



ASS190 (ver: AMOSASS190SM20150814-01)

Slide Stainer Service Manual


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ASS190 Slide Stainer

Service Manual

1: **General Provisions**

The Service Manual of the instrument is compiled according to its structure and characteristic.

2: **Configuration**

The instrument provides the design of AC110V/220V, composes of tank, temperature controlling and engine movement.

1、 Tank

1): 2 pieces of water tank.

2): 17 pieces of reagent tank.

2、 Engine movement

1): The motor controls the up and down movement step-by-steps.

2): The motor controls the left and right movement step-by-steps

3: **Distribution of Liquid Tank**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Water	Water	Hcl- alcohol	Hematoxylin	Eosin	Dimethyl benzene	alcohol										Dimethyl benzene		
						100%	95%	85%	70%	75%	85%	95%	100 %					

Note: The Beginning tank is from Tank 6 & Tank 7 (the basket is staying in tank 6 to waiting to run the program 1 and other basket in tank 7 wait to run program 2). Press key **RUN**, the system will test the basket in the beginning tank automatically or not, if the two baskets all stay well in the Tank 6 and 7, the instrument will run the program 2 firstly, and then run the program 1. The system provides eight programs be edited. (Note: when programming, make sure the basket in tank 6 running don't overtake the basket in tank 7 to avoid getting stuck, if meet the stuck, the long buzzer rings will remind user. So, PLEASE NOTE:1. Staying time of basket in the tank 6 is more than tank 7, the others time

programmed should be same.

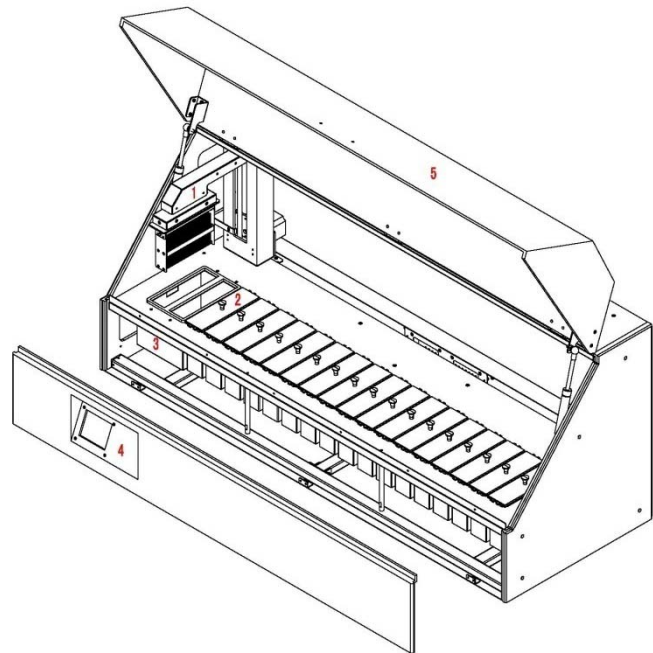
2. The finished tank should be not same.

3. Water in tank 1 for program 1 , Water in tank 2 for program 2.

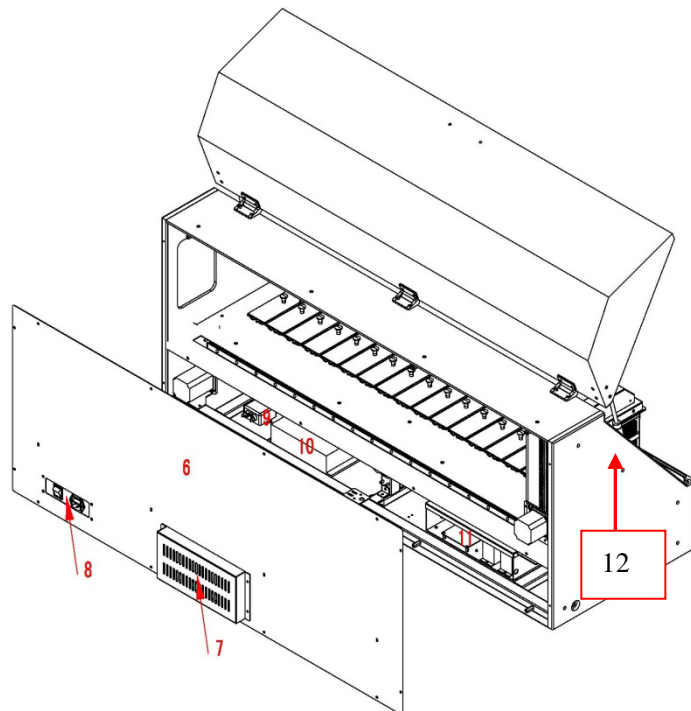
4:

