Detailed Description of Programmable Motion Controller

DKC-Y110,Y120 Series

For the DKC-Y110,Y120 series, the specific model is different in shape, and the difference between single axis and double axis, operation mode and wiring mode are the same. This can be drawn from one another.
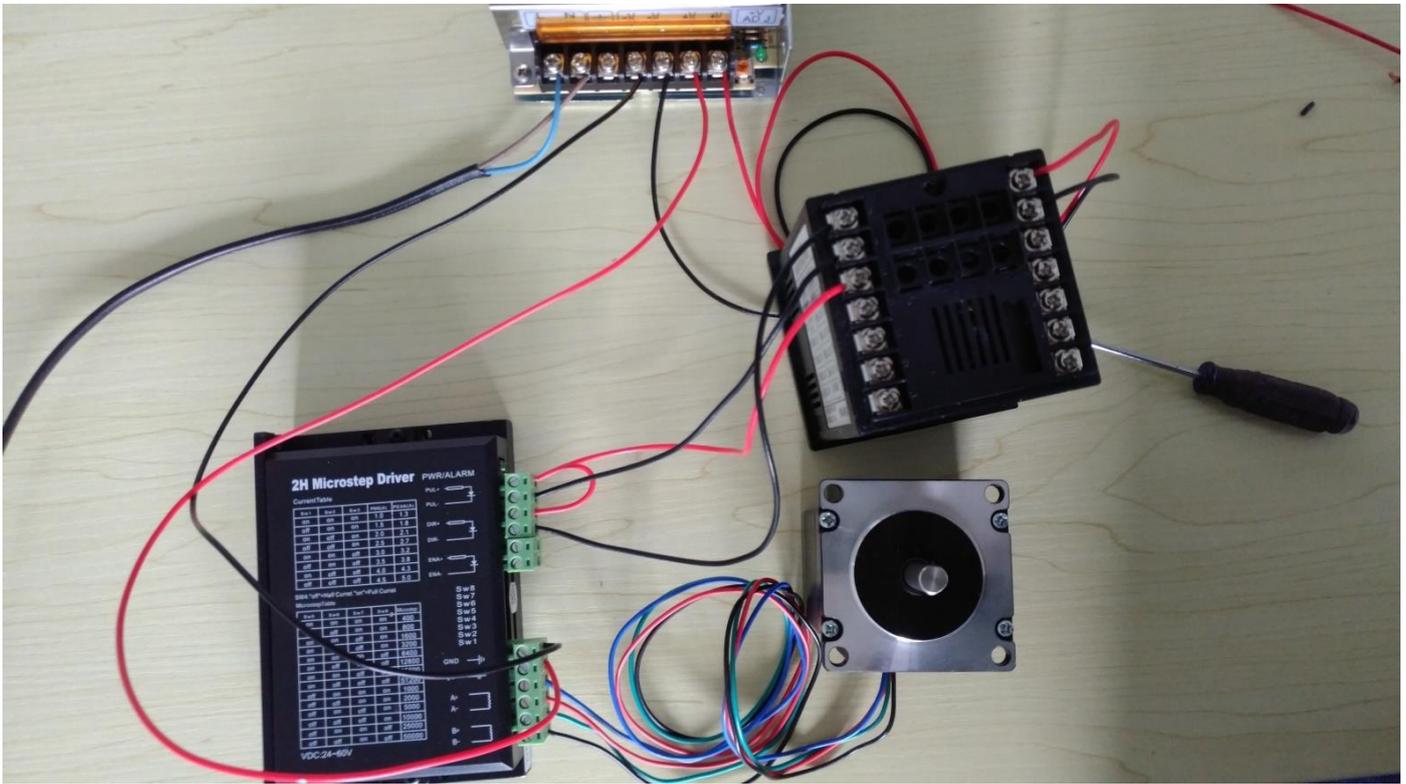
This specification is a supplementary description of the

standard specification, some of which may be repeated as required. This note is more accessible and avoids professional terminology.

