

artisJet

Direct to Substrate Printing Solutions

artisJet 2100U
Service Manual

artisJet Customer Care

Oct 2018

About this Manual

This manual describes basic functions, theory of electrical and mechanical operations, maintenance and repair procedures of the printer. The instructions and procedures included herein are intended for the experienced repair technicians, and attention should be given to the precautions on the preceding page.

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Statement

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Important Warning

- Keep the children far away from this equipment.
- Operate the UV series equipment with protective glasses.
- Ground wire must be connected; any failure of ground wire will cause damage to electronics.
- Unpack the printer carefully. Any damage, please contact us.
- Do not connect power without our instructions.
- Place printer on a stable and steady table.
- Keep at least 20 cm for back view space and at least 150 cm for front view space.

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PRODUCT DESCRIPTION

- CHAPTER 1 PRODUCT DESCRIPTION
- 1.1 1. Ergonomic Structure Design for easy operation and maintenance.
- 1.1.2. Safe Built-in water cooling UV LED curing system.
- 1.1.3. Accurate transmission. Servo Motor driven for Y movement.
- 1.1.4. High resolution. Epson L801 print system with 3.5PL ink drop size.
- 1.1.5. Economical Continuous Ink Supply System .
- 1.1.6. Easy and Visible LED Control Panel.
- 1.1.7. Adjustable Table for various height materials at 18*29.7CM area.

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FEATURERS

CHAPTER 2 FEATUERS

artisJet 2100U is designed for instant color printing production benefiting from:

1.1 1. Ergonomic Structure Design for easy operation and maintenance.

1.1.2. Safe Built-in water cooling UV LED curing system.

1.1.3. Accurate transmission. Servo Motor driven for Y movement.

1.1.4. High resolution. Epson L801 print system with 3.5PL ink drop size.

1.1.5. Economical Continuous Ink Supply System .

1.1.6. Easy and Visible LED Control Panel.

1.1.7. Adjustable Table for various height materials at 18*29.7CM area.

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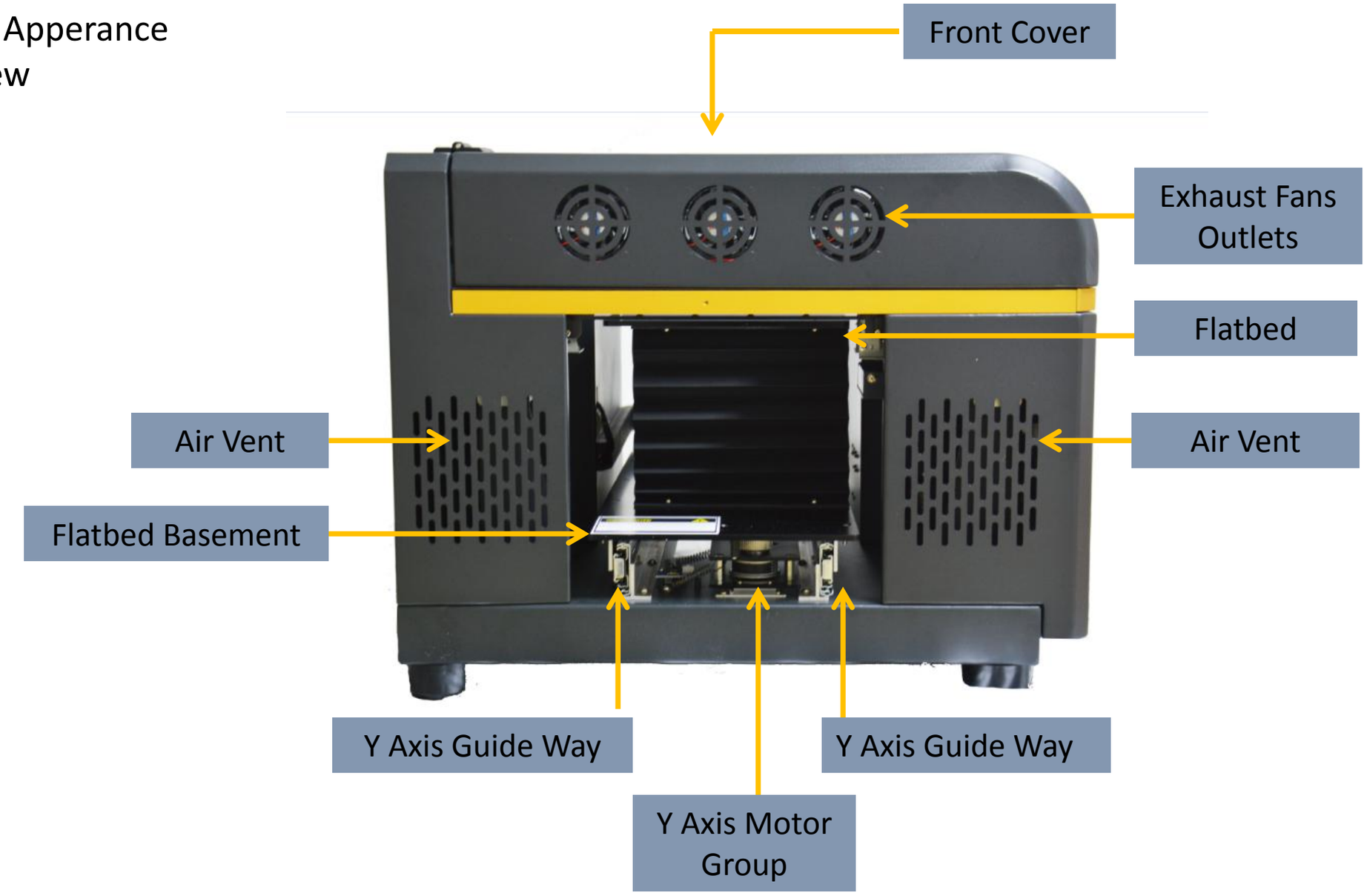
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1.Basic Function

