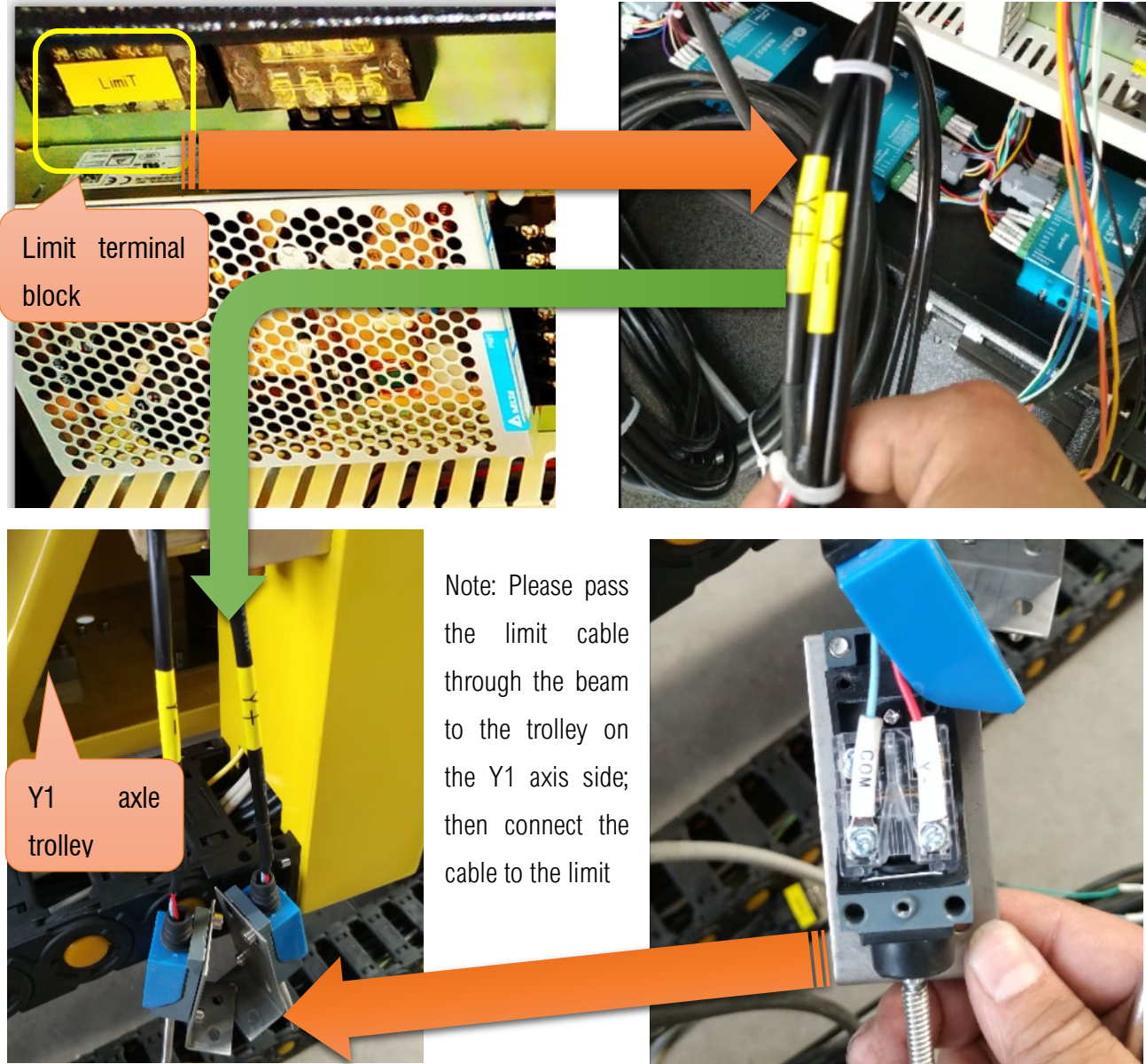
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Note: The CUT cable one side is connected to the relay, and the other side is connected to the flame solenoid valve;