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Chapter 1: Wiring Diagrams:
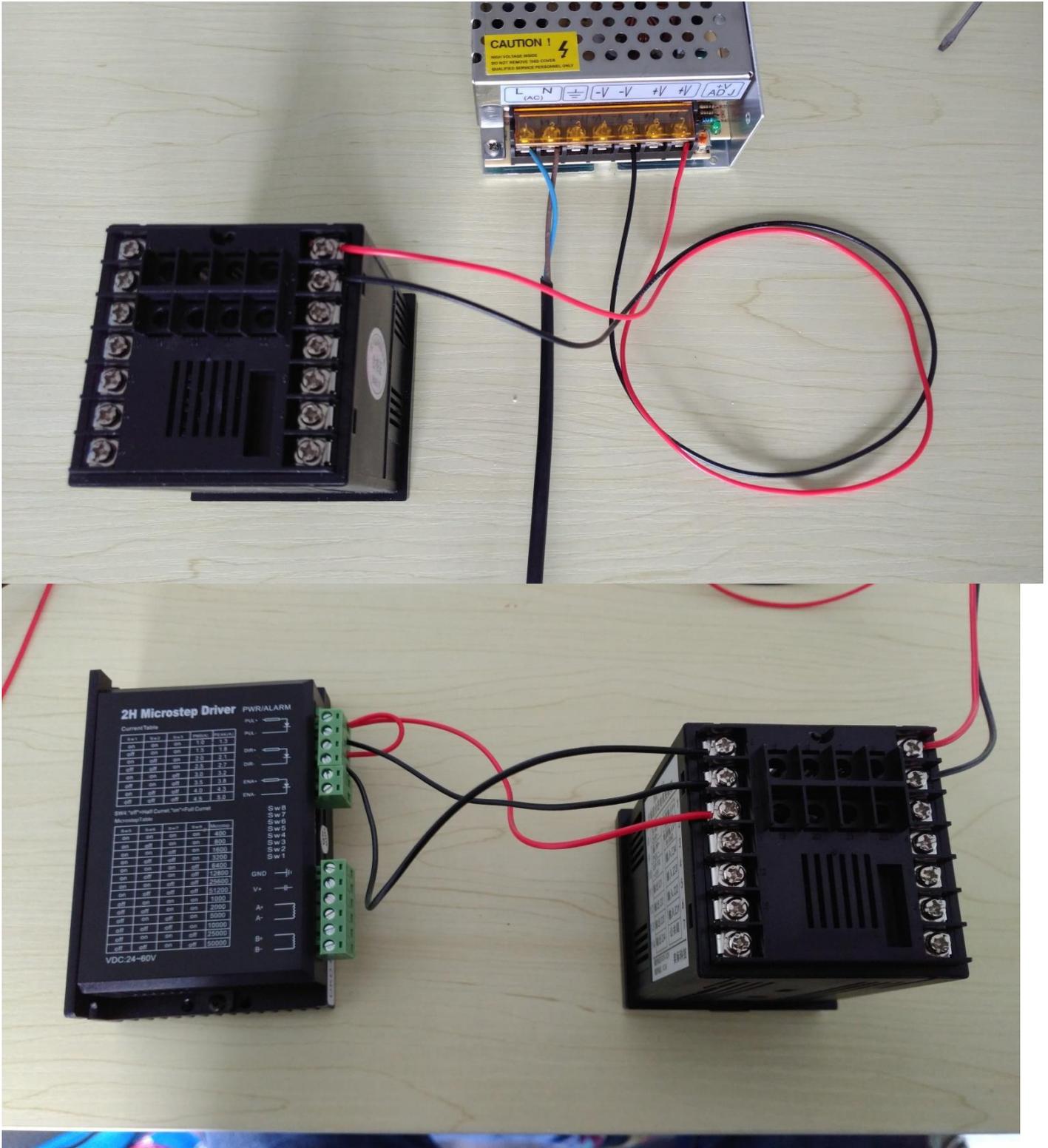
My company's controllers are all using the common sun connection method.

1.Driver signals are connected by 5 V as follows :(servo motor connection is similar, but each signal identification symbol is different, but the meaning is the same, there are pulse signal input port, and direction signal input port.）

The drive PUL +DIR + is connected together to the

5 V output end + the controller.The driver pulse

input (PUL-) is connected to PUL- controller

The drive direction input (DIR-) is connected to DIR- controller

 EN it's usually empty

2.Driver signals are connected by 24 V as follows :(servo motor connection is similar, but each signal identification symbol is different, but the

meaning is the same, there are pulse signal input port, and direction

signal input port.）

The driver PUL +DIR + connected together to the power

input port of the controller for 24 VPUL +DIR +. The

driver pulse input (PUL-) is connected to PUL- controller

The drive direction input (DIR-) is connected to DIR- controller

EN it'
s usually emptyNote that the segment of the driver should be adjusted
to 16 subdivision(3200) or 8 subdivision (1600)
current to the rated current close to the motor.
(requires a slower speed to adjust a larger fine fraction)

After the servo motor driver is connected, it also needs to be set to

position control mode, pulse + direction control mode, and electronic gear,

and signal type selection collector open circuit input and so on (each

driver specific setting method is different according to the driver usage

instructions)

After connecting the line, we need to confirm the inspection repeatedly.

Then switch to manual mode press left and right key to see if the motor

can turn normally and turn on, as shown in the diagram [running status:

running] you need to press stop key to pause

The controller displays [running status: pause], this

time you can press [menu] key to enter the main menu,

press up and down key to move cursor rotation [manual

mode] press [OK] key to enter manual mode, In manual mode,

you can directly press left and right keys to achieve

manual test of motor rotation.

If the motor does not turn frequently asked questions:

1,   Check that the connection between the controller and the drive is correct.

2，   *The connection between the driver and the motor is correct.*

3，   *Is the driver set correctly (step subdivision, current, servo is each parameter)*

4，   *Whether the power supply to the driver meets the requirements. (Note that 86 motors require more than 48 V of voltage)*

5，   *Whether the voltage required to confirm the*

impulse signal of the driver is 5 V, or 24 V. If the

motor is a motor, it is always a one-way problem:

1，   *Check that the direction signal is connected correctly*

2, Check whether the controller mode of the driver is consistent

with the controller, that is, the control mode of the pulse +

direction, if the motor jitter is severe, the running direction is

random and common problems:

1, Check whether the motor line connection is correct and whether the

motor line connection is reliable. This situation is generally caused

by the lack of phase of the motor,

2, If the motor connection is normal, it may be internal damage to the
driver.