1.1 Machine Apperance

- Front View

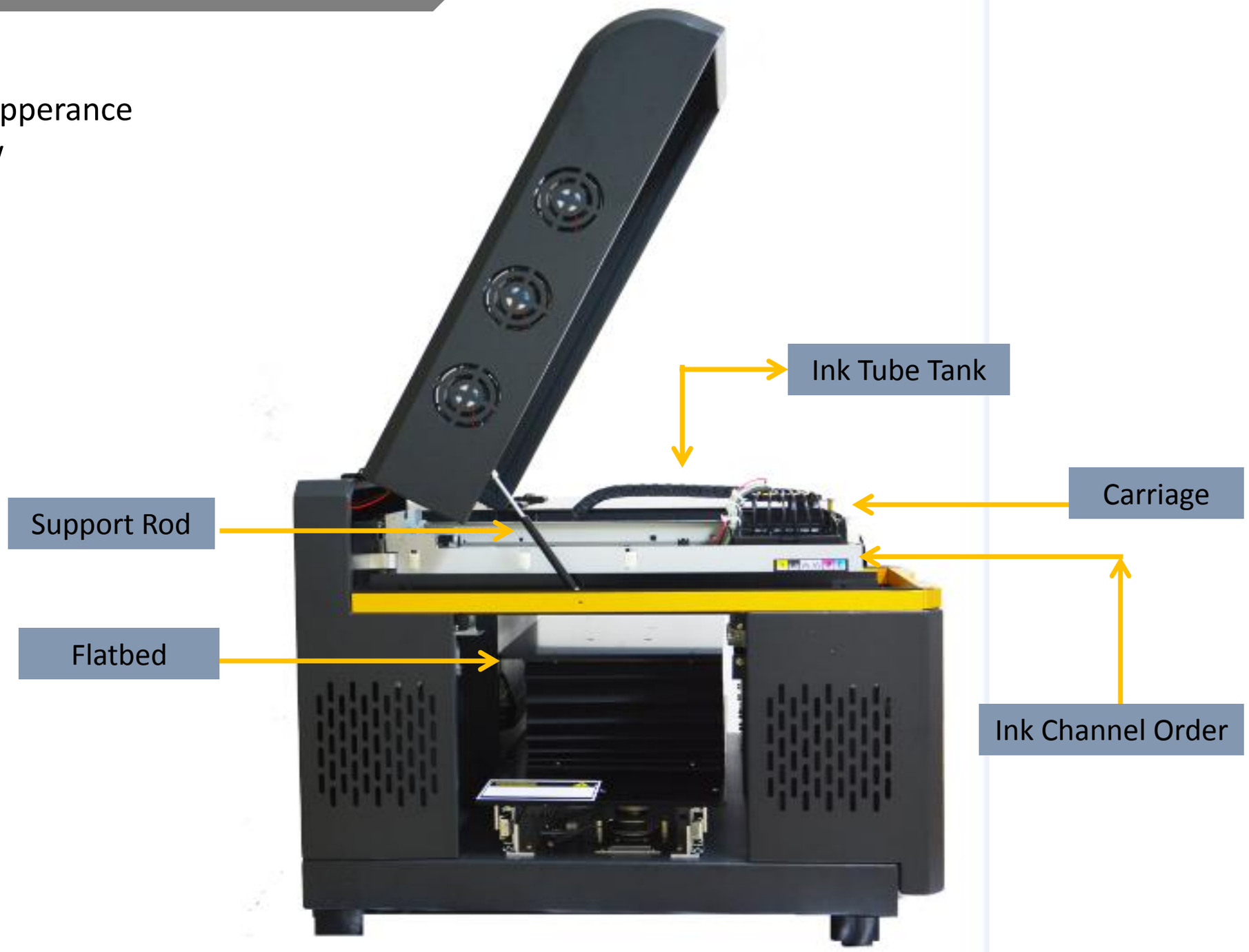


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1.Basic Function

1.1 Machine Apperance

- Front View

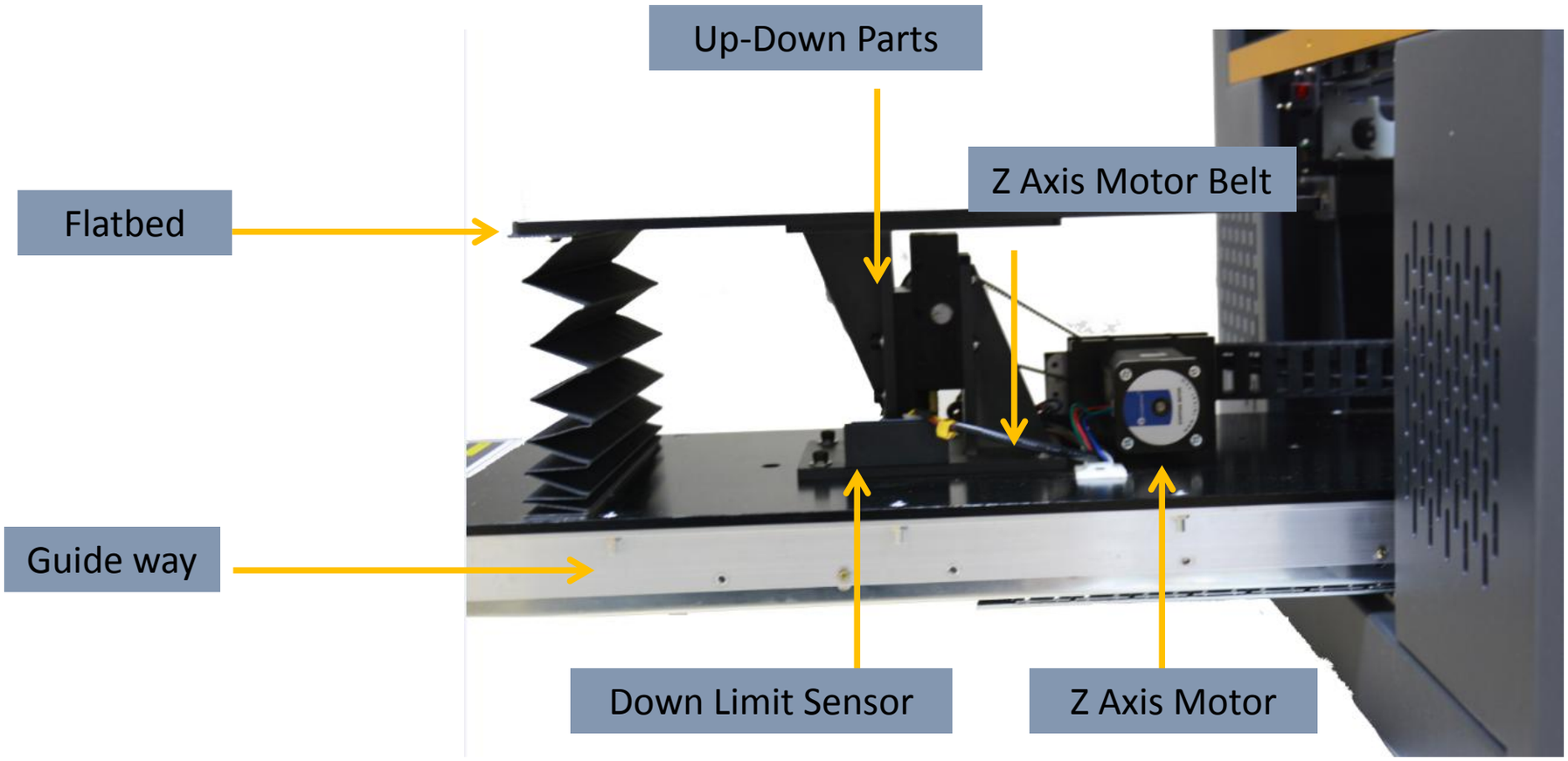


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1.Basic Function

1.1 Machine Apperance

- Front View

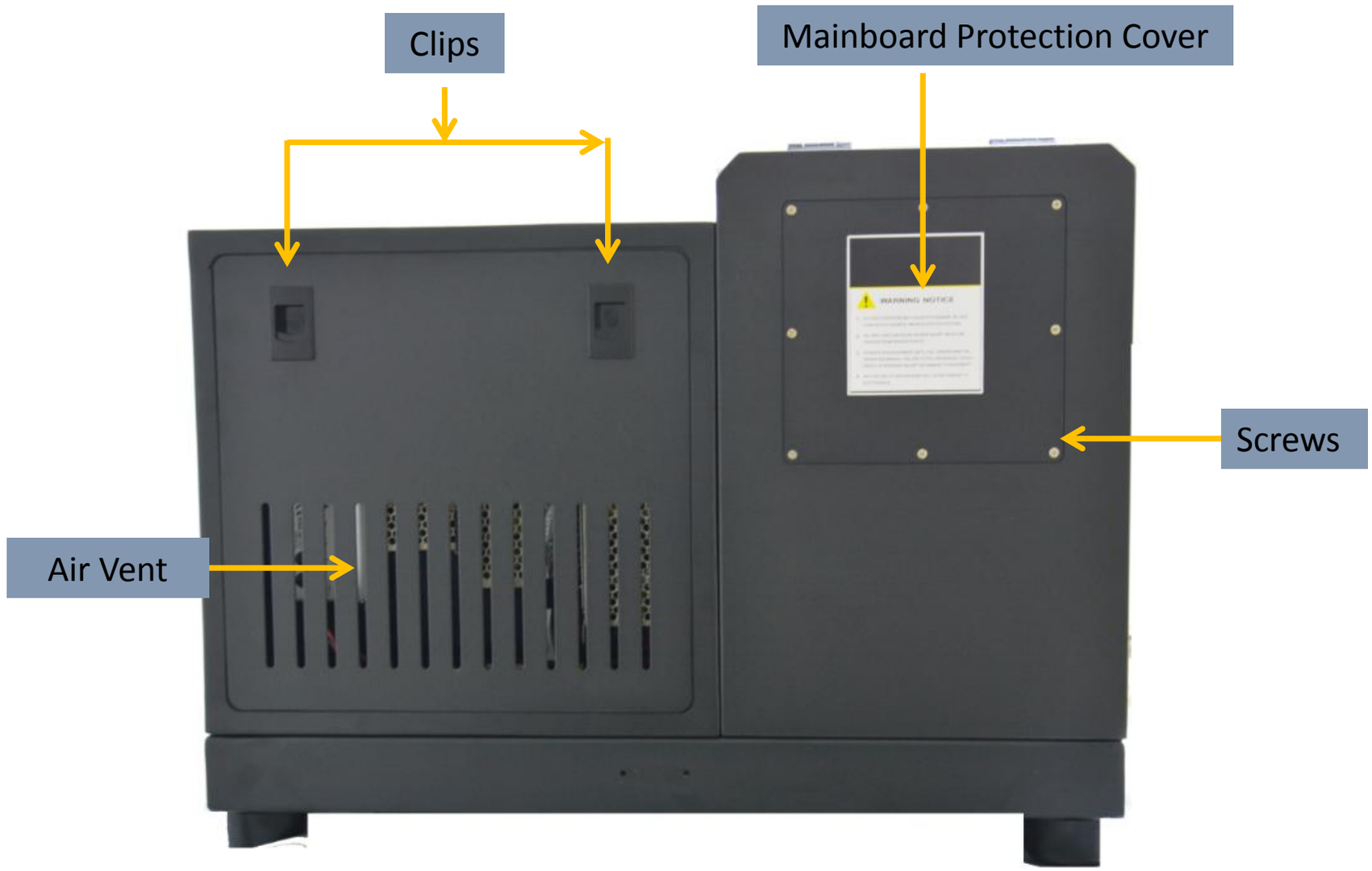


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1.Basic Function

1.1 Machine Apperance

- Left View

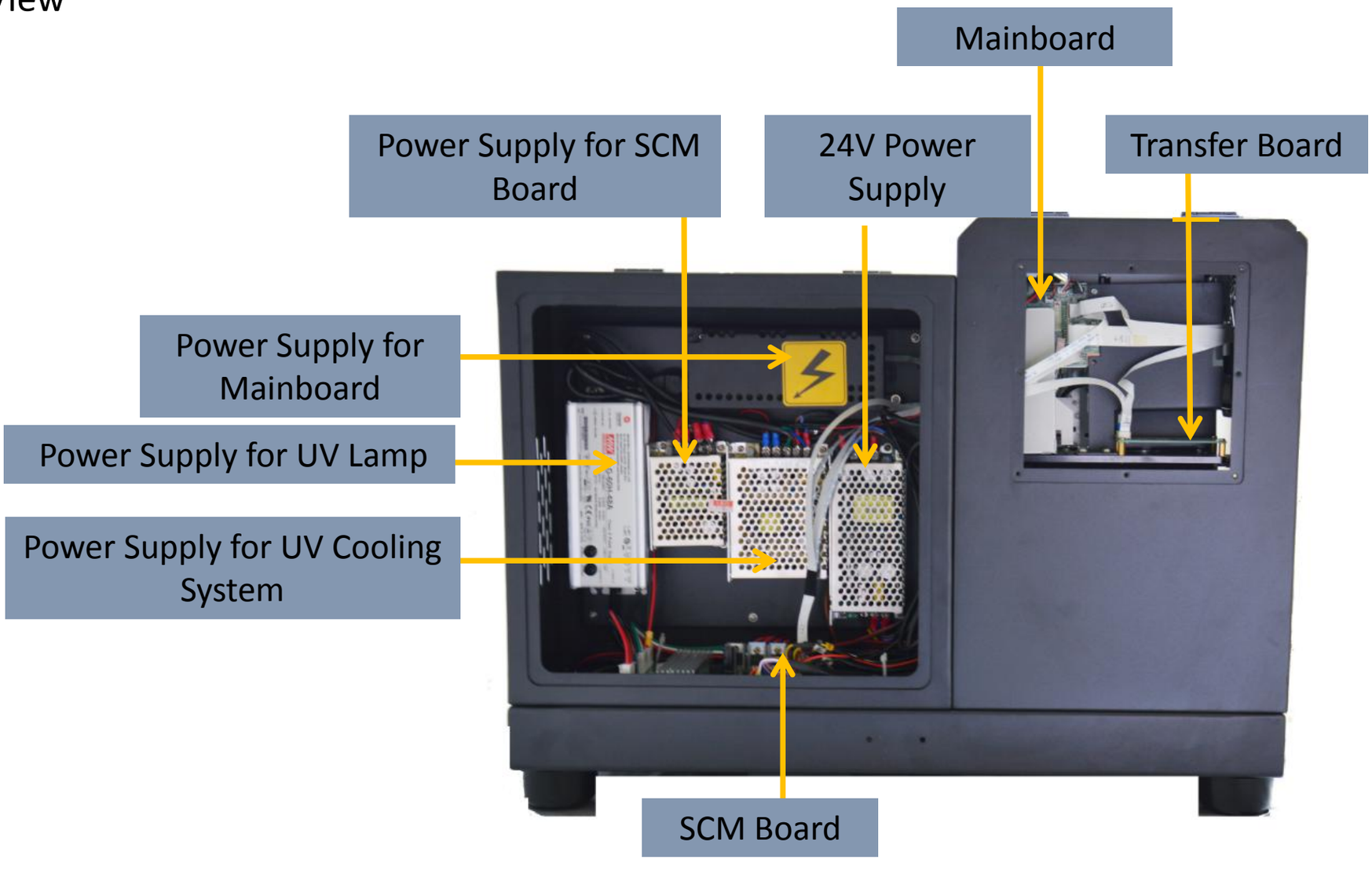


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1.Basic Function

1.1 Machine Apperance

- Left View

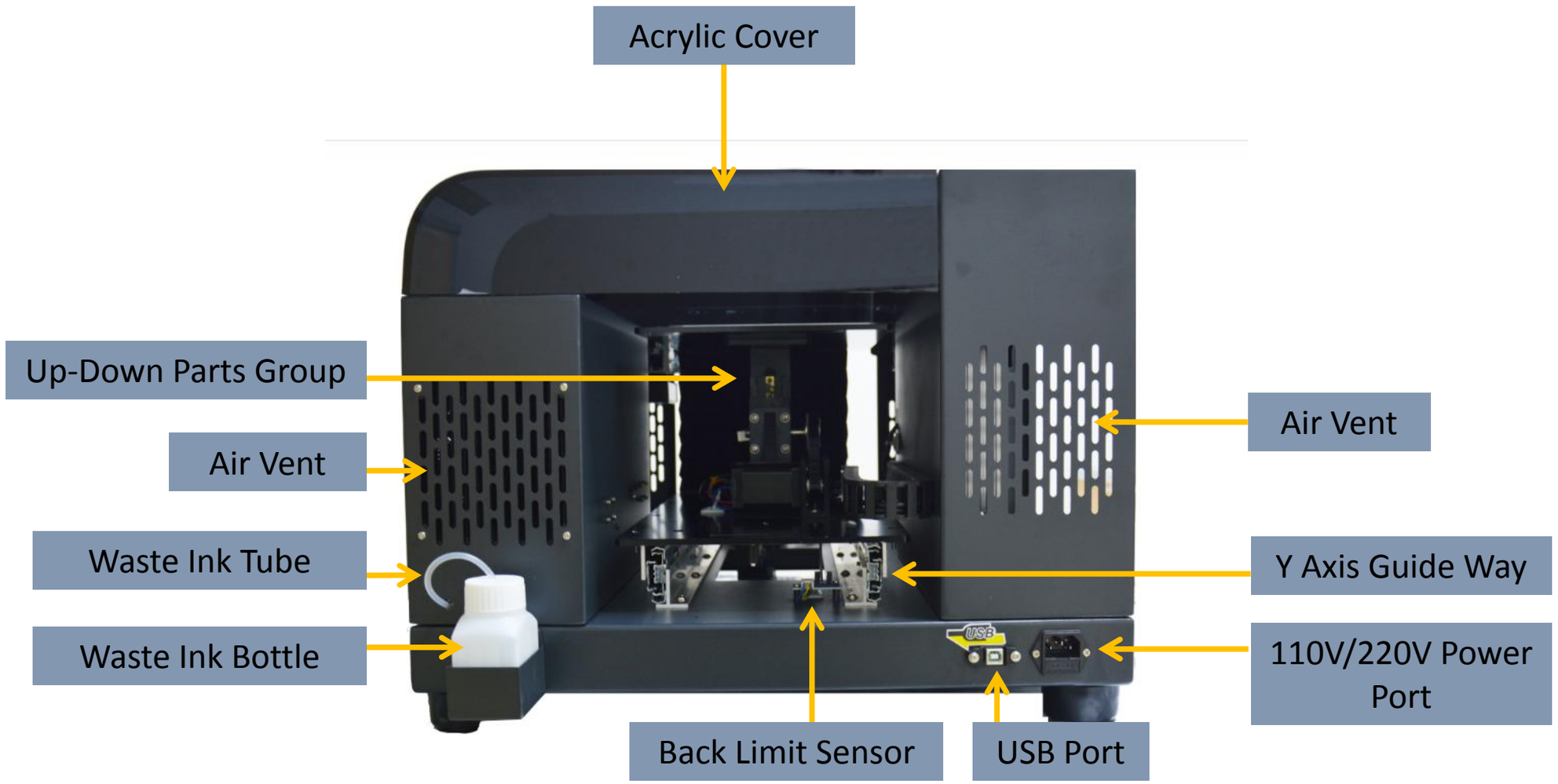


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1.Basic Function

1.1 Machine Apperance

- Back View

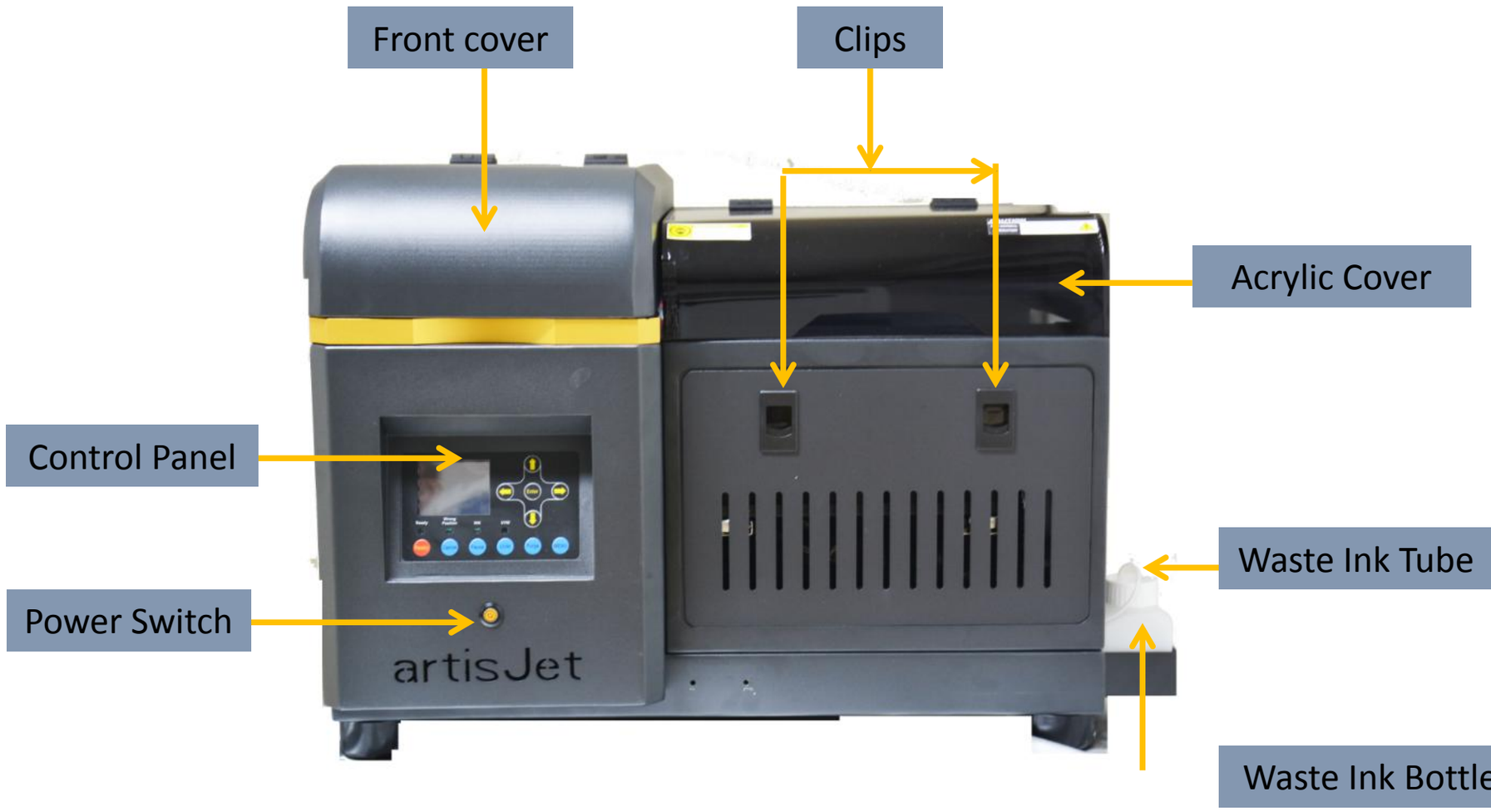


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1.Basic Function

1.1 Machine Apperance

- Right View



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1.Basic Function

1.1 Machine Apperance

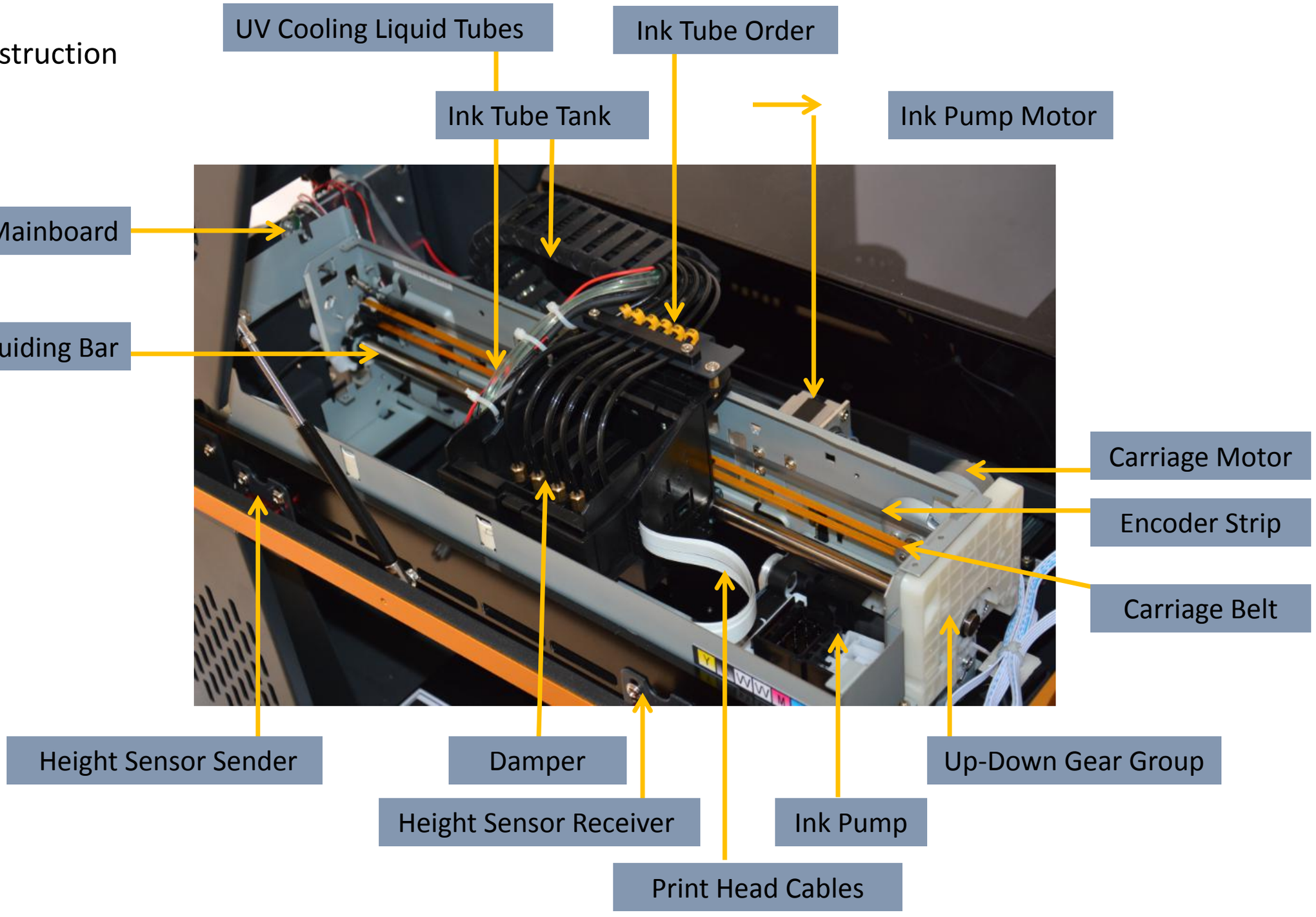
- Right View



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1.Basic Function

1.2 Spare Parts Instruction



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2.Control Panel Information & Function

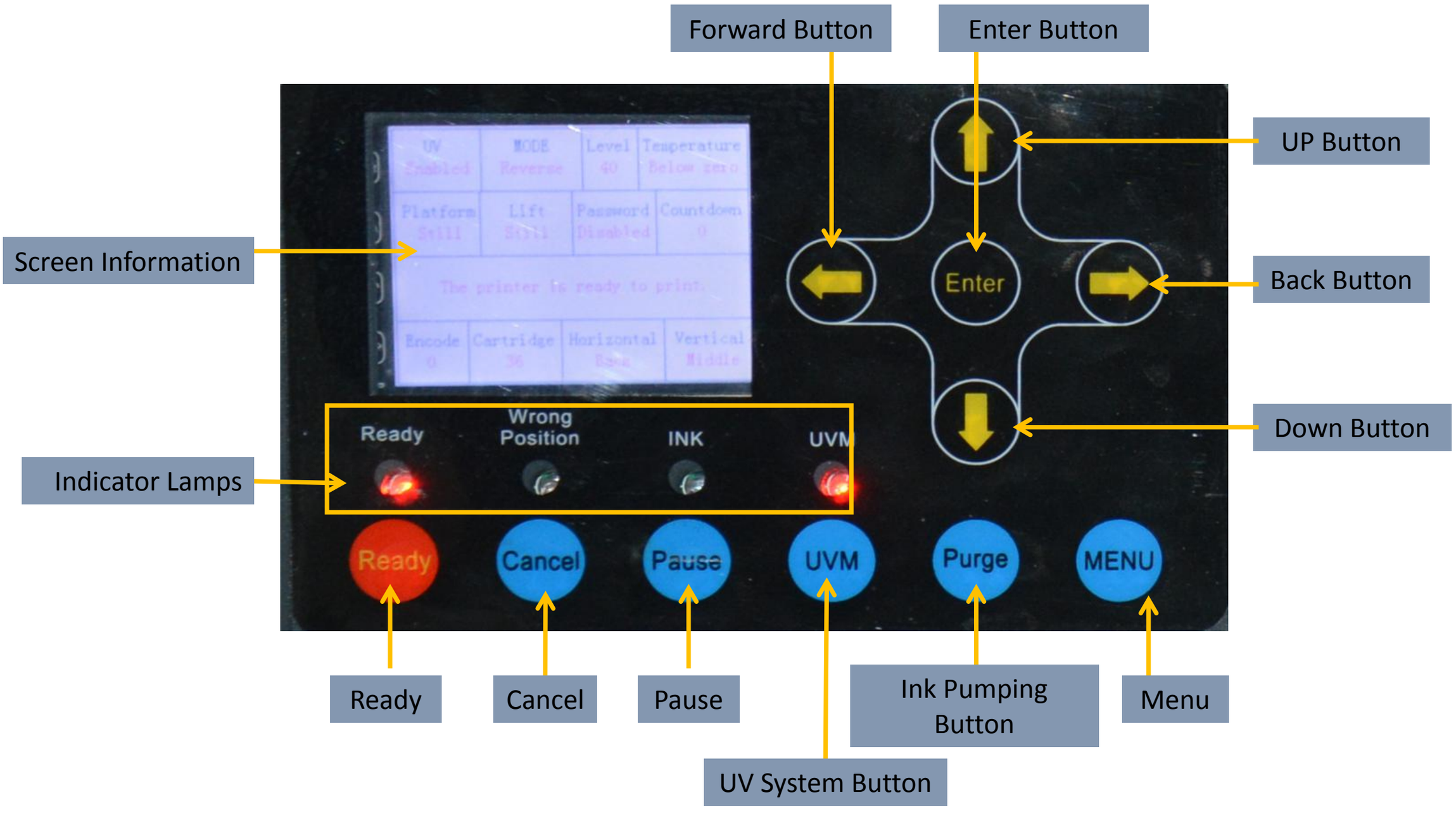
2.1 Control Panel information Introduction

2.2. Function

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2.Control Panel Information & Function