* Position6--limit→Have 4 location need to connect;-- Limit of X axis and limit of Y axis; each cable has a mark;

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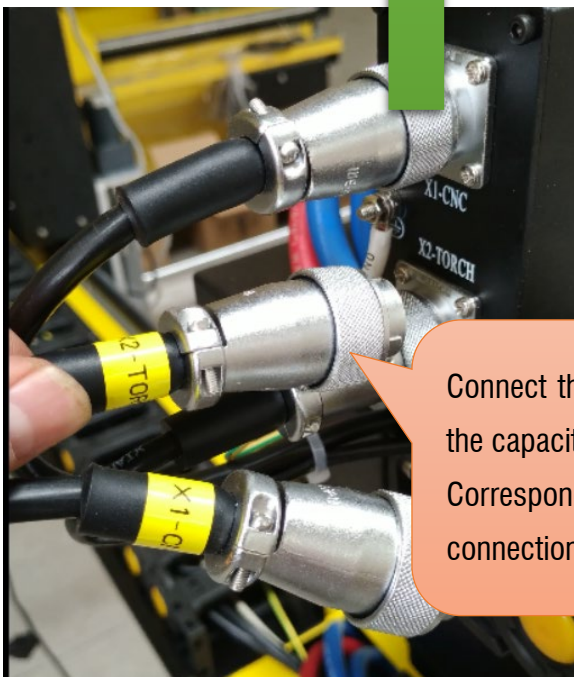
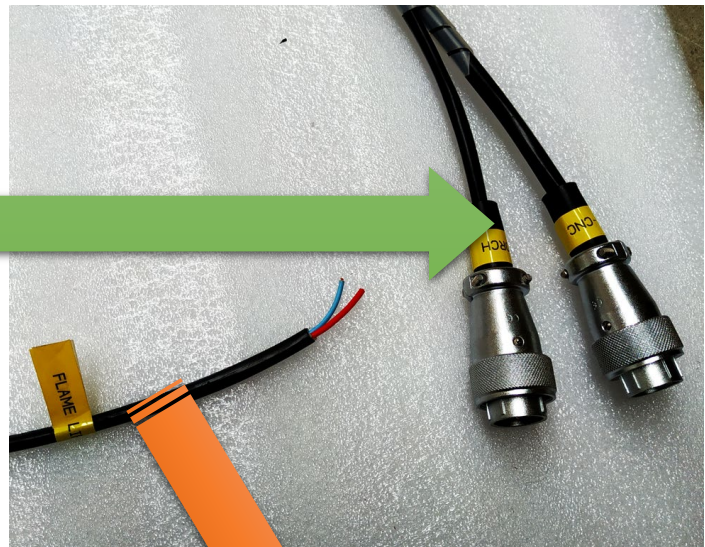
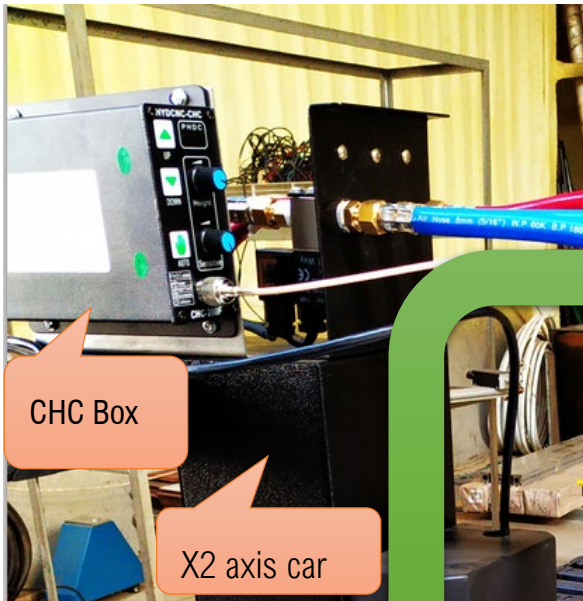
Note: Please pass the limit cable through the beam to the trolley on the Y1 axis side; then connect the cable to the limit