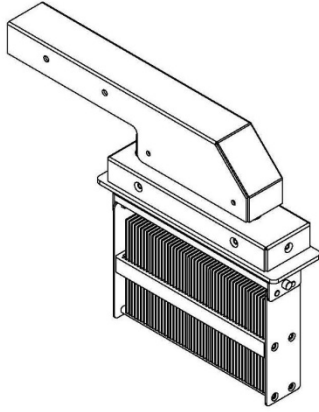
Exploded View

- 1) Basket Accessory
- 2) Sealing cover
- 3) Water tank
- 4) Display and push button
- 5) Organic glass cover

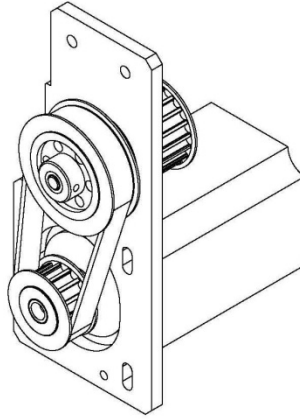


- 6) Back cover plate
- 7) Activated carbon
- 8) Switch and power socket
- 9) Filter
- 10) Power switch
- 11) Control board & Driver
- 12) Housing

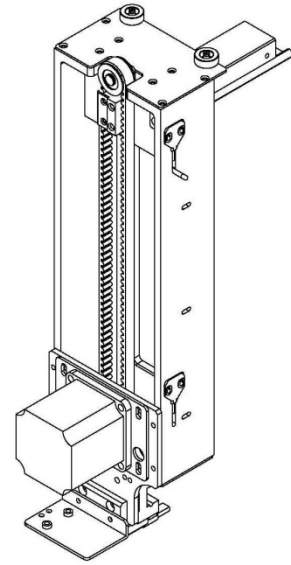




Hanging basket assembly



Movement assembly



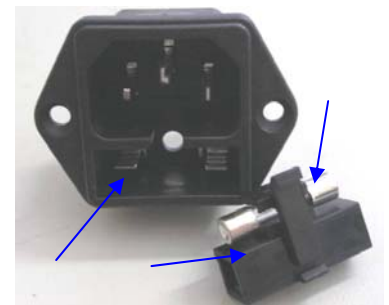
5: Troubleshooting

1. No any answer when machine starts.

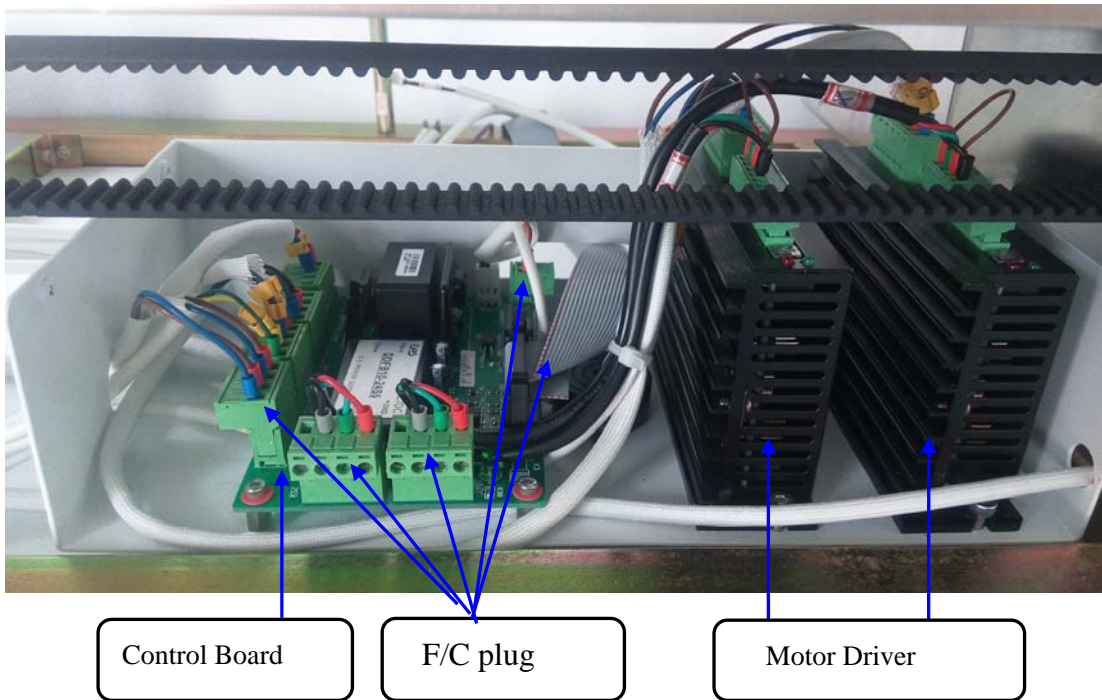
- 1): Tests the power cord connecting well and fuse well.
- 2): 5A fuse blows out, please replace it:

Replace the fuses :

- put the fuse (1) in the installation part (2) and then insert the installation part into the socket(3).
- Cut off the power supply and pull out the plug before change the fuse.