Chapter II Editing Procedures:

After the motor test can run normally, press [menu]
key to enter the main page as shown in figure: press up
and down key to move cursor to [system parameter]
position, press [OK] key to enter setting page, cursor
move to [program edit] and press OK key to enter. (Home
page -> system parameters -> program editing)
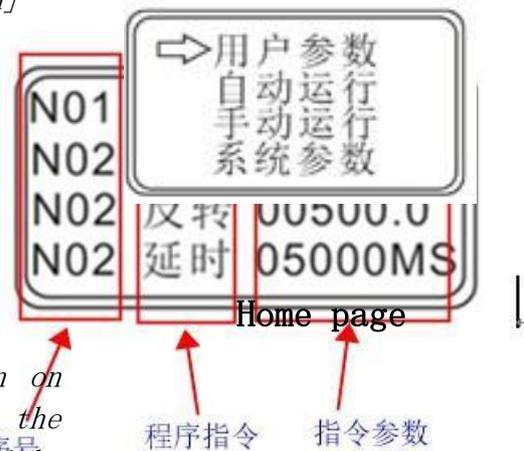
After entering the program editing page. (as shown on
the right), after entering, the cursor moves to the
[program instruction] position by pressing the [right
direction key] cursor in the ordinal position, and then
presses the [right direction key] cursor to move to the
[instruction parameter],
Position press up and down left and right key to adjust the parameters, and then press
[OK] key to save and save
At the same time, the cursor automatically jumps to the next line. Repeat the above
operation to complete all program editing input.

How to run the edited program. After editing, press
the menu key to return to the home page, press the up
and down key to move the cursor to the auto run
position press
[Confirm] key entry. After entering the auto-run page, you generally need to click

[Reset] key, reset the program.Note that the reset here is a program reset, not a motor reset.Then press the Run button to run the program.(Note again that the program runs here, and the program does not run for motor rotation
Move, this must be clear.)

Chapter III Frequently Asked Questions:

FAQ 1: insert, where is the delete key?
 The [run] key in the program editing page is the insert function key, and the [reset] key is the delete function key

FAQ 2: why didn't the program editing page I saw show the functional instructions I needed?
 This requires the cursor to move to the [program instruction] position and press the [upper direction] or [lower direction] key repeatedly to pull out the required functional instructions. After pulling out the instruction, the cursor moves to the required parameter adjustment to complete the input of an instruction.

FAQ 3: why do I edit the program after the power off the program is wrong. Or is it a procedure?
 This is because the program is not saved, which is to edit or modify an instruction by pressing the OK key to save, remember

Live is each need to press the OK key.

FAQ 4: why does the controller display speed after power off and then power on?

This is because the program does not run after electrification, showing the default speed. Only after the program runs and runs to the speed instruction, the speed displayed by the system will be updated to the set speed.

FAQ 5: how to operate the power back to zero?

Power back to zero this function is in (home page-> system parameters-> parameter settings-> power back to zero is) here, and then in the input port 1 to a normally open limit switch can be. There is no need to set up in the program.

Y120 only because the power back zero in the biaxial system can not meet the requirement of biaxial return zero, the back zero instruction can be used at the beginning of the program.

FAQ 6: how do I need to return zero action in the program?

Y120 this has a special back zero command, you can use it directly,
Y110 can be implemented using the following instructions:

```
Speed 3000
Reverse 000000
Input 10 0000
Stopping 000000
Jump 01 0000
```
Conclusion

FAQ 7: why is the relay or solenoid valve connected to the output not controlled by the program?

Relay (solenoid valve-like connection) coil at one end of the power supply 24 V positive pole, the other end connected to the controller output. This uses output instructions to output low-level relay suction, output high-level relay release.
For example:

Output port 1 output low level relay suction 001)
Output port 1 output high level relay release 001).

Note: the DKC-Y120 output part belongs to the independent power supply, so the interface also needs to connect the power supply 24 V positive and negative, the output port can output the action.

FAQ 8: what kind of sensor can the input port connect, how to connect?

The type of switch requirement is: DC 24 V three lines often open NPN (simple verification method is to detect object signal line output 0 V, no object output 24 V)
The connection
mode is:
brown power

supply
Negative blue power supply
The black signal output, the
common end of the controller's
input port controller is not
connected
Note that the sensor shares a power supply with the controller.

FAQ 9: why do I enter the user parameter to display all' end'?
This is our default setting, which needs to be set in (home page -> system parameters -> parameter settings -> user definitions) before it is displayed.

FAQ 10: what if I forget to set the password?
Forget password can only be restored factory settings. This clears all data, including passwords. The way to restore factory settings is to hold down the left key, power on, and let go after the word is displayed.

FAQ 11: how to do the button next time only once, even if the long press is also an action once?