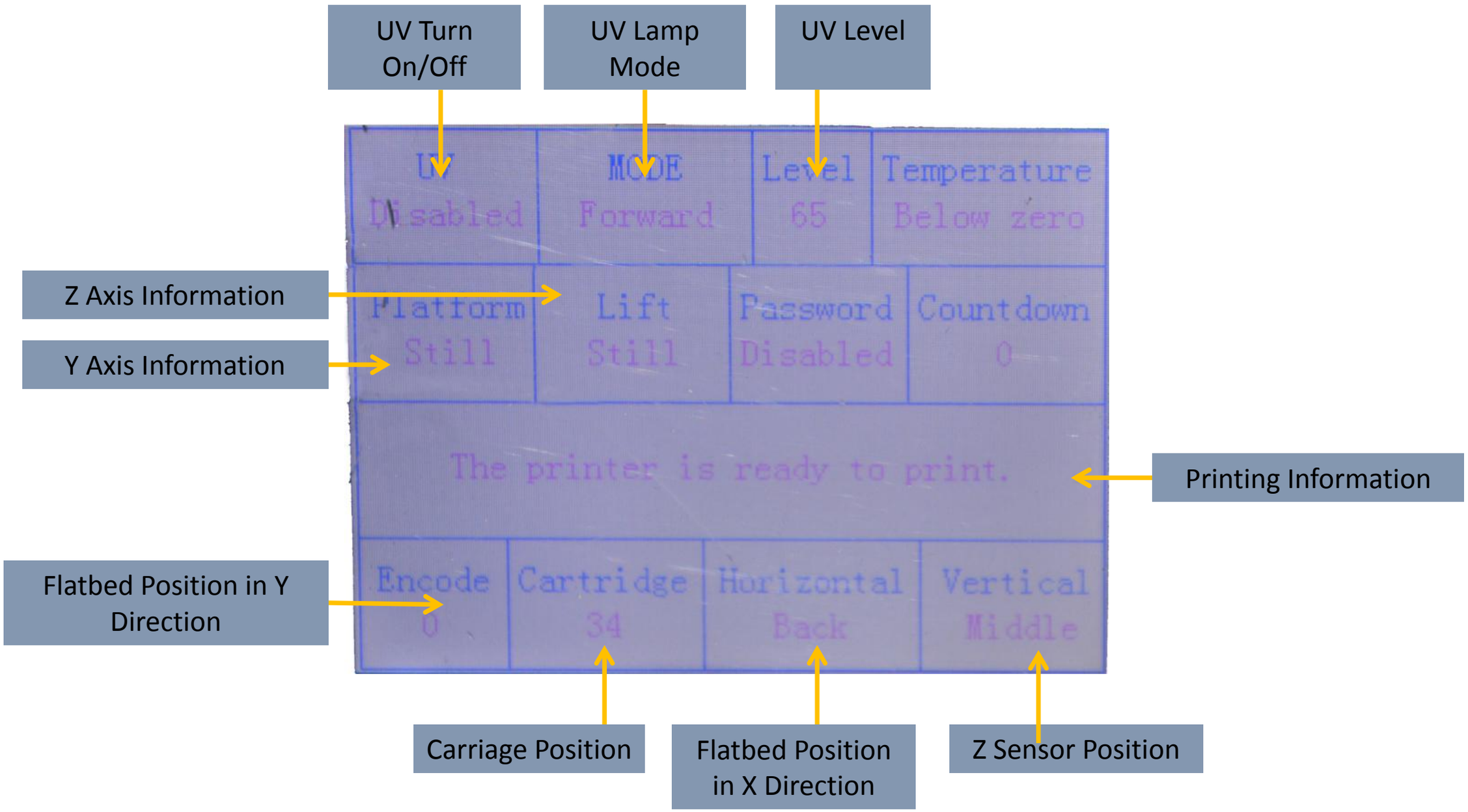
2.1 Control Panel Information



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2.Control Panel Information & Function

2.1 Control Panel Information



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2.Control Panel Information & Function

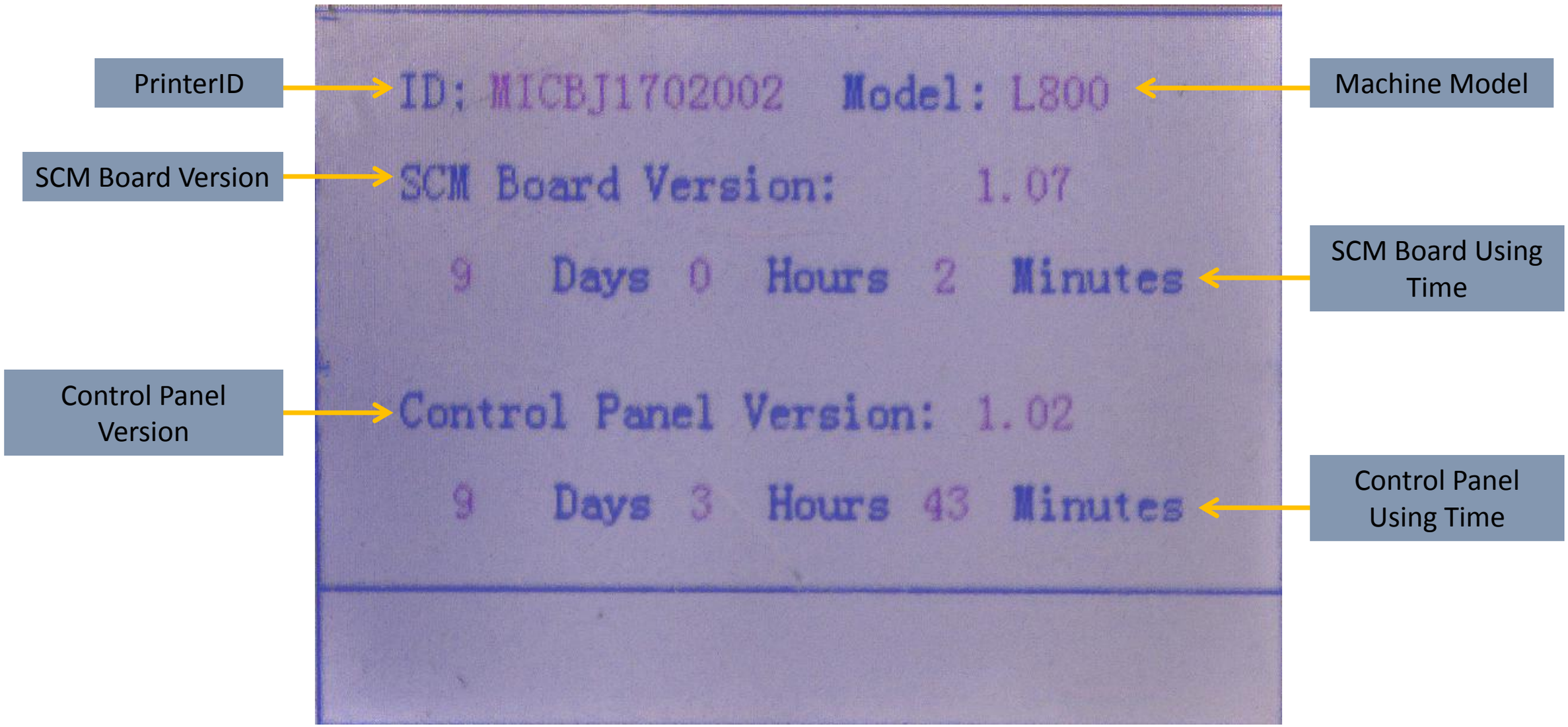
2.2 Function



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2.Control Panel Information & Function

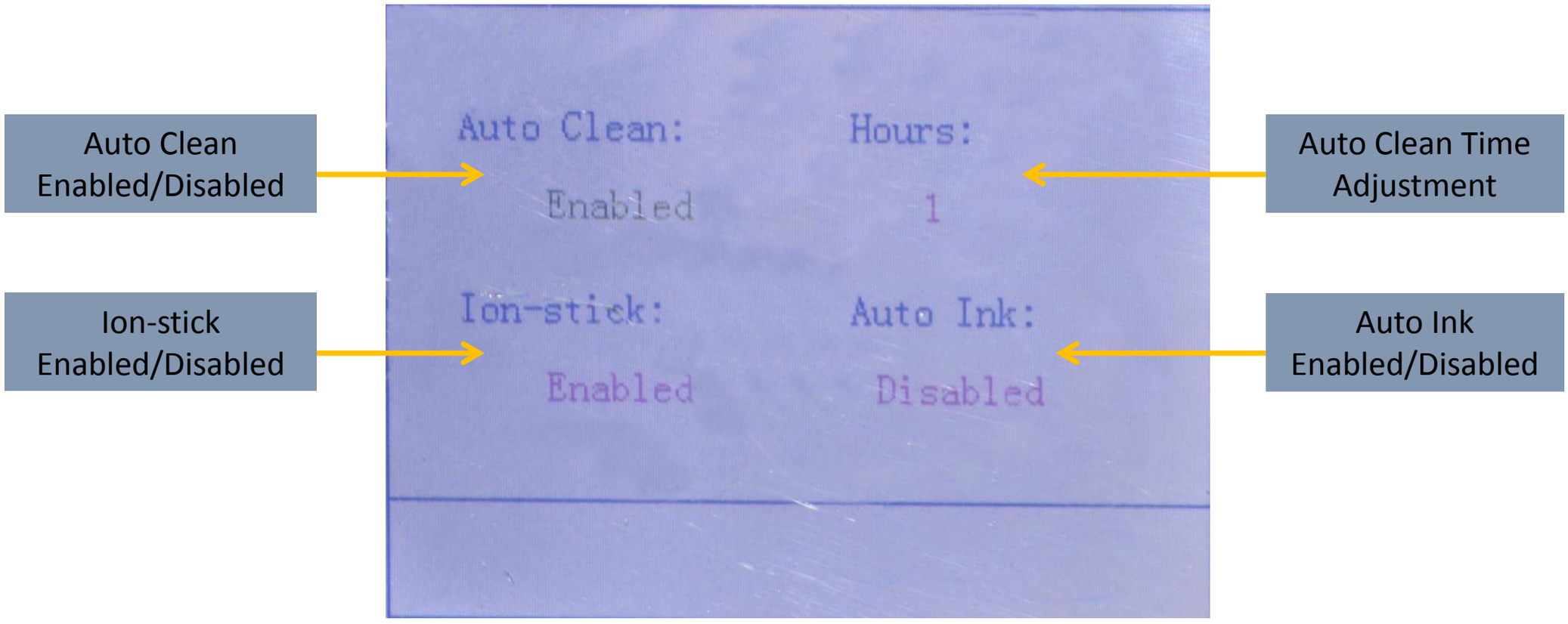
2.2 Function



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2.Control Panel Information & Function

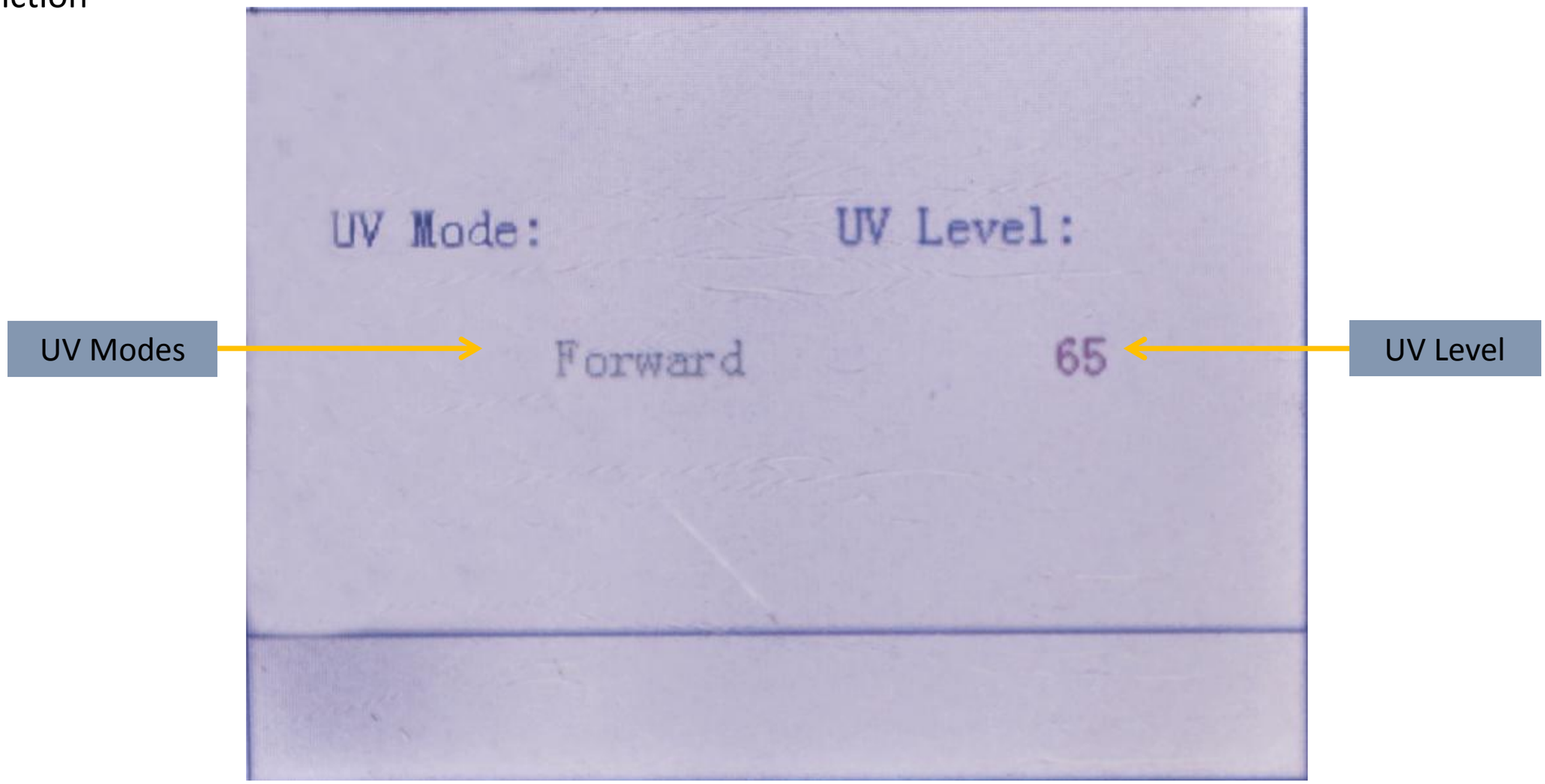
2.2 Function



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2.Control Panel Information & Function

2.2 Function



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3. Operating Principle of Electricity &Mechanical

3.1 UV System
3.1.1 UV Lamp
3.1.2 UV Cooling System

3.2 Y Axis
3.2 Y Axis Control System
3.2.3 Y Axis Drive Sysem

3.3 Z Axis
3.3.1 Z Axis Control System
3.3.2 Z Axis Drive System

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3.Operating Principle of Electricity &Mechanic

3.1 UV System Introduction

The UV system is driven by 220V/110V power supply with output power 48V.

The UVM button on control panel is to turn on/off UV system.

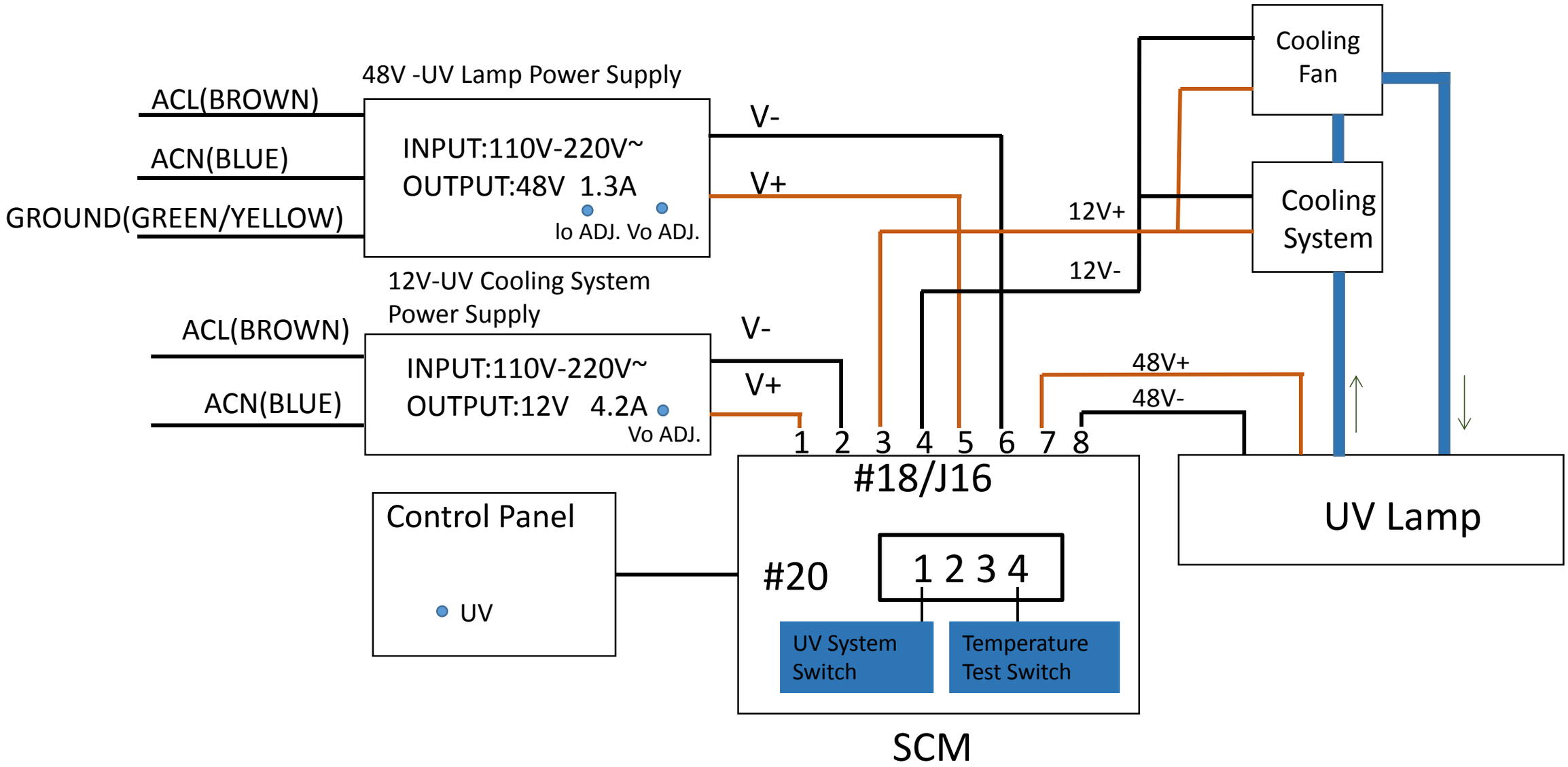
The cooling liquid is recycled by UV cooling pump.

The UV lamp lighting efficiency is 10W/cm^2 .