Note: The above is the limit of the Y axis; the X-axis limit installation method is the same, the cable needs to pass through the Cable drag chain and the beam when installing the X-axis limit;

➔ CHC wiring and flame lifter motor wiring;

✳ Position1 ➔ Install the CHC box on the X2 axis car; there are three positions to connect;

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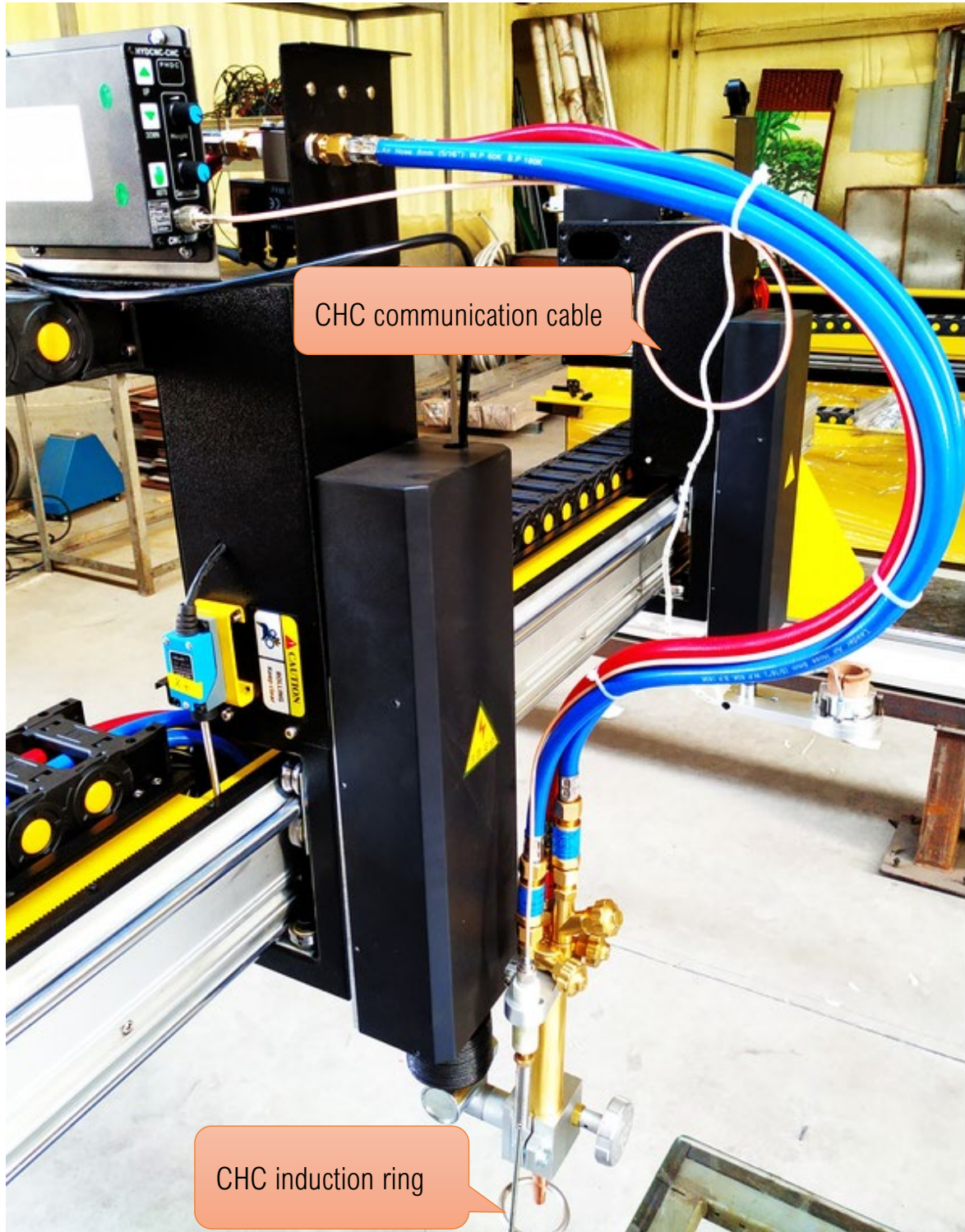
Connect the plug to the capacitor box; Corresponding connection plug