- 3): 24V switch power supply has no output signal, please replace it.
- 4): Flat Cable(F/C) plug is loose(Refer to below Pic.) . Tests each F/C plug whether to fixed or not: Please pulls out each plug and re-insert them, then pulls each wire on F/C plug gently by hand. If looseness, please fix them again with screwdriver.



Control Board

F/C plug

Motor Driver

5): UPS has no output signal.

Inspection Method: Test if any voltage from output with multimeter .

2. The hanging basket is out of order on up and down or left and right movement

1): Stepper Motor driver is damaged or the related wire is disconnection (As shown on Pic.)

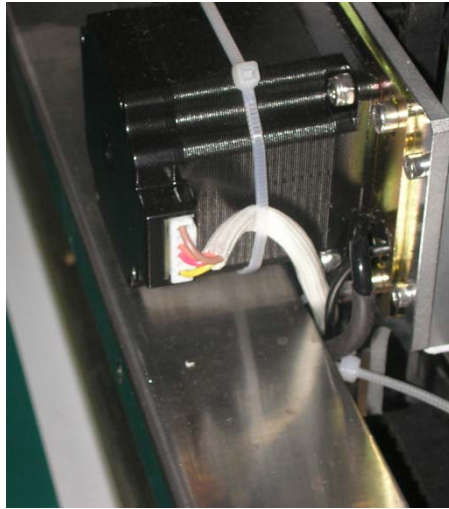
Solution :

Test if the wire connecting between motor and driver , main board and driver is disconnection , clear this kind of trouble and then check if anything wrong with the driver .



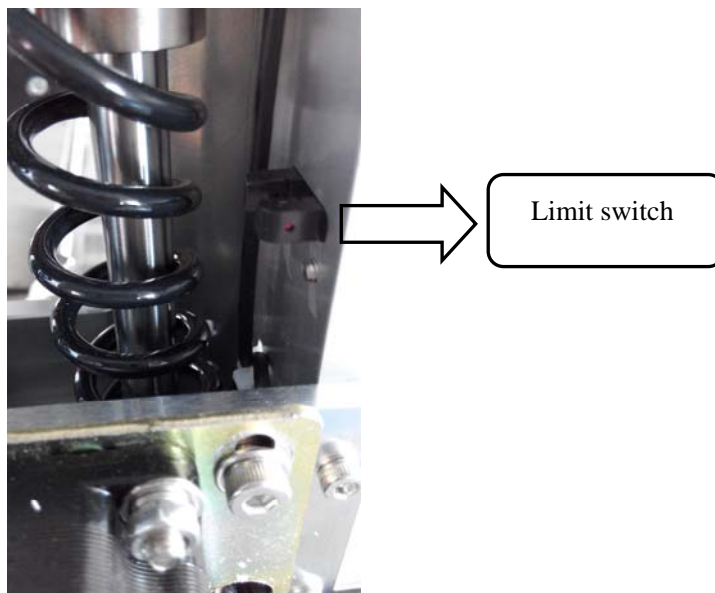
2): Motor is damaged(As shown on Pic.)