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3.Operating Principle of Electricity &Mechanical

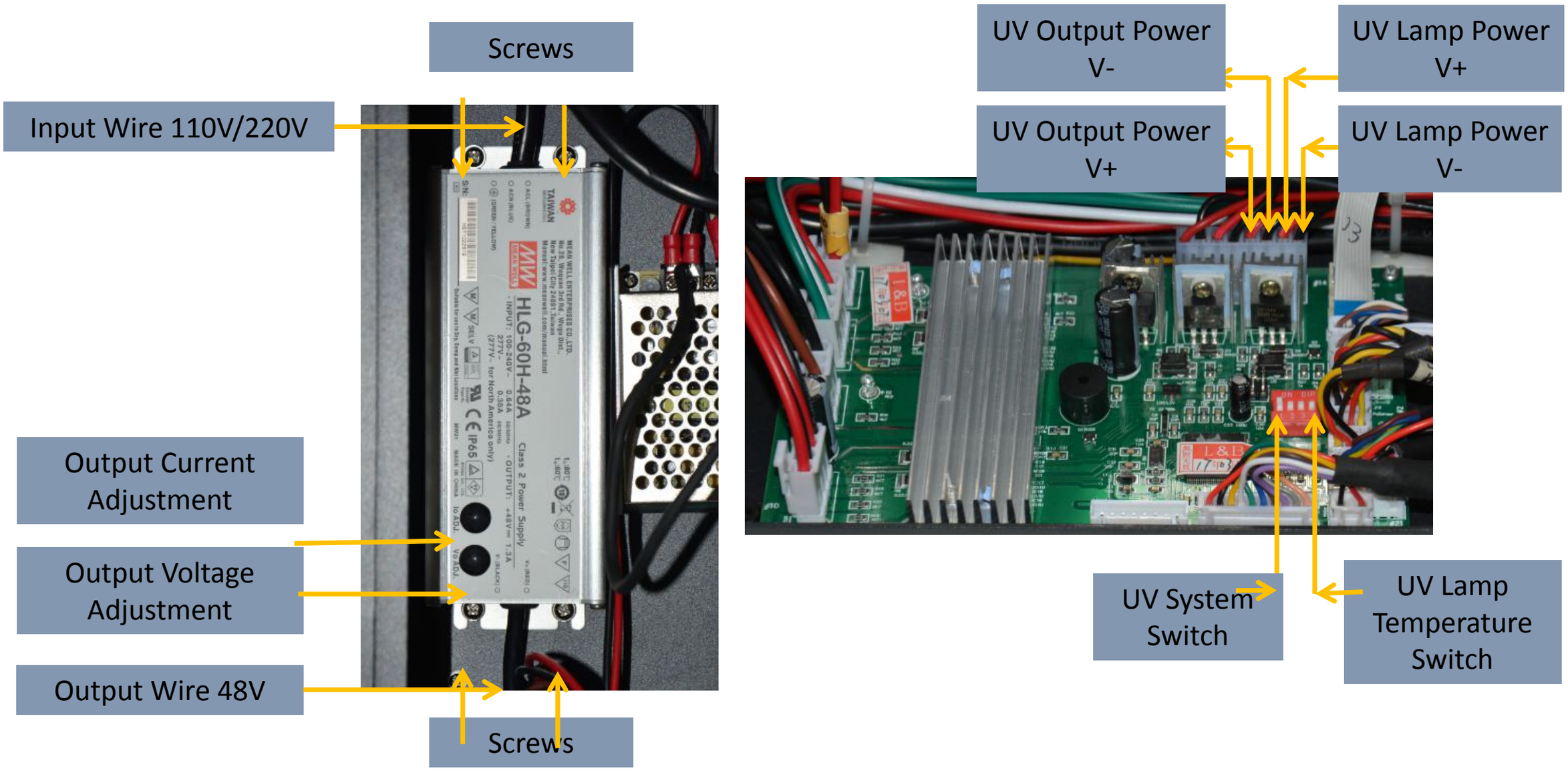
3.1 Built-in Water Cooling System with UV LED Curing



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3.Operating Principle of Electricity &Mechanical

3.1.1 UV Lamp System

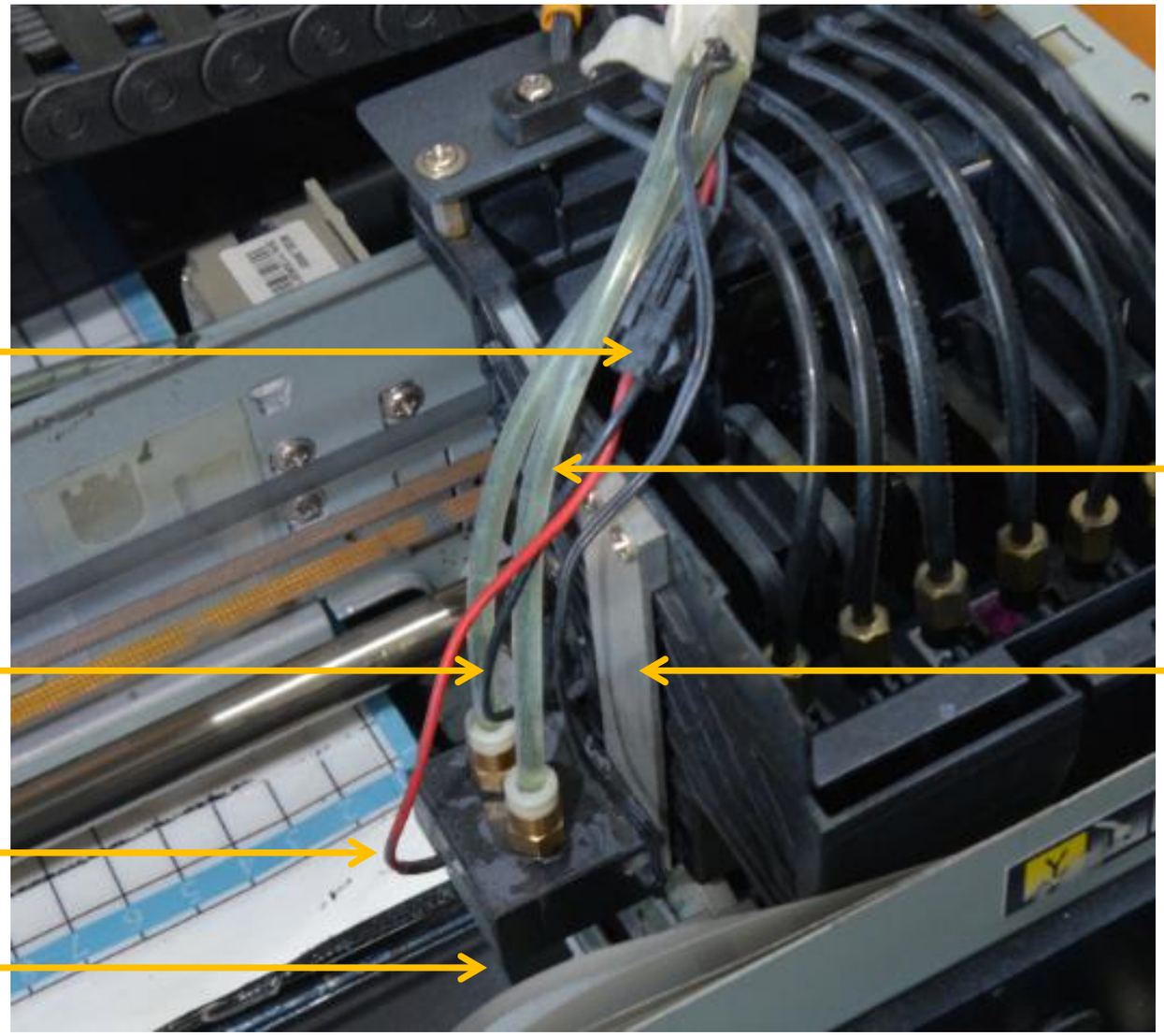


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3.Operating Principle of Electricity &Mechanical

3.1.1 UV Lamp System

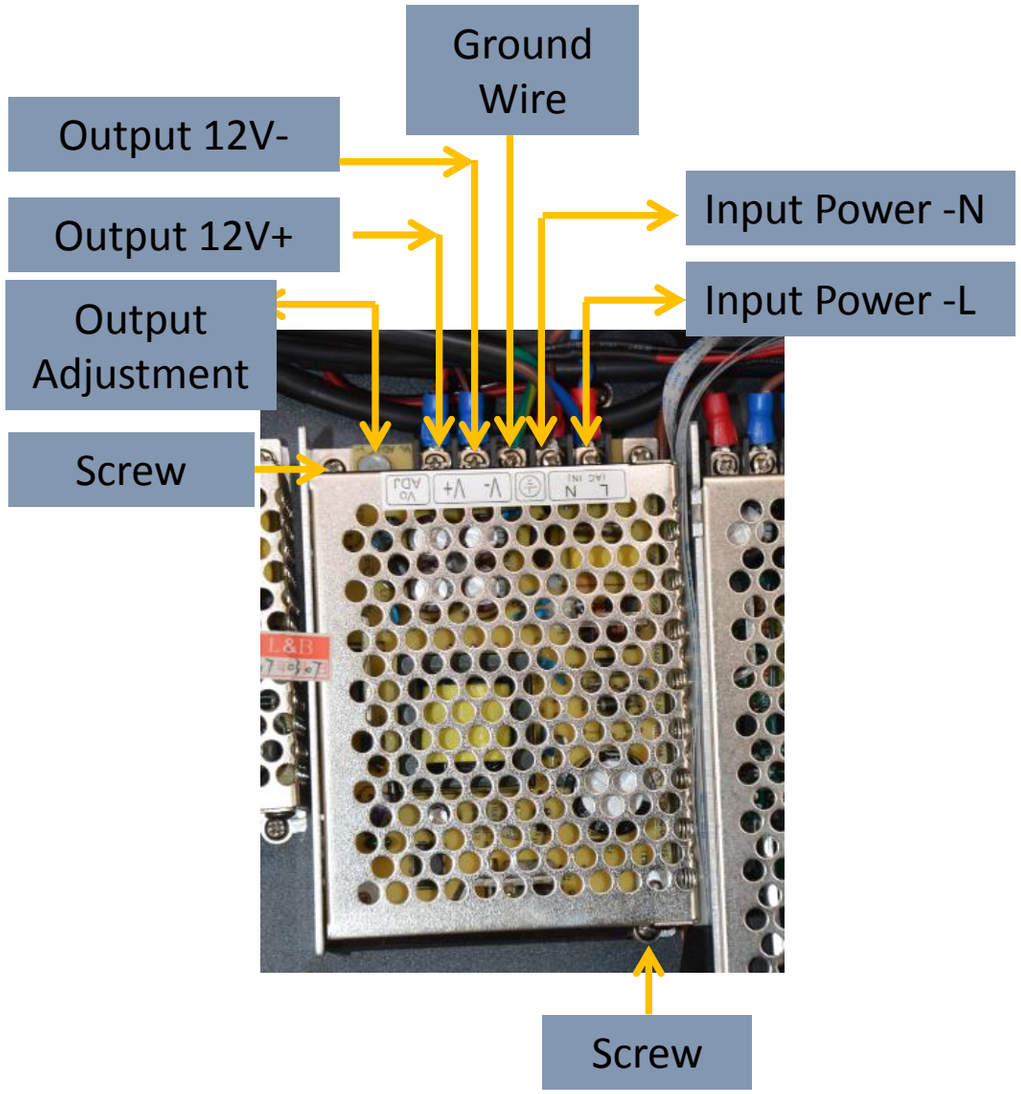
- Power Supply

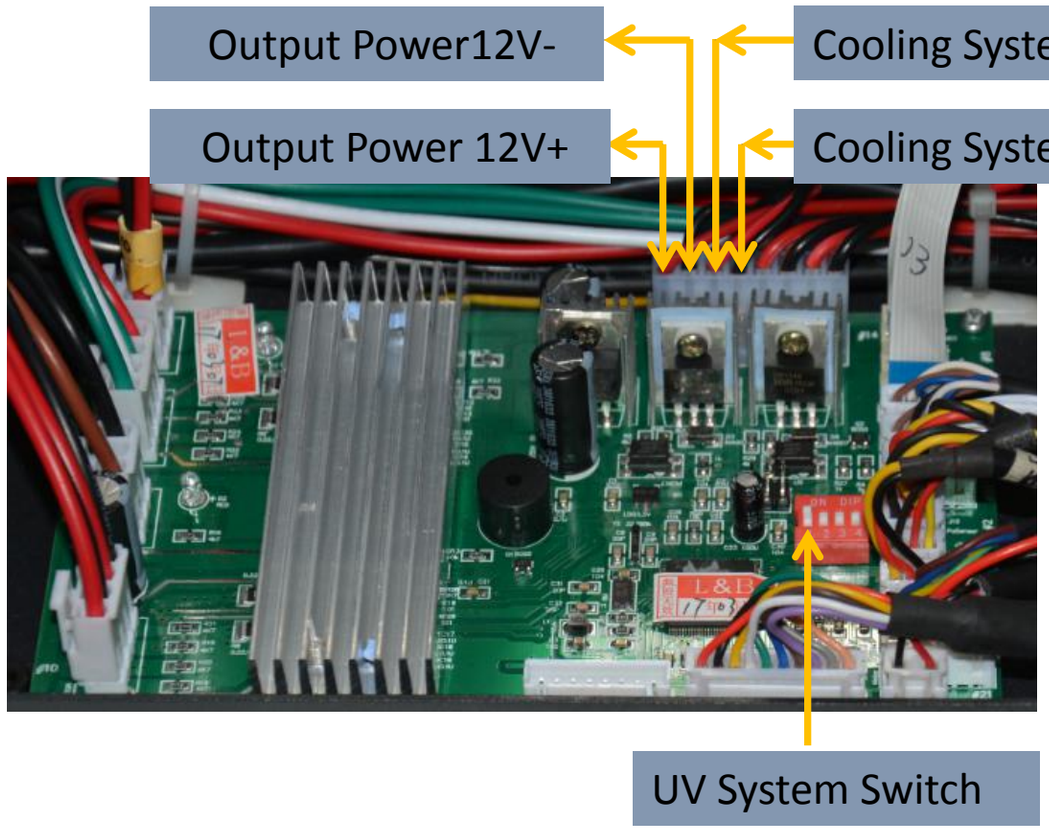


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3.Operating Principle of Electricity &Mechanical

3.1.2 UV Cooling System

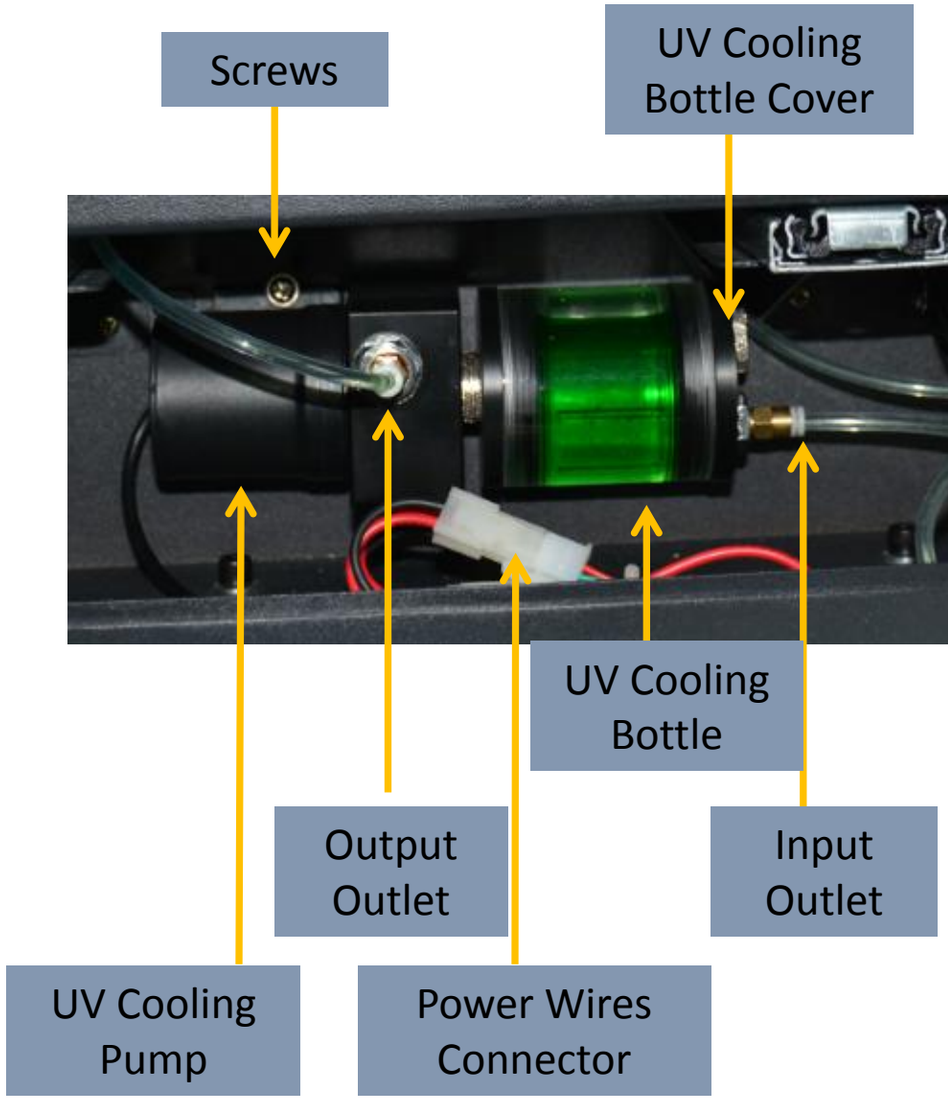


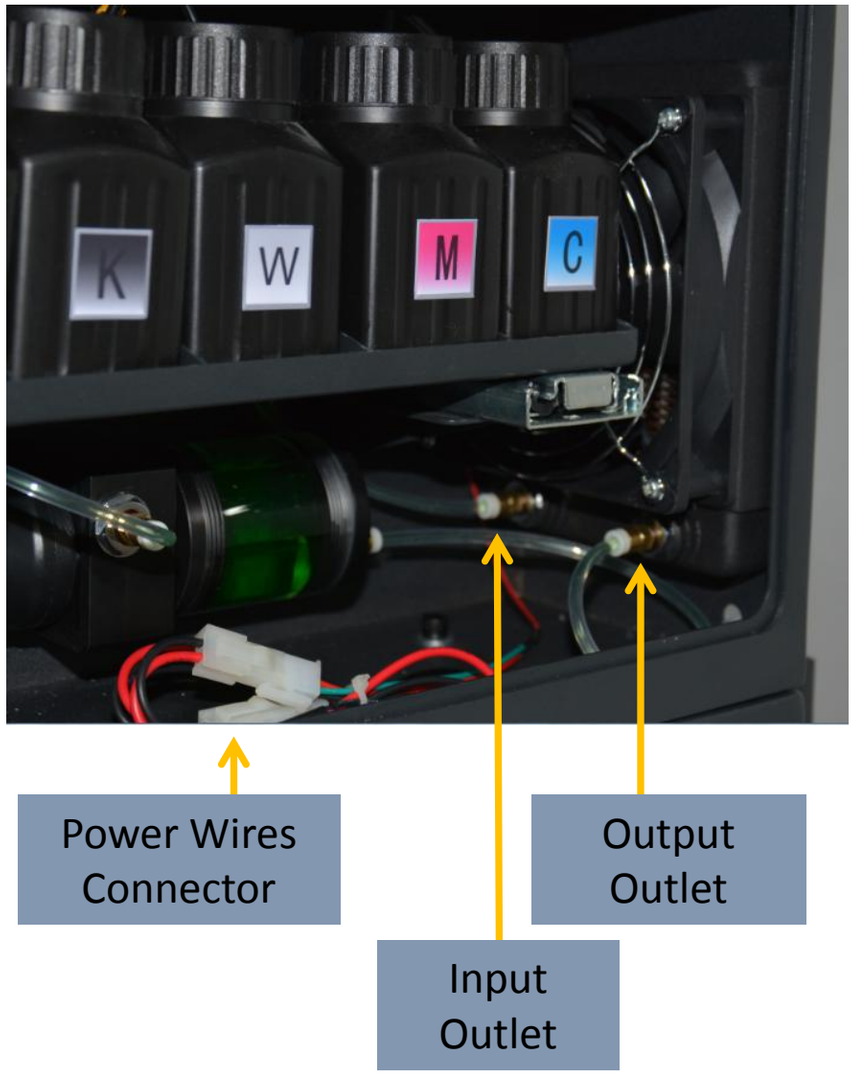


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3.Operating Principle of Electricity &Mechanical