Wiring of the lifter; Red line connection to 1 PIN of plug; Blue line connection to 2 PIN of plug;

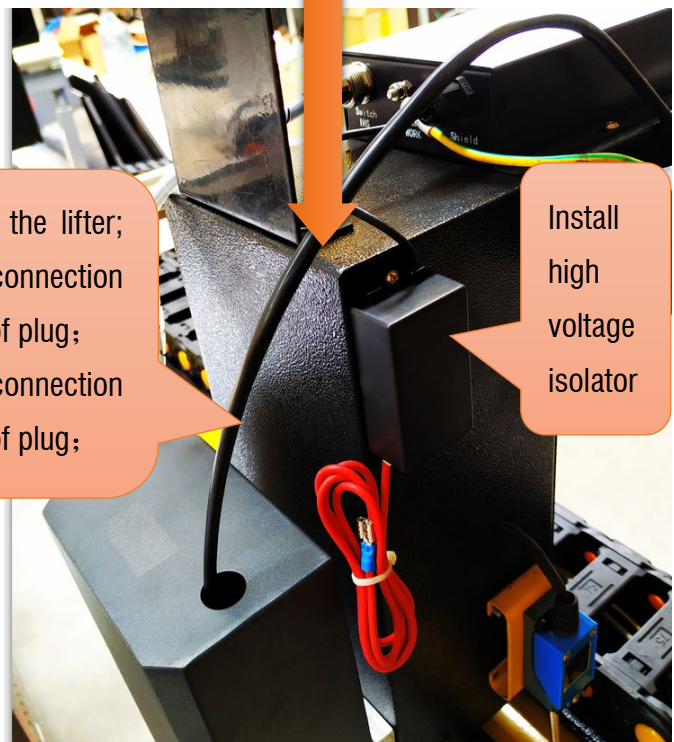
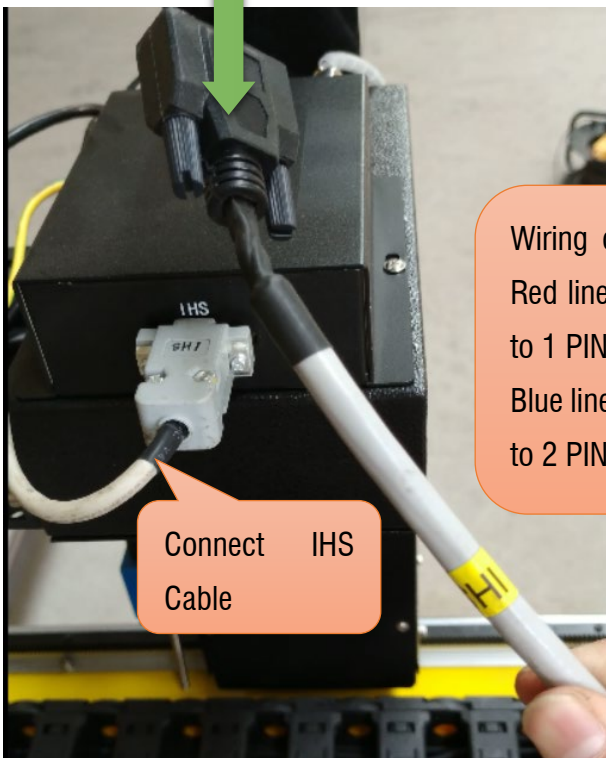