Solution: Check if the motor is short circuit with multimeter . If yes , please replace a new one .



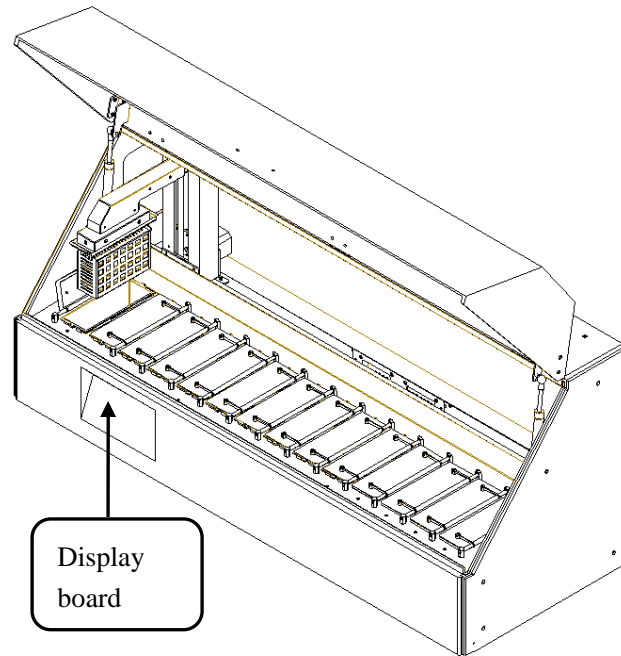
3. The basket can't stop move up or down , and makes intense vibration sound .

The up limit switch or down limit switch fixed on transmission block body is broken , don't make limited effect . Please replace a new one .



4. The basket doesn't run as program setting

The display board may be broken , please replace the display board as below picture .The program is stored in display board .



5. The water tank don't fill in with water .

It may caused by :

- a. Water supply interrupts . Solution: check the water supply
- b. It is failure with the wiring of supply electrovalve. Solution : Check the wiring with multimeter and clear the trouble .
- c. The supply electrovalve is damaged . Solution: replace a new one .