3.1.2 UV Cooling System





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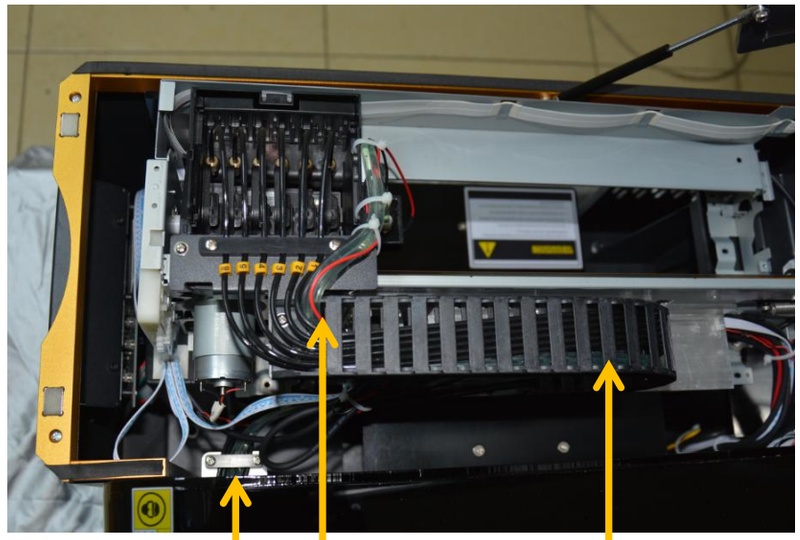
3.Operating Principle of Electricity &Mechanical

3.1.2 UV Cooling System

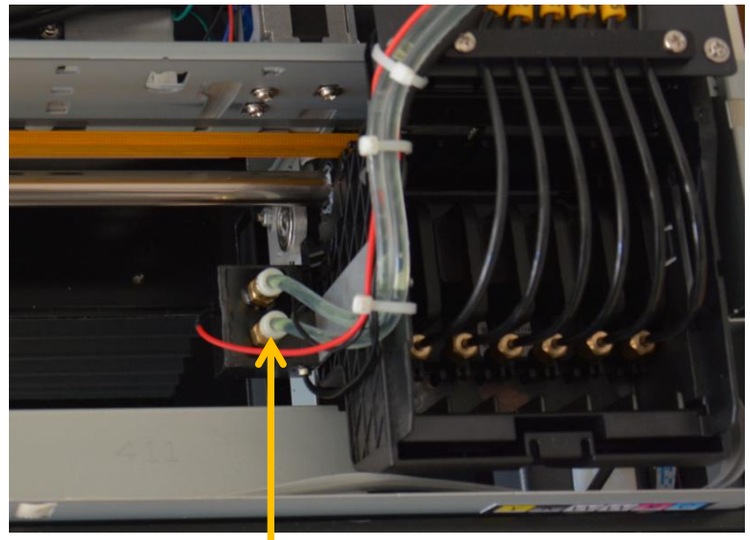
- UV Cooling Tubes Connection



Cooling Tubes



Cooling Tubes



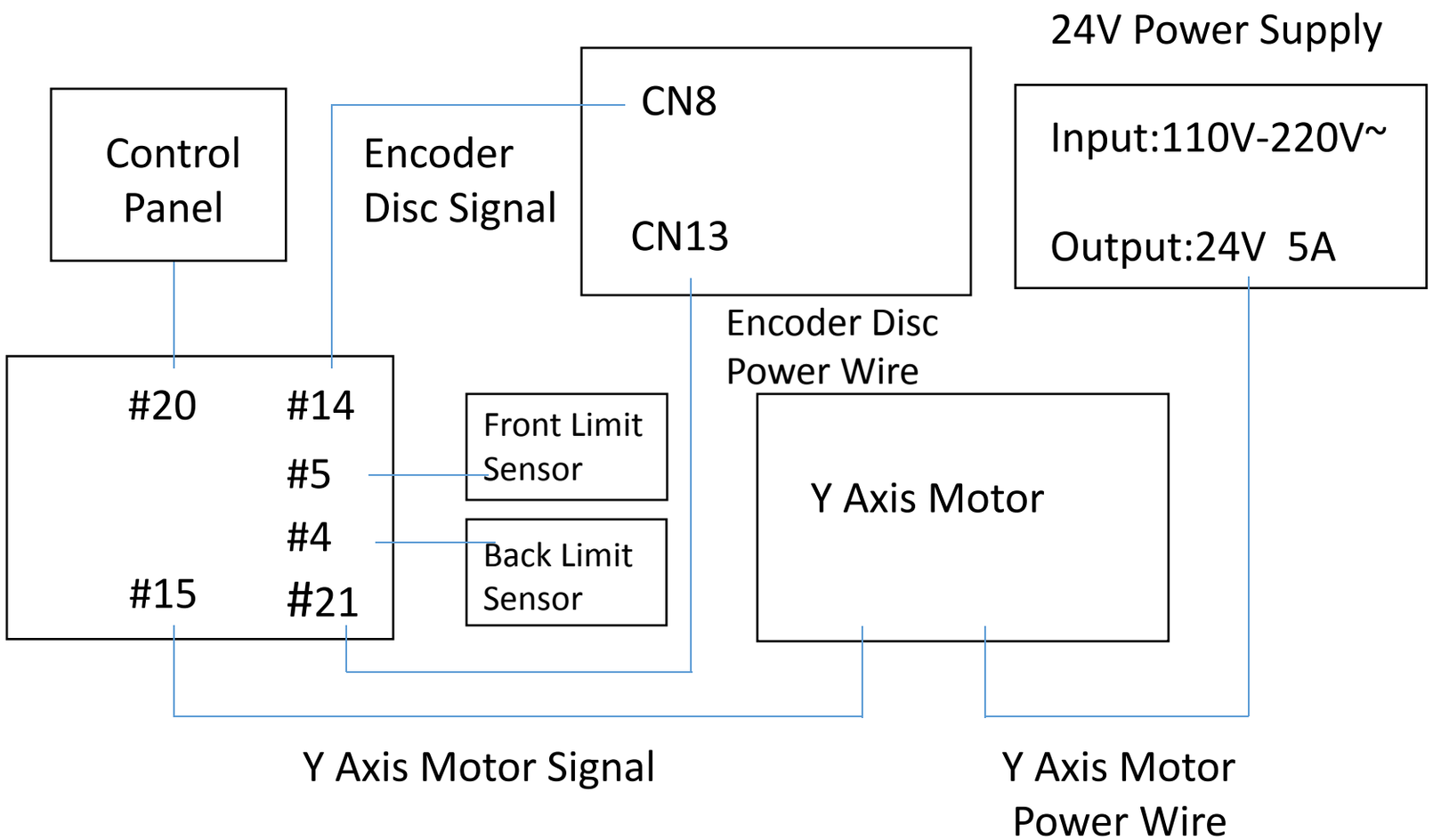
Cooling Tubes

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3.2 Y Axis Movement

Servo Motor Driven for Y Axis Movement

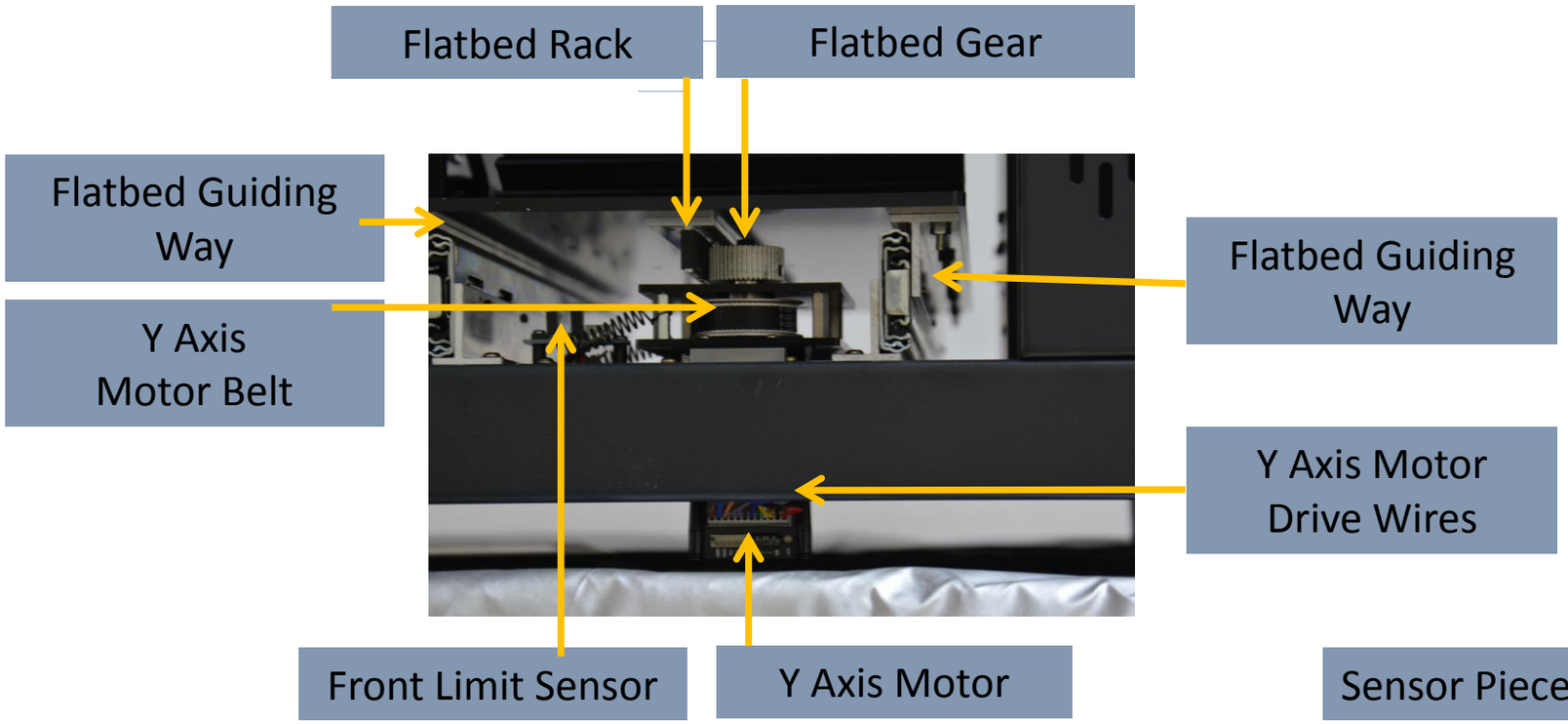
The servo motorized driven system for Y axis movement is to enhance the resolution of the printing . Instead of applying the PF scale,the 2100U Y movement system is driven by a non-brush servo motor.

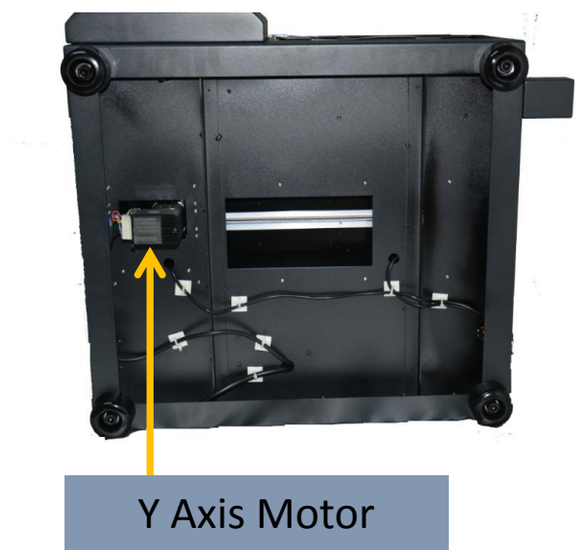


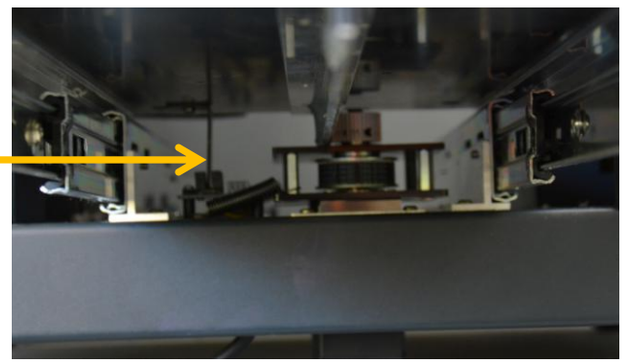
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3.2 Y Axis Movement

3.2.2 Y Axis Control System



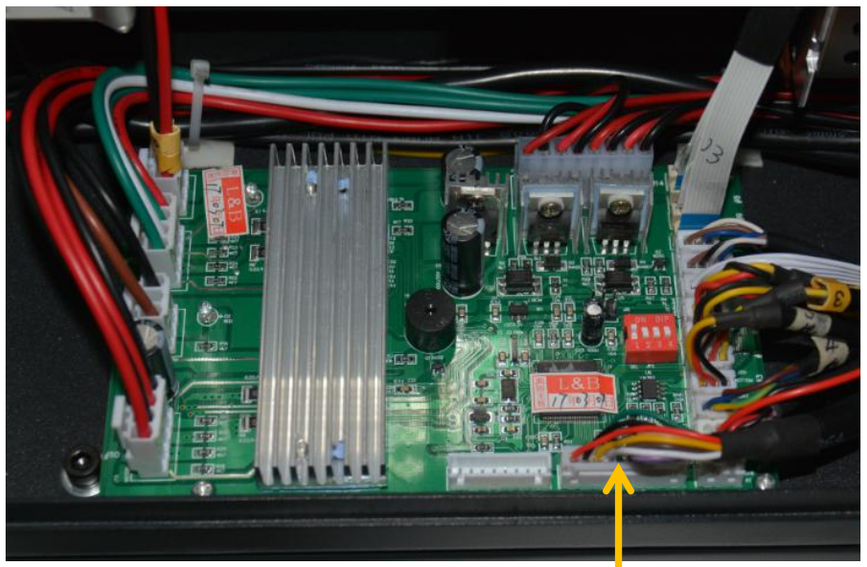




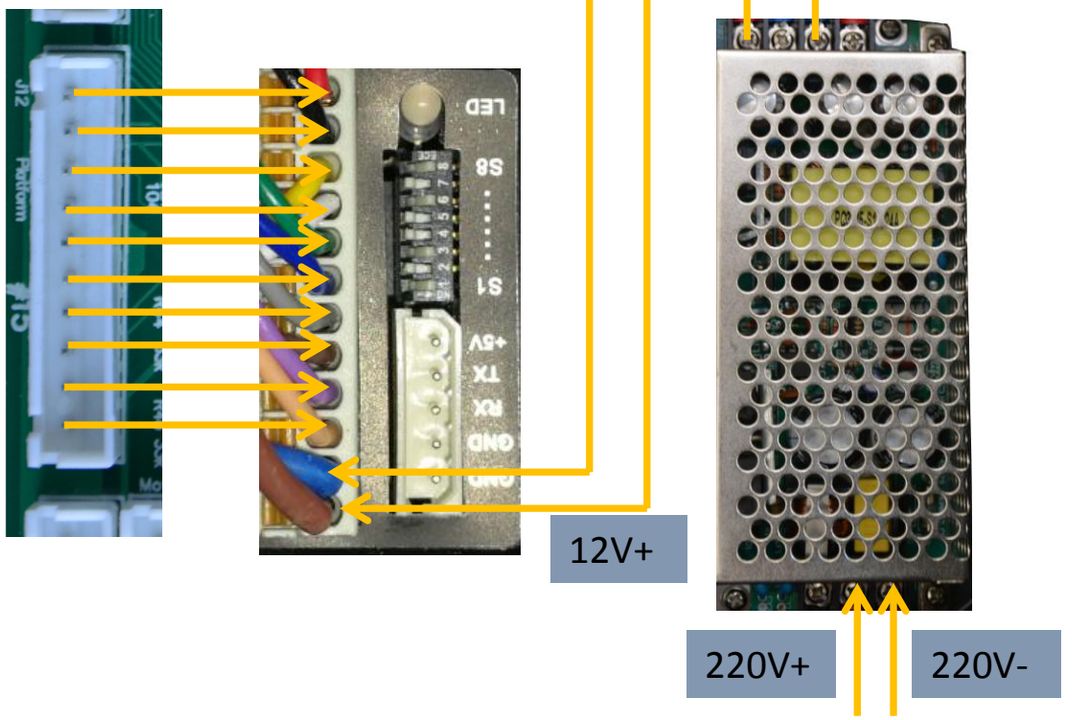
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3.2 Y Axis Movement