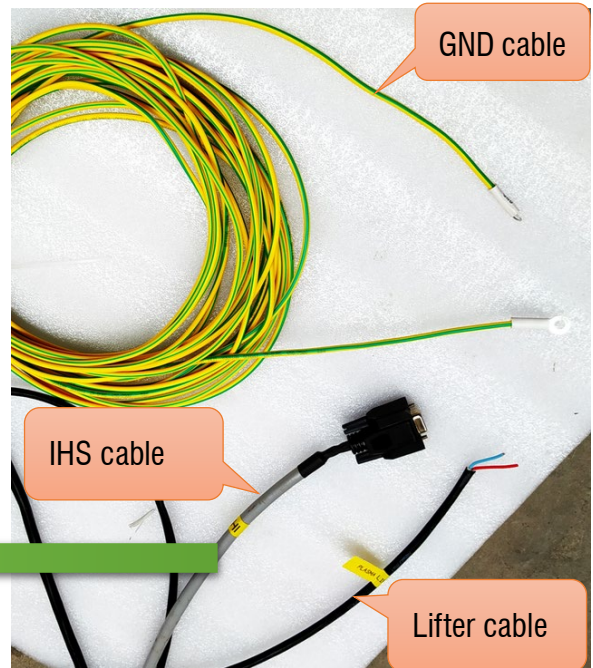
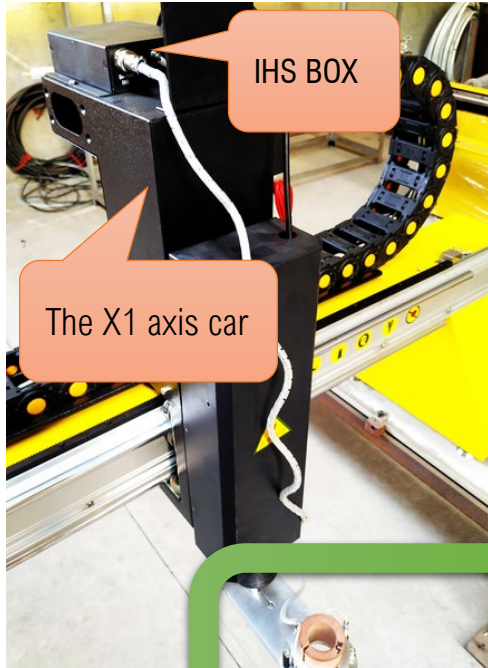
✧ Position2→Connect CHC communication cable and install CHC induction ring;