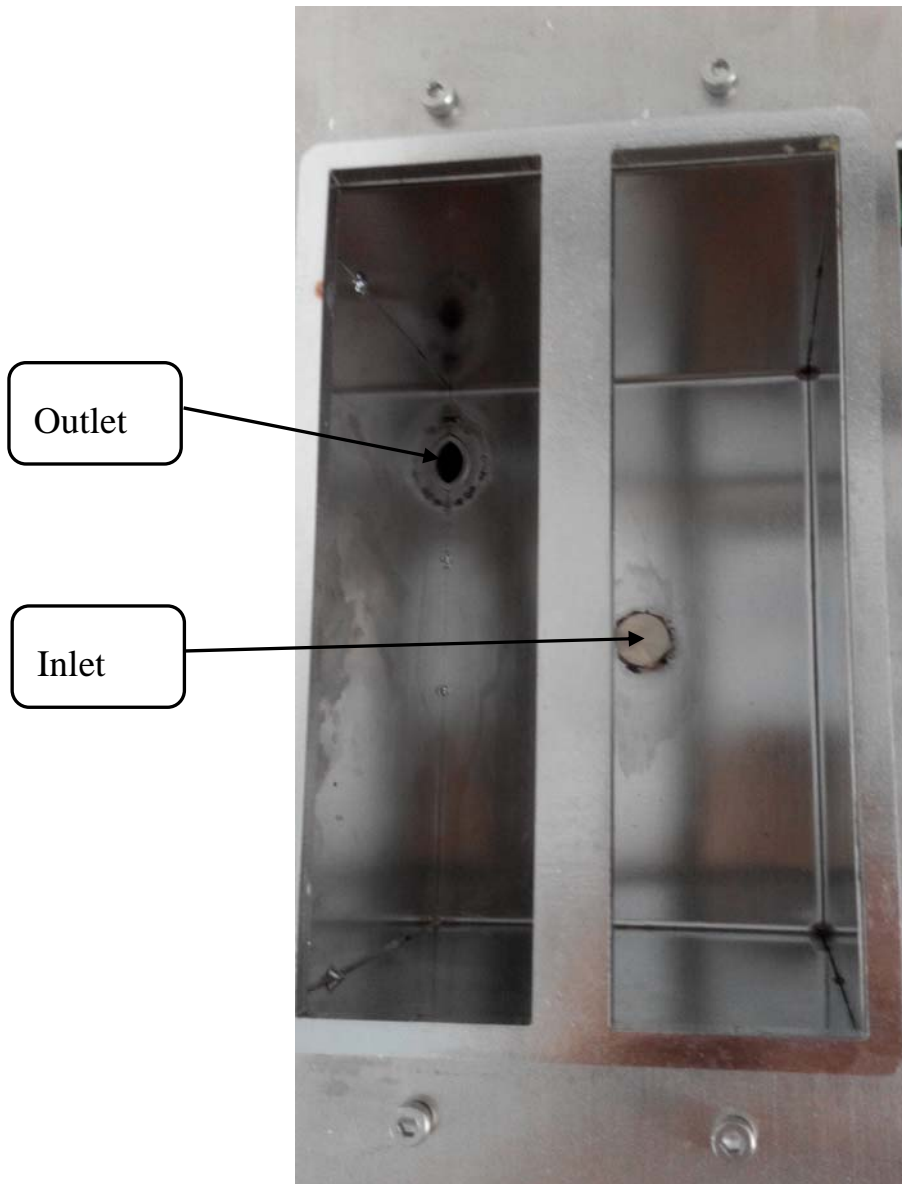
Supply electrovalve

6. Water level in the water tank is too low which can not wash the slides clearly .

When the speed of input water is faster than drainage , the water in the tank can be accumulation :