3.2.2 Y Axis Control System



Y Motor Drive
Wire #15/J12

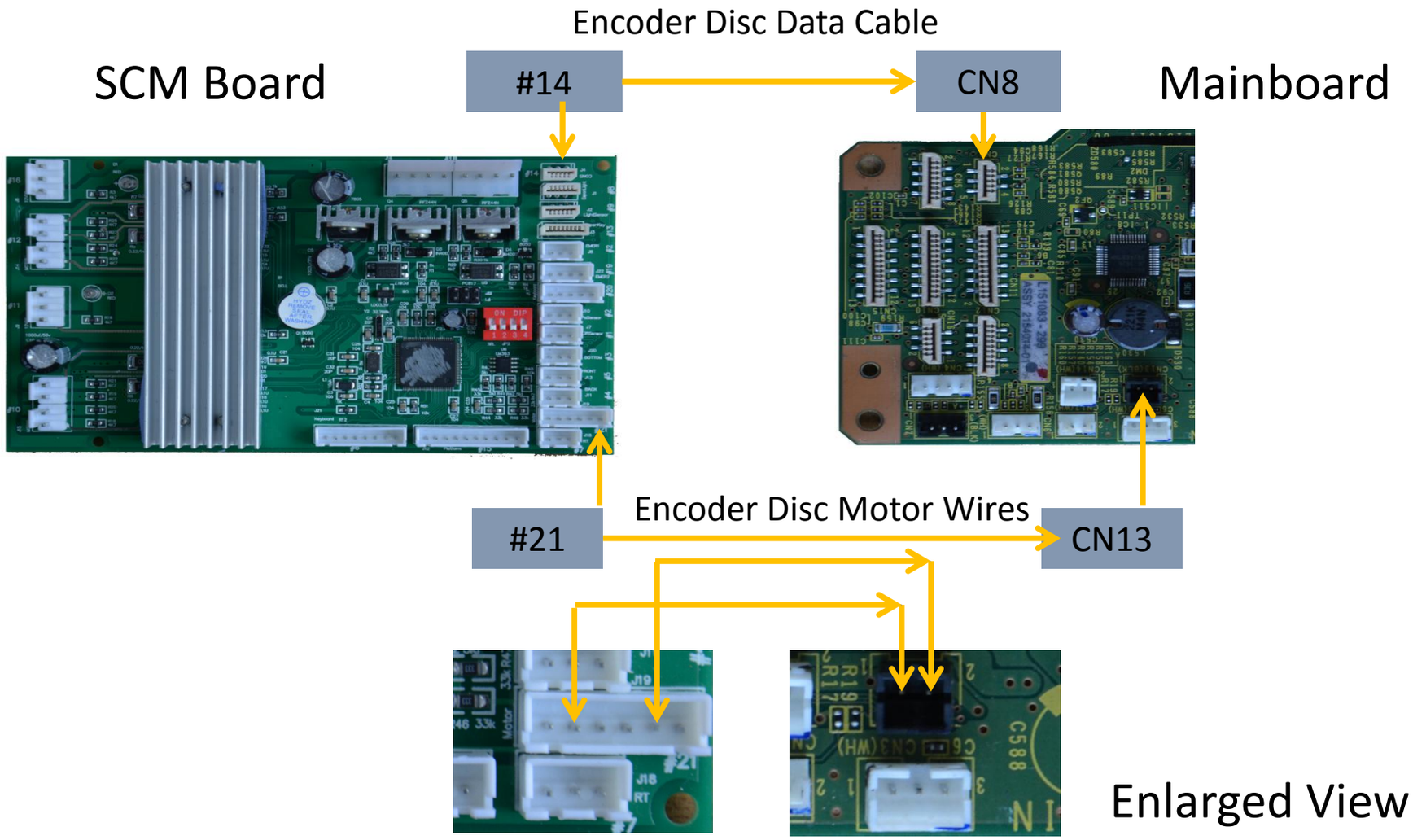


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3.2 Y Axis Movement

3.2.2 Y Axis Control System

- Y Axis Data Cable on Mainbord &SCM board

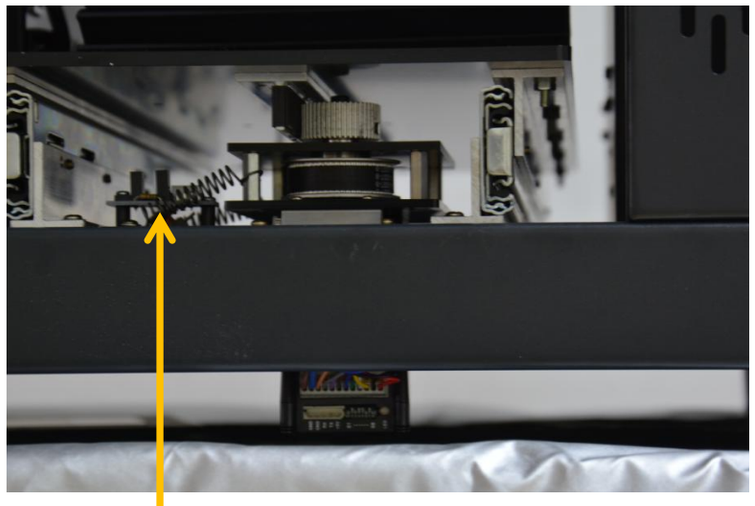


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3.2 Y Axis Movement

3.2.3 Y Axis Drive Sysem

- Front Limit Sensor& Connection on SCM board

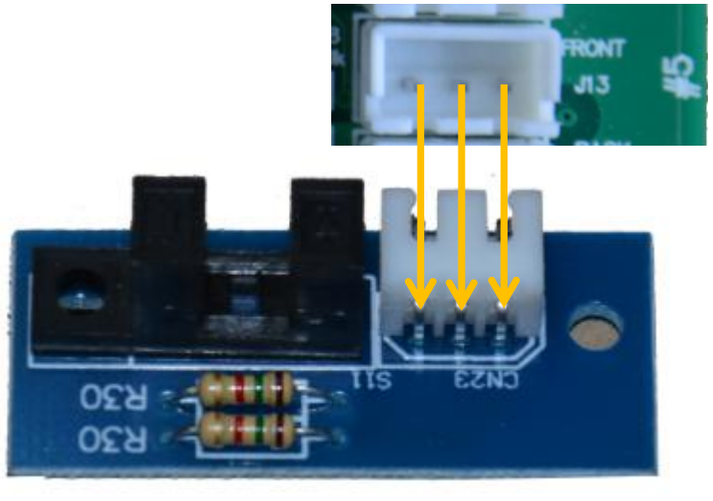


Front Limit Sensor



SCM Board

Front Limit Sensor Cable #5



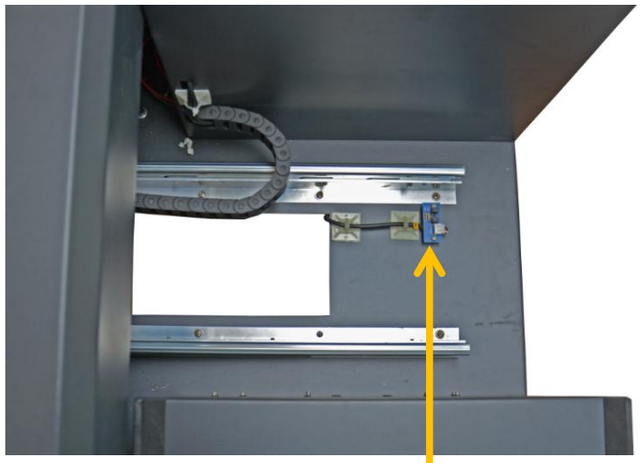
Enlarged View

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3.2 Y Axis Movement

3.2.3 Y Axis Drive Sysem

- Back Limit Sensor& Connection on SCM board

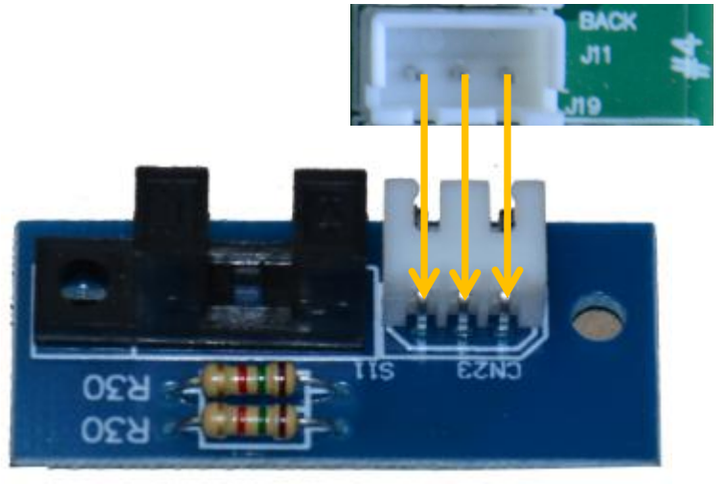


Back Limit Sensor



SCM Board

Back Limit
Sensor Cable #4

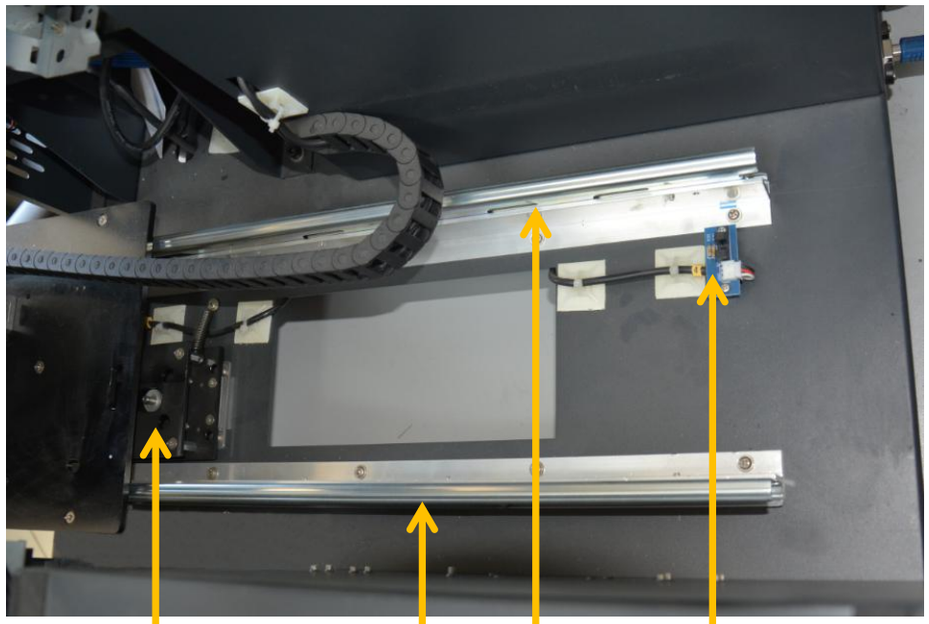


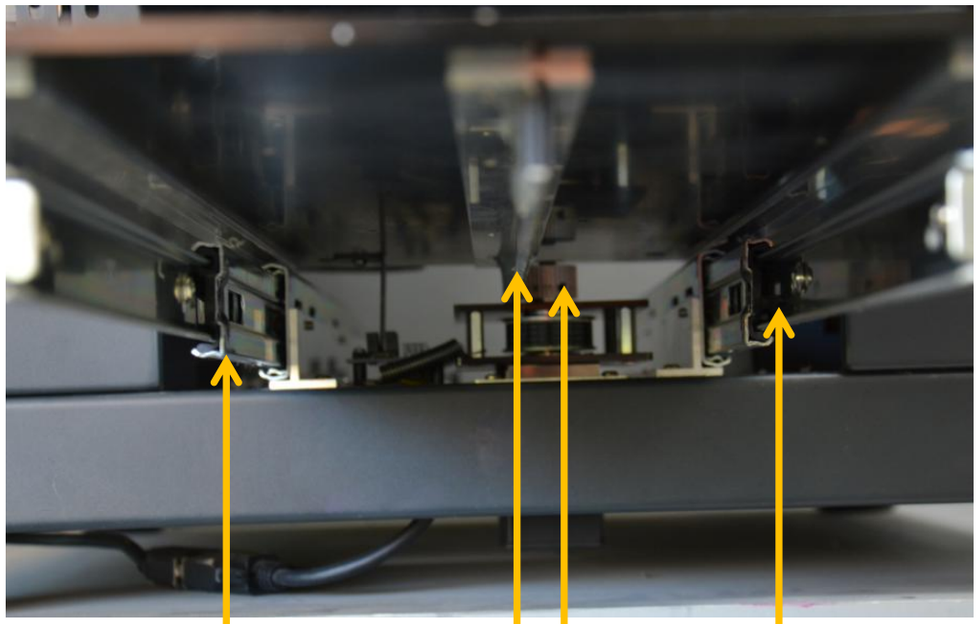
Enlarged View

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3.2 Y Axis Movement

3.2.3 Y Axis Drive Sysem

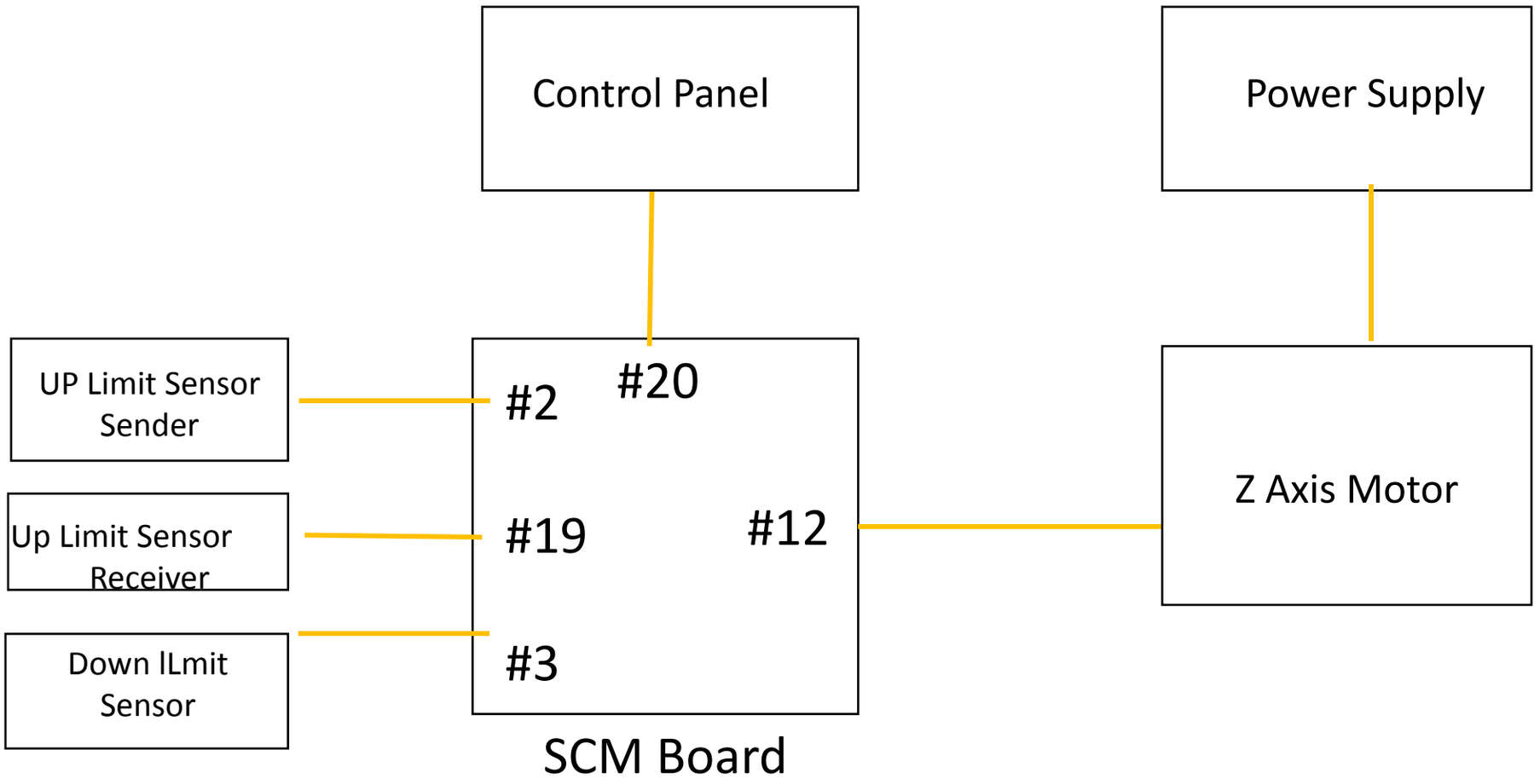




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3.3 Z Axis Movement

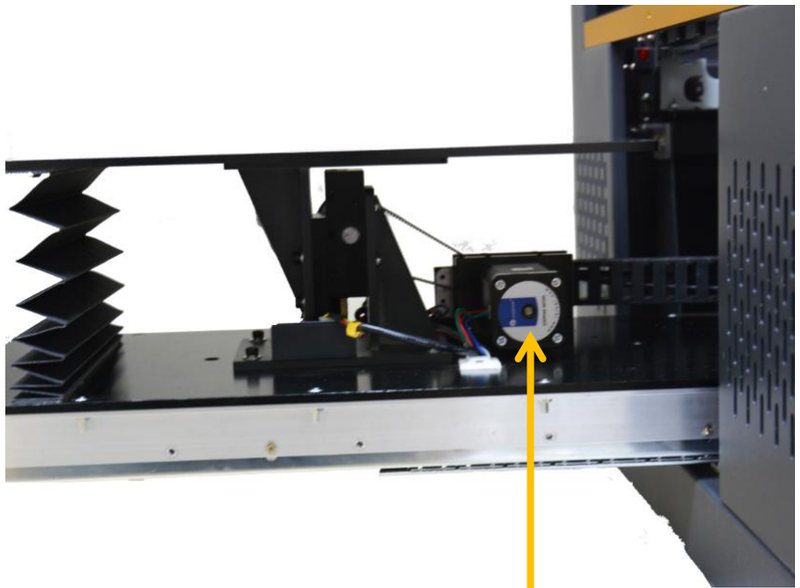
3.3.1 Z Axis Control System



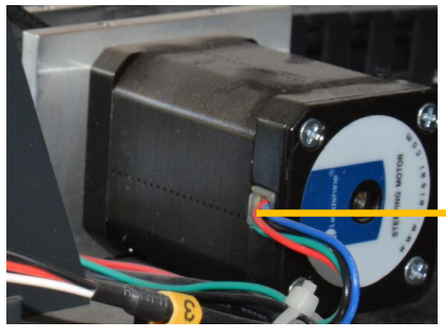
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3.3 Z Axis Movement