Note: When installing the CHC induction ring, the lower part of the flame cutting nozzle is lower than the CHC induction ring by 4-5mm;

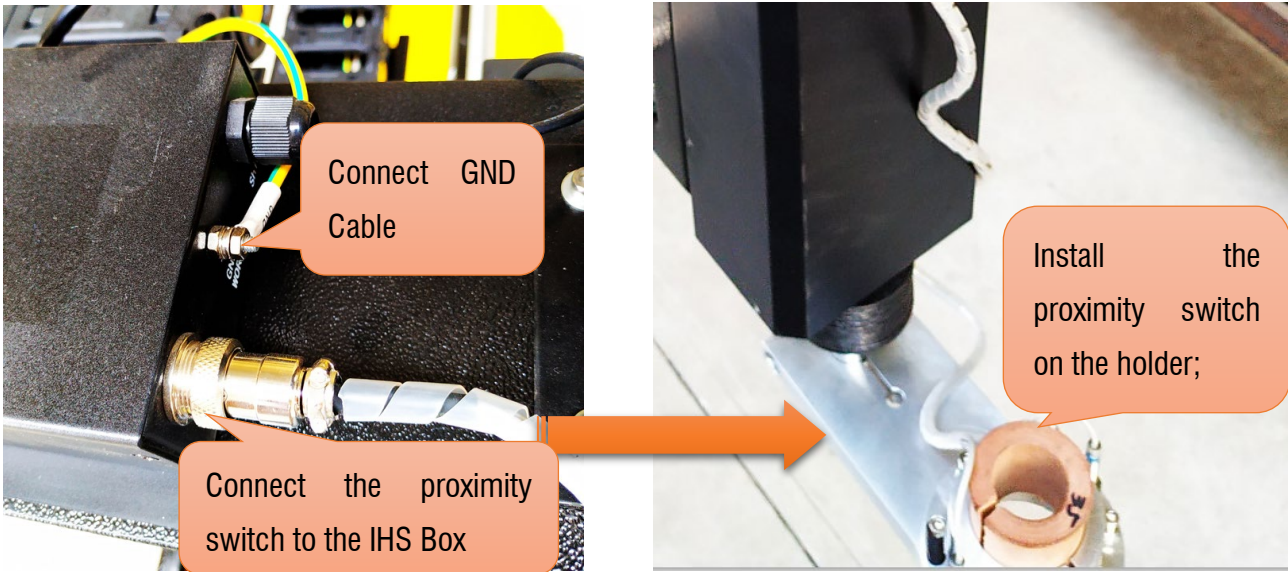


➔ IHS wiring and plasma lifter motor wiring;

- * Position1→Install the IHS box on the X1 axis car; there are three positions where the cable needs to be connected and two positions need to be installed;



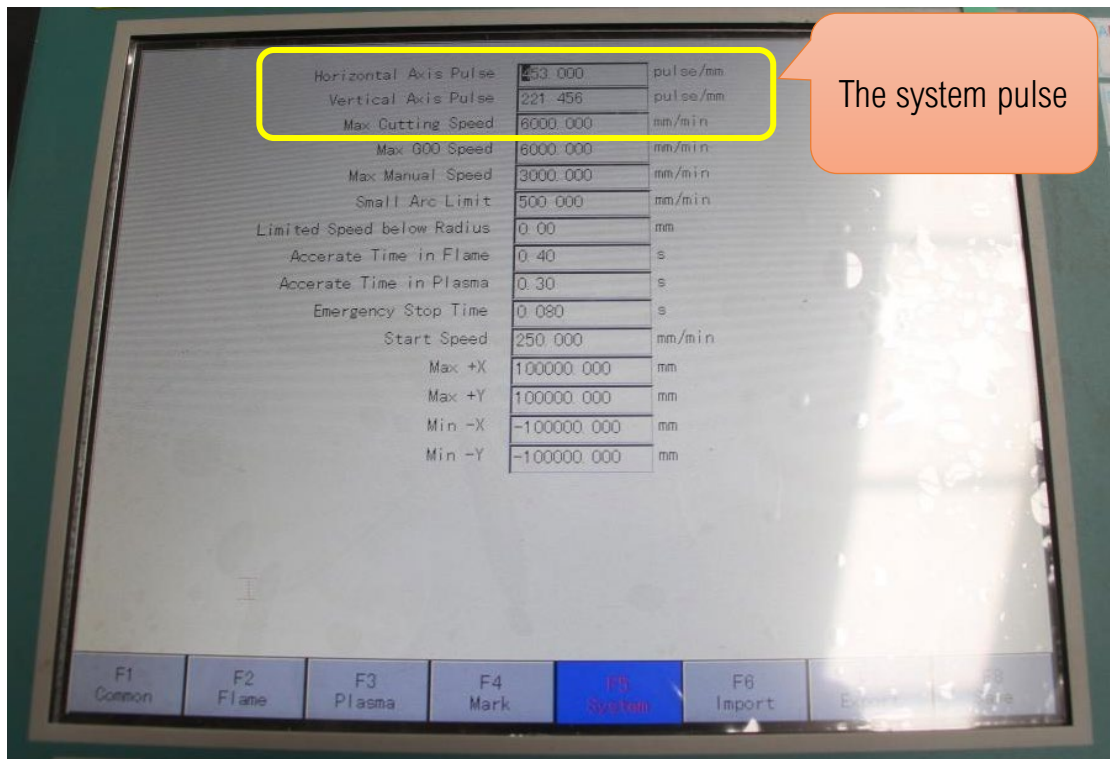
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Note: GND cable one end is connected to the IHS box; the other end is connected to the steel plate through the Cable drag chain and the beam;

➔ Adjust system pulse and test machine;

The system pulse is as shown:



Congratulations on your successful machine upgrade