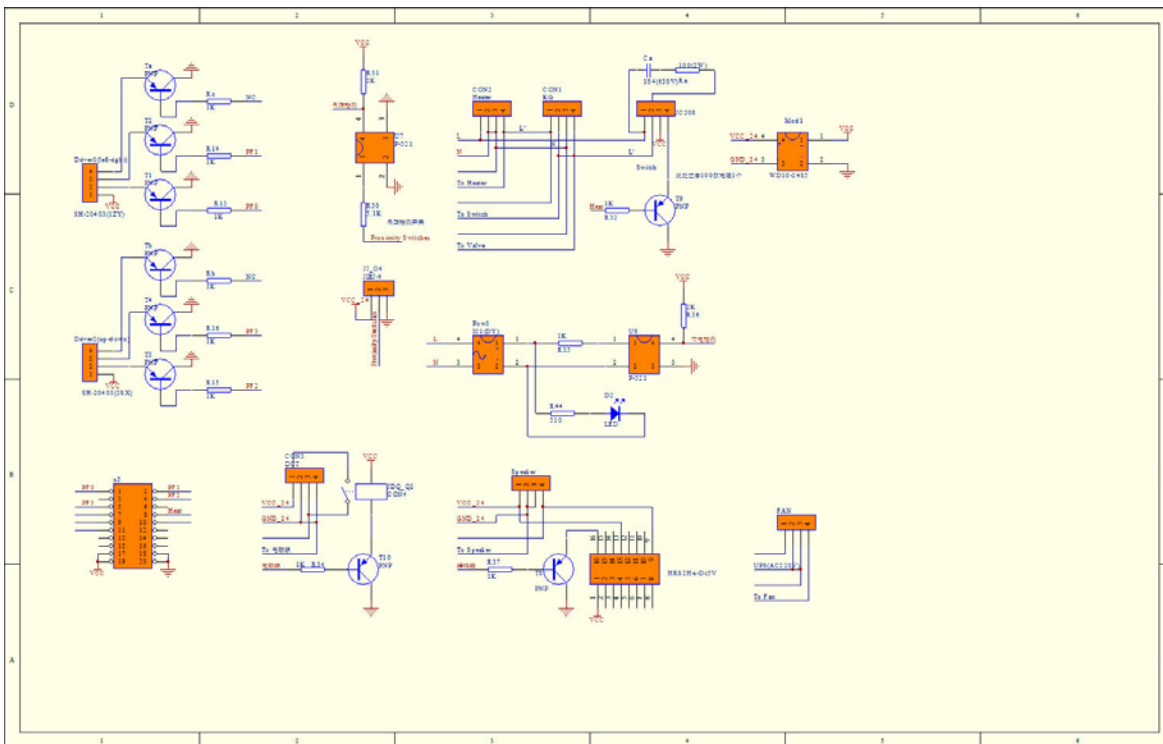
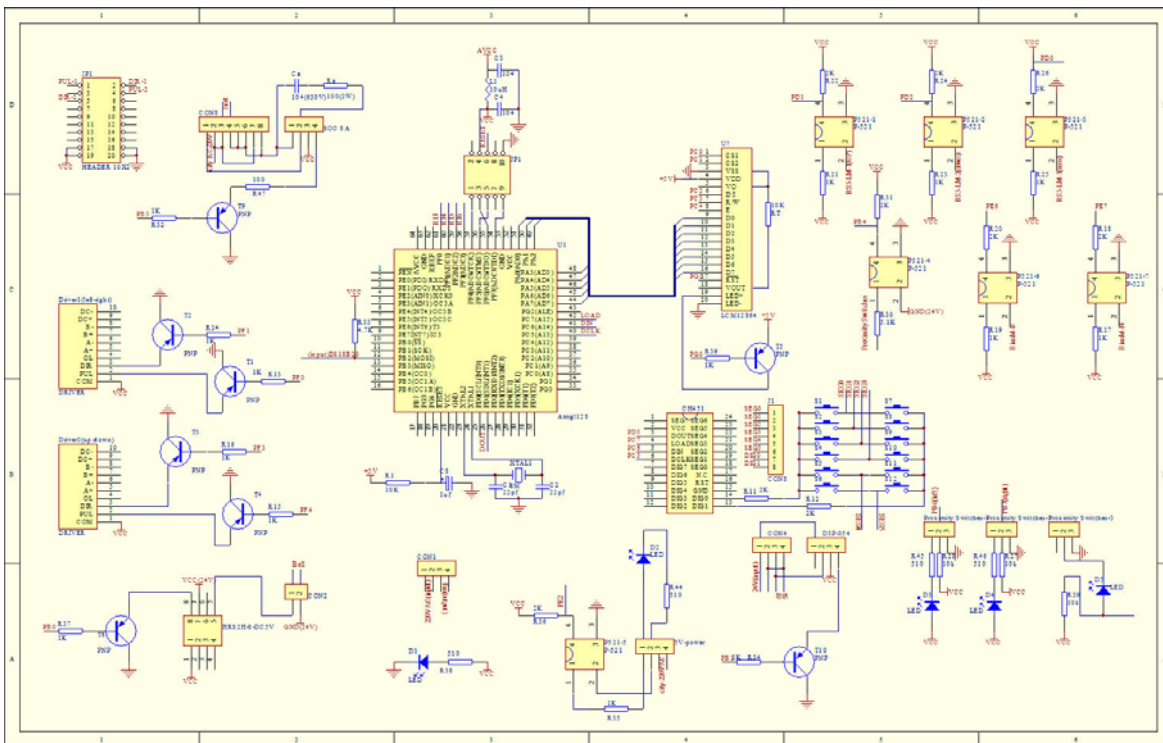
a : Water pressure is too small . Solution : increase water pressure

b: The drainage hole is too large . Solution : reduce the size of drainage hole .