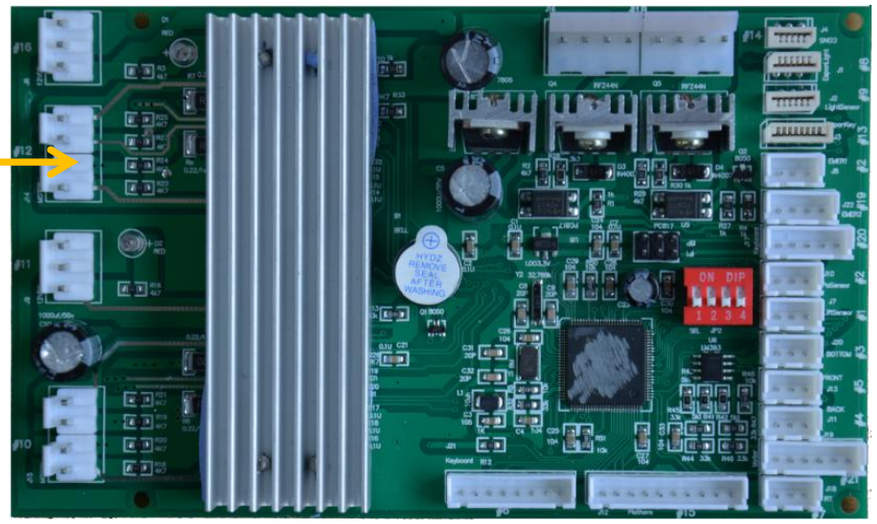
3.3.1 Z Axis Control System



Z Axis Motor



Power Wire of
Z Axis Motor#12



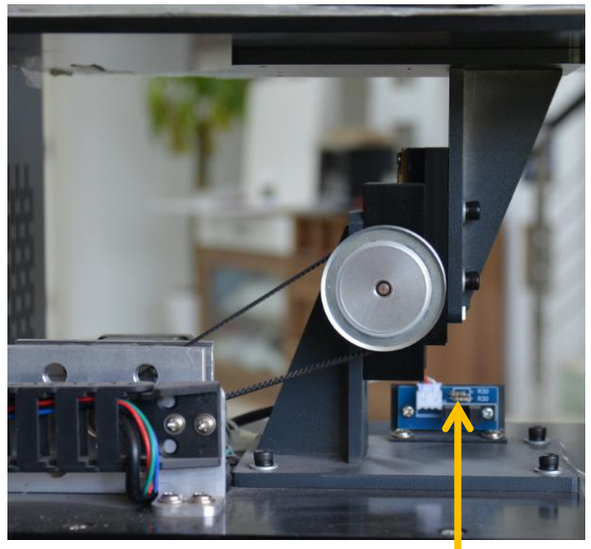
SCM Board

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3.3 Z Axis Movement

3.3.1 Z Axis Control System

Down Limit Sensor & Connection on SCM Board

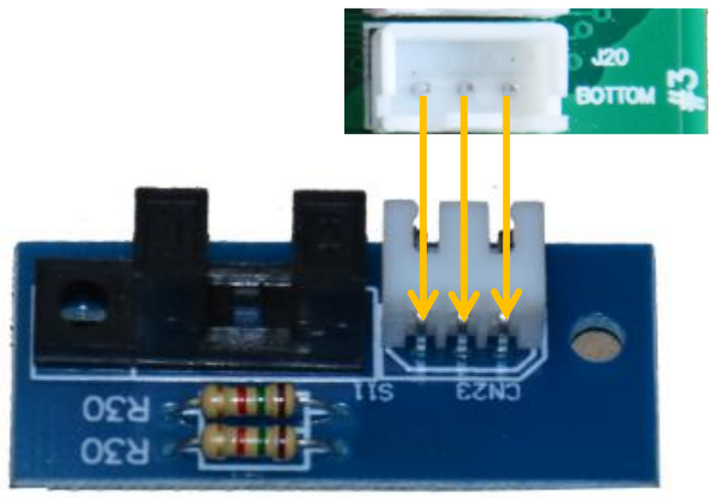


Down Limit Sensor



SCM Board

Down Limit Sensor Connection #3



Enlarged View

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3.3 Z Axis Movement

3.3.1 Z Axis Control System

- UP Limit Sensors & Connection on SCM board

UP Limit sensor Sender



UP Limit Sensor Receiver



UP Limit Sensor Sender Connection #2

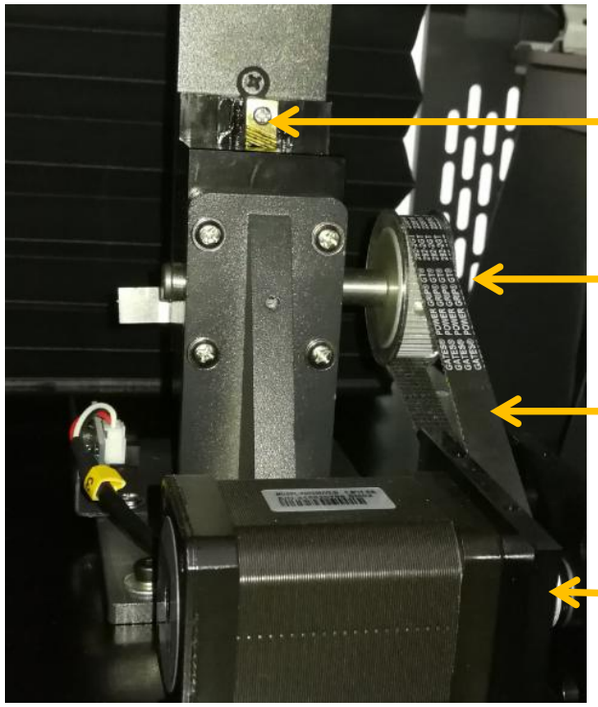
UP Limit Sensor Receiver Connection #19

SCM Board

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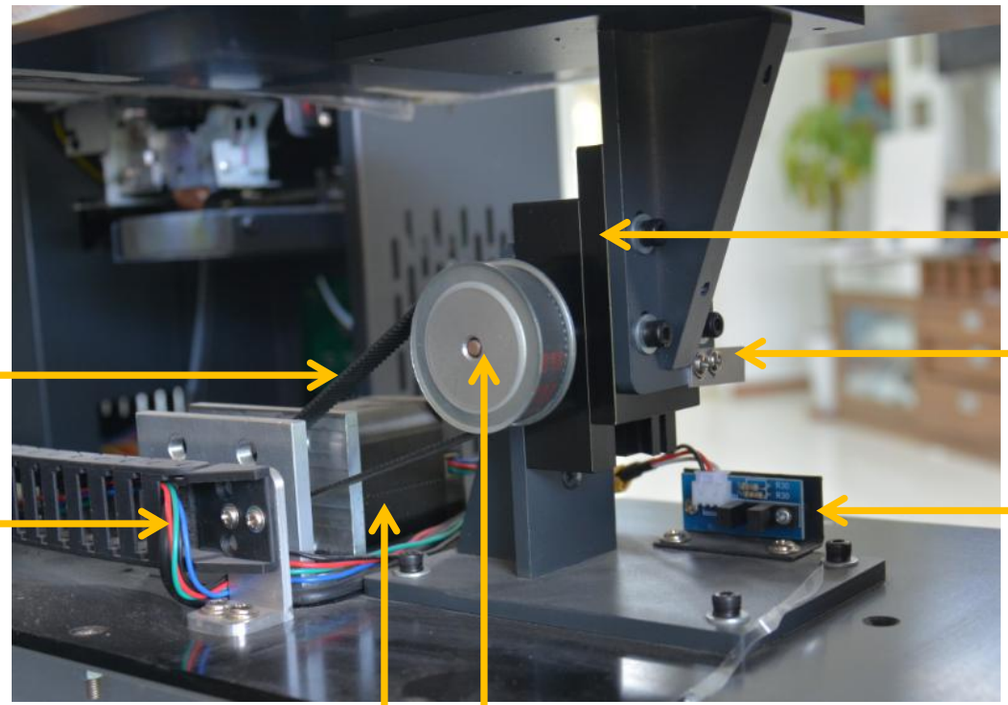
3.3 Z Axis Movement

3.3.2 Z Axis Drive System



Front View

Side View



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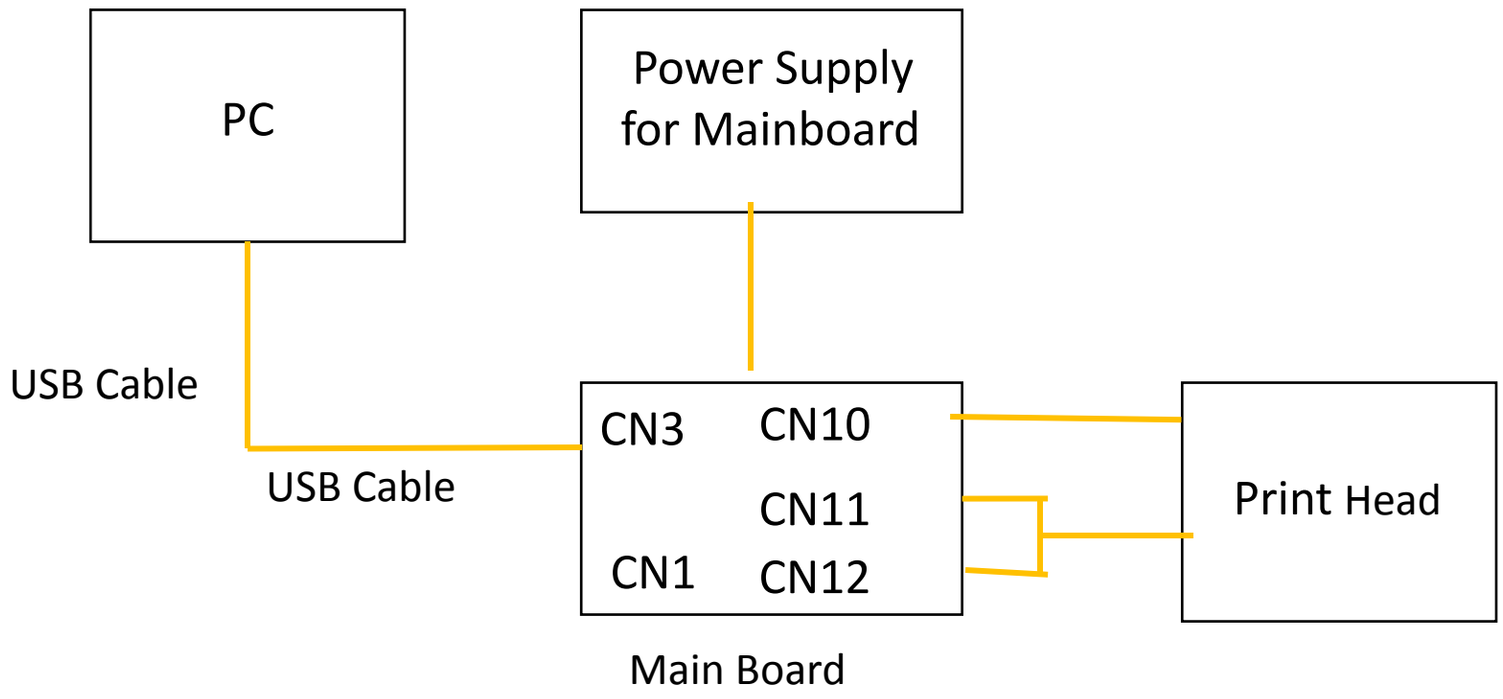
4.1.1 Printing Data Transmission

4.1.2 Carriage Movement

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4.Ink System

4.1.1 Printing Data Transmission



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4.Ink System

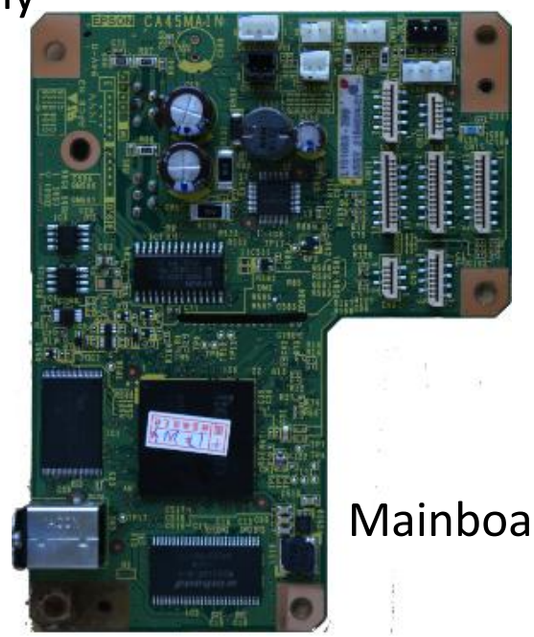
4.1.1 Printing Data Transmission

- Power Supply for Mainboard



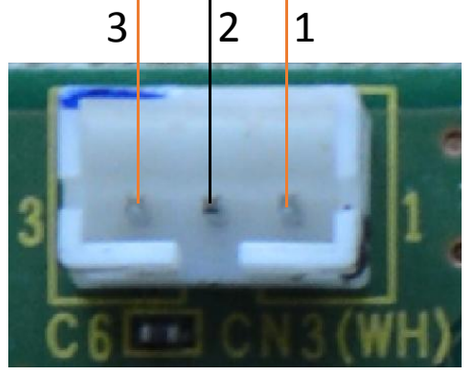
CN3

Power Supply



Mainboard

Enlarged View



CN3

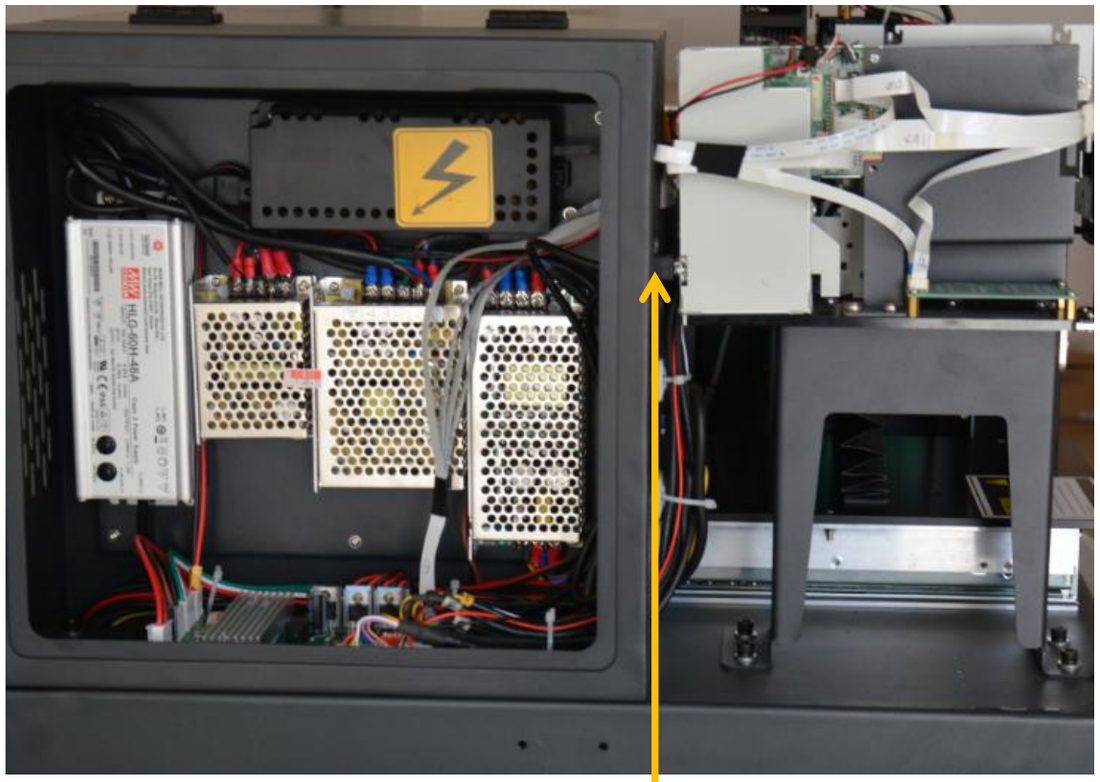
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4.Ink System

4.1.1 Printing Data Transmission



USB Port

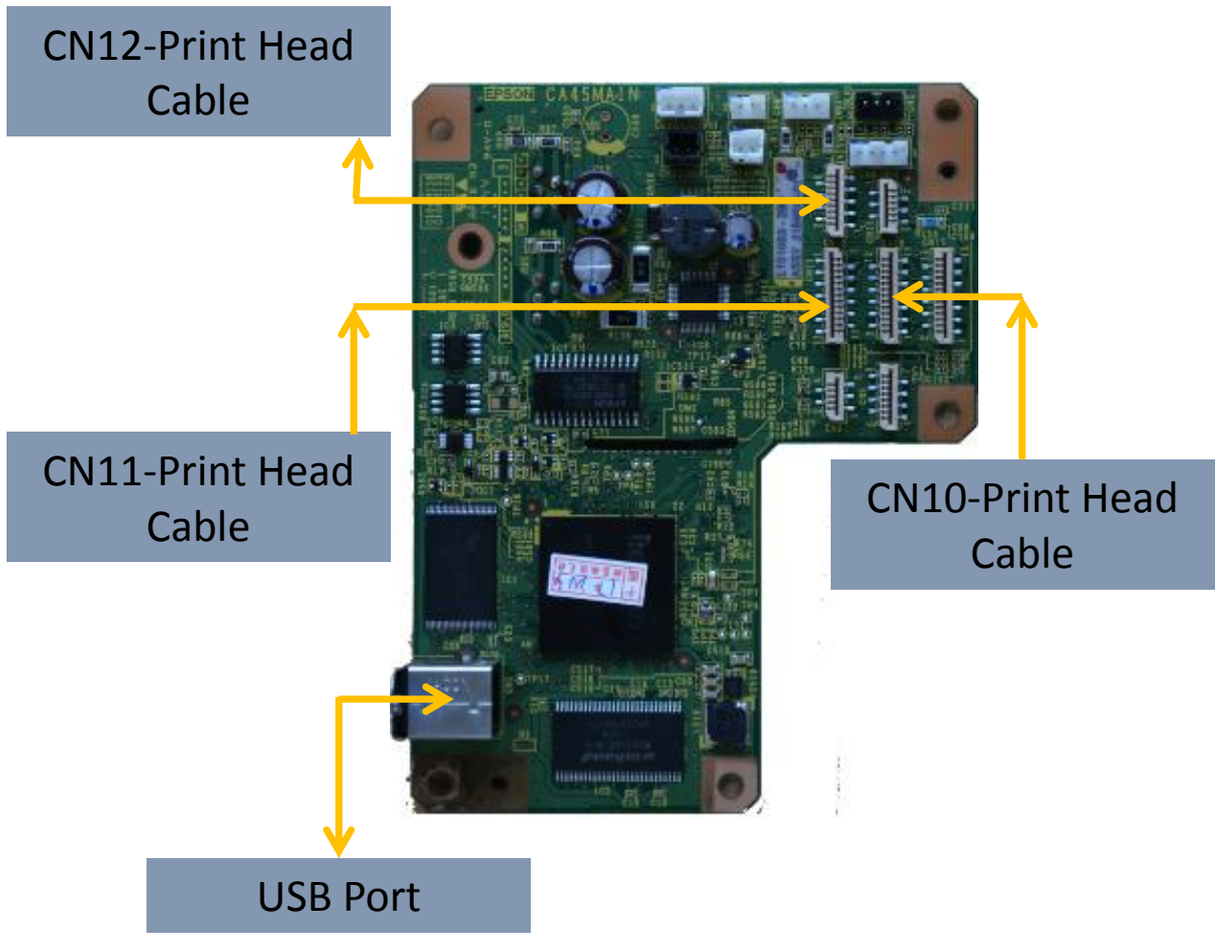


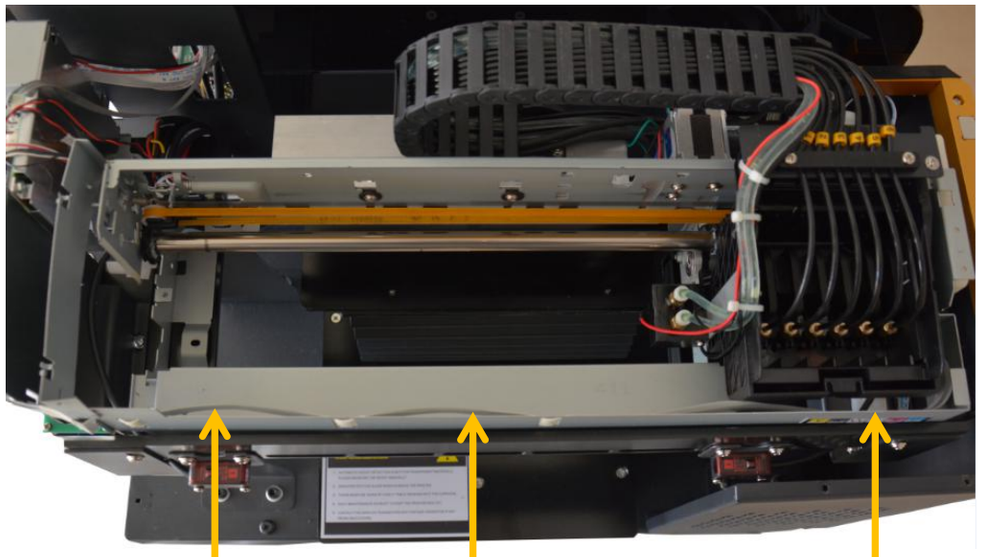
USB Port on Mainboard

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4.1 Ink System

4.1.1 Printing Data Transmission

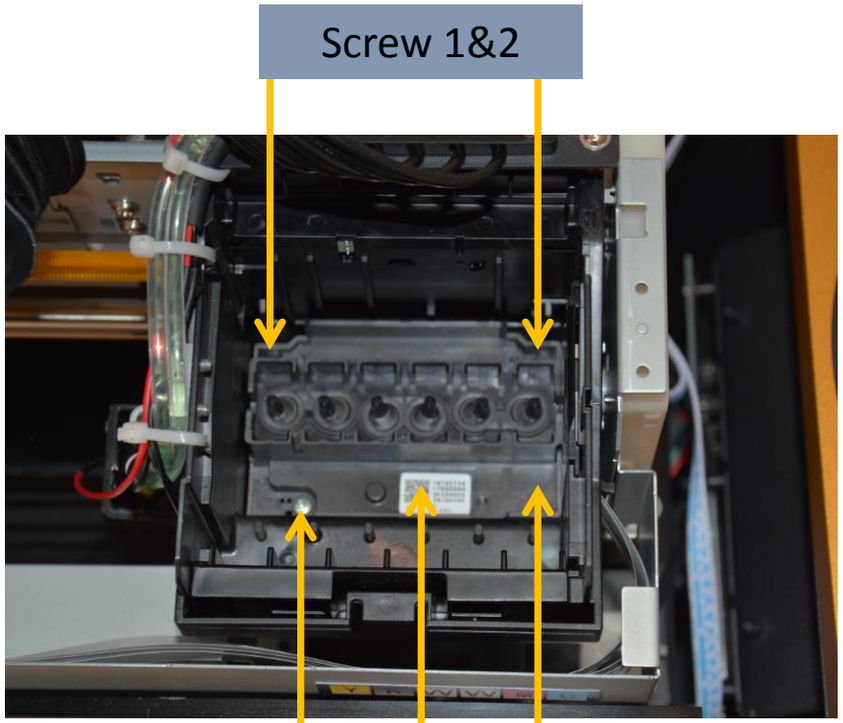


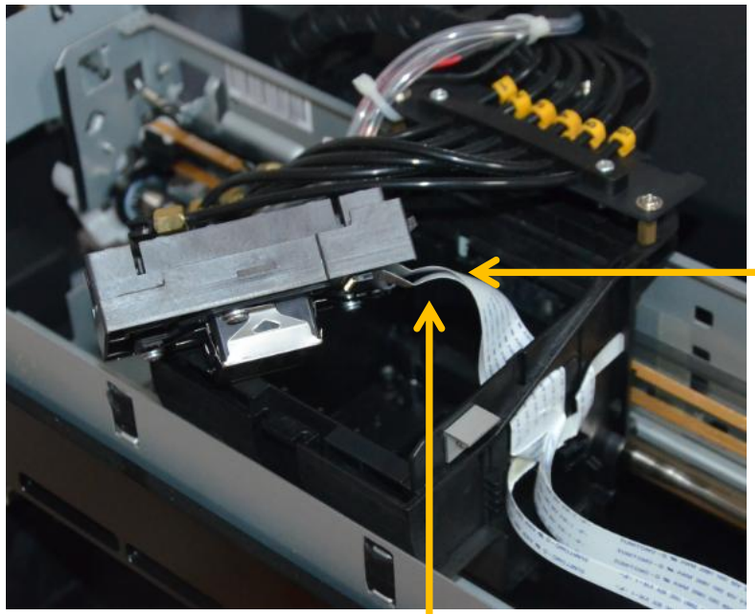


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4.Ink System

4.1.1 Printing Data Transmission

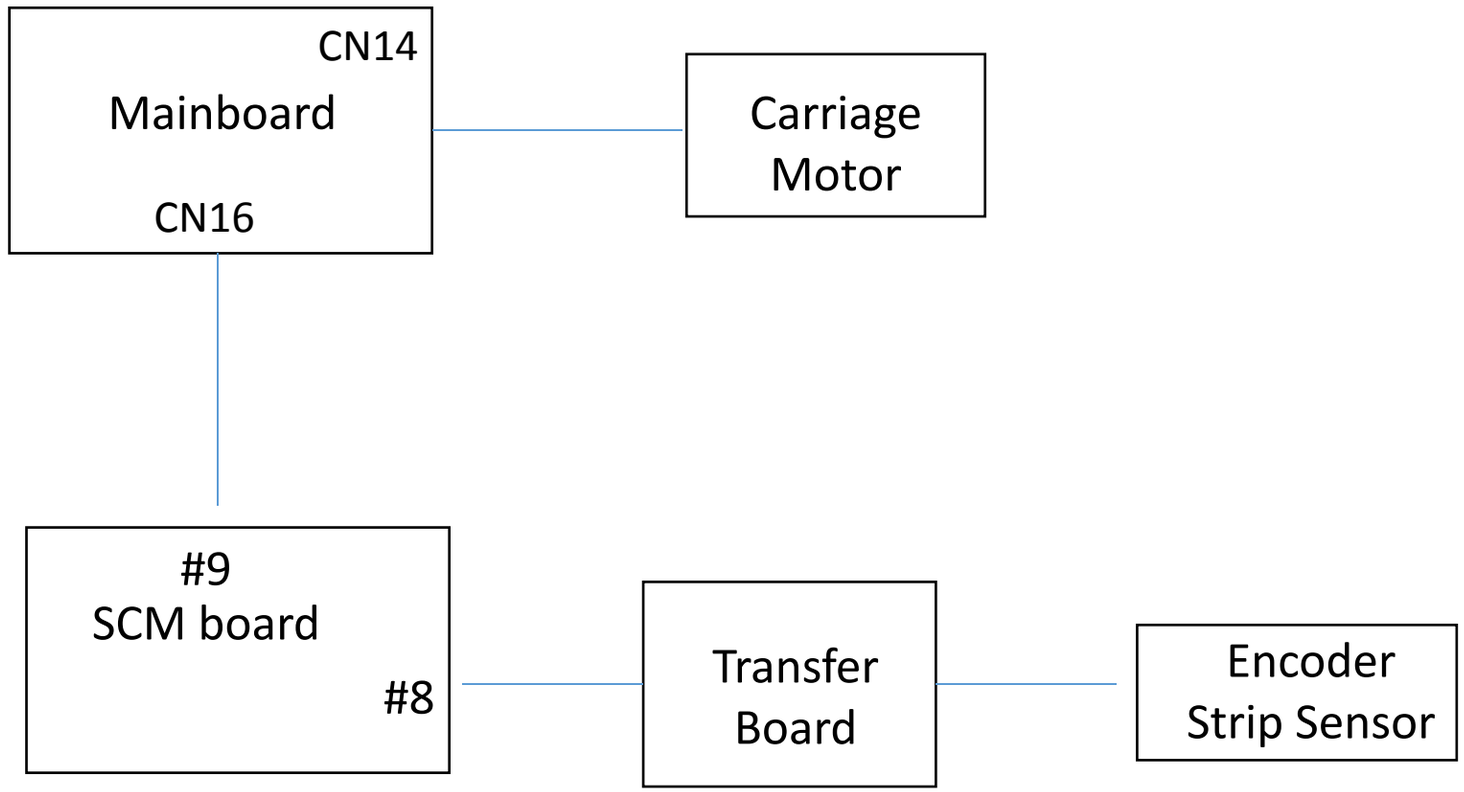




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4.Ink System

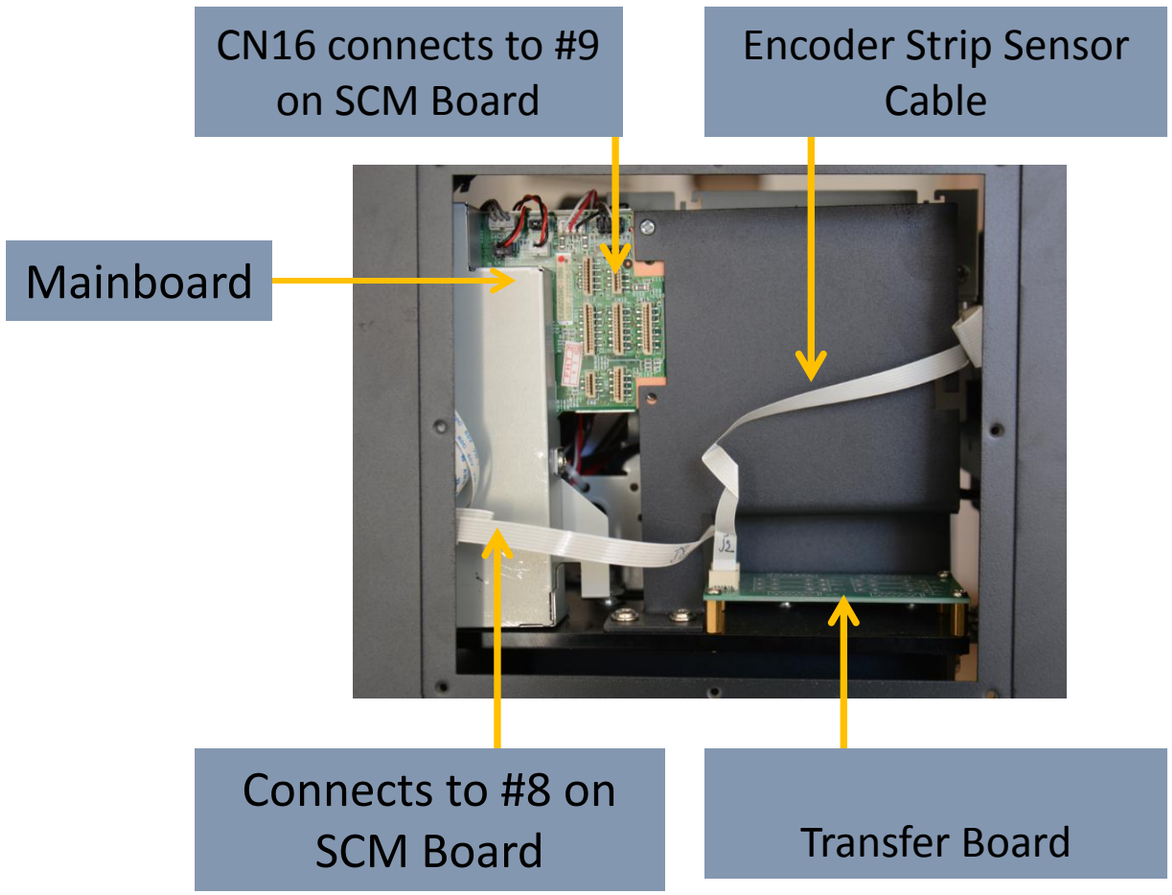
4.1.2 Carriage Movement & Encoder Strip

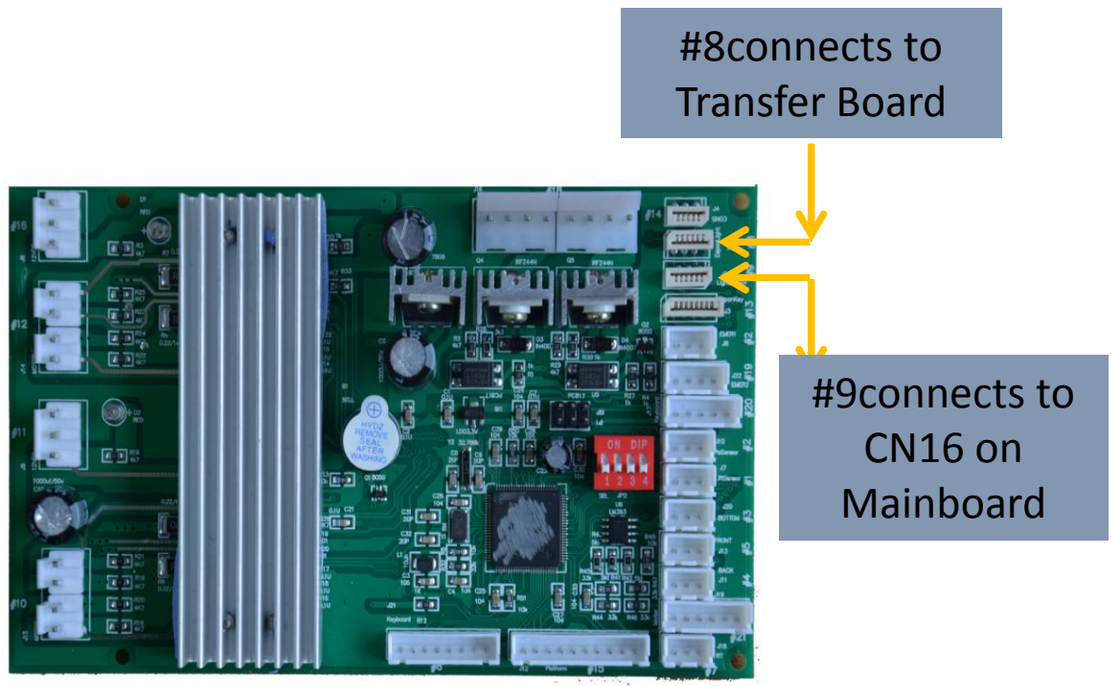


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4. Ink System

4.1.2 Carriage Movement & Encoder Strip



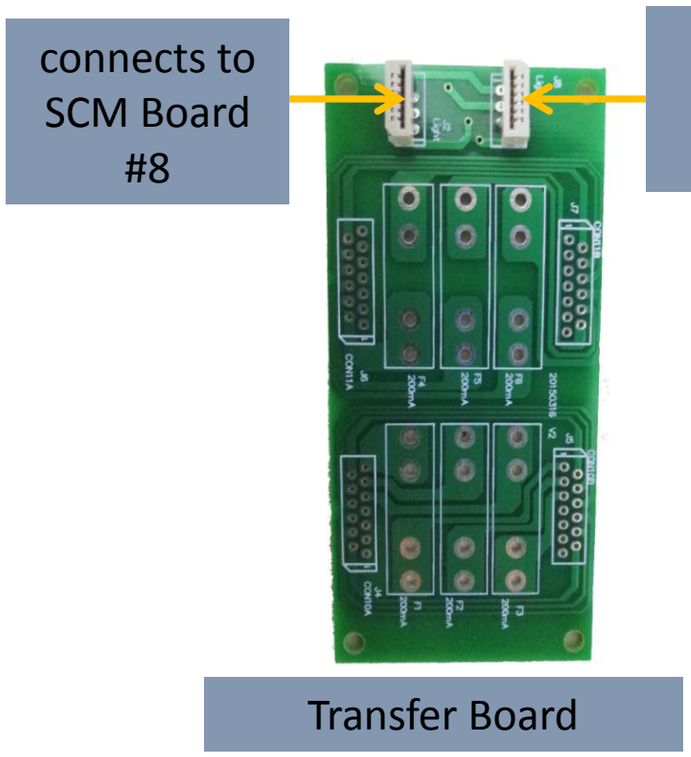


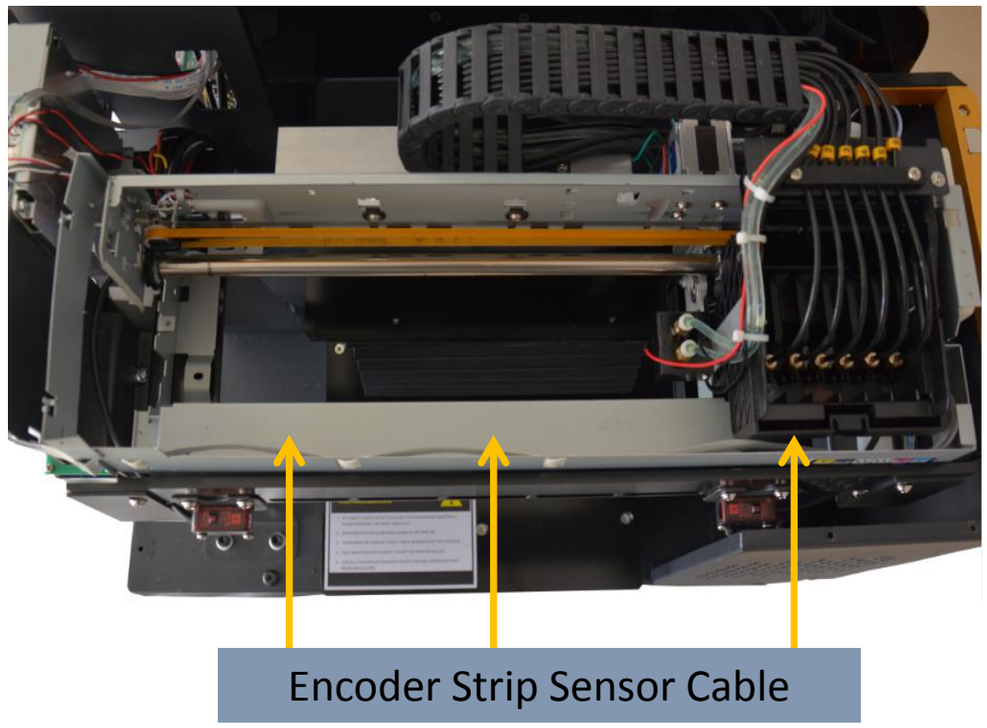
SCM Board

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4. Ink System

4.1.2 Carriage Movement and Encoder Strip

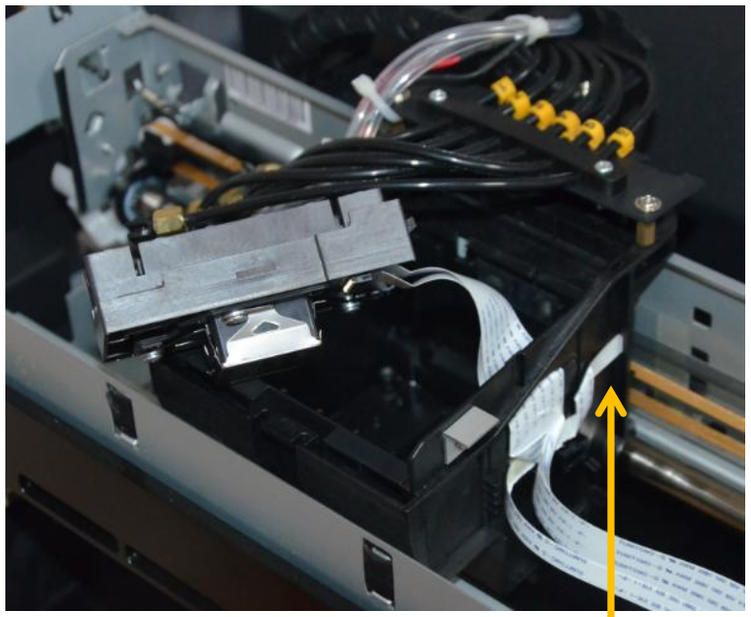




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4. Ink System

4.1.2 Carriage Movement and Encoder Strip