6:

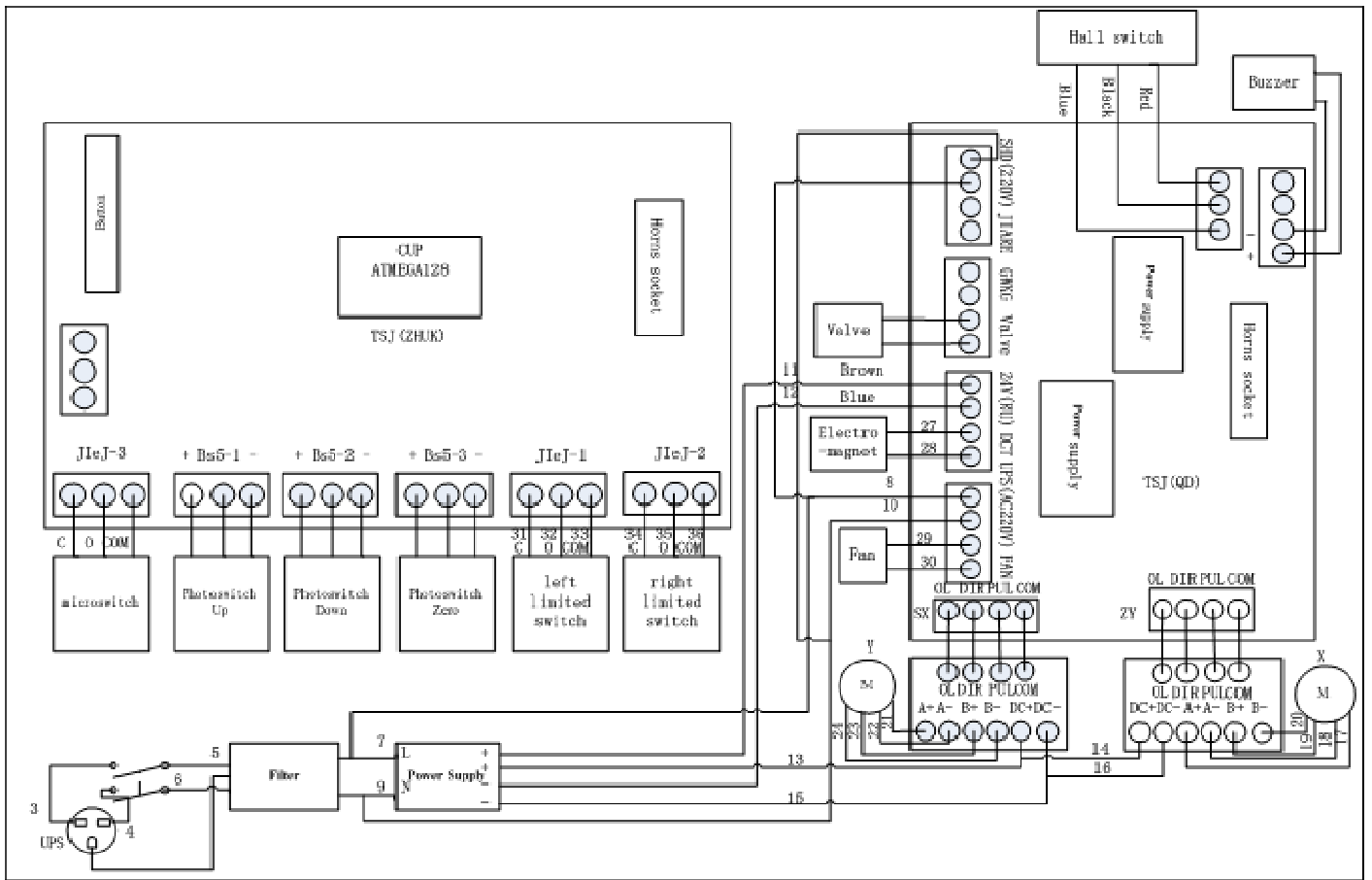
Schematic Diagram



Schematic diagram

7:

Wiring Diagram



Wiring diagram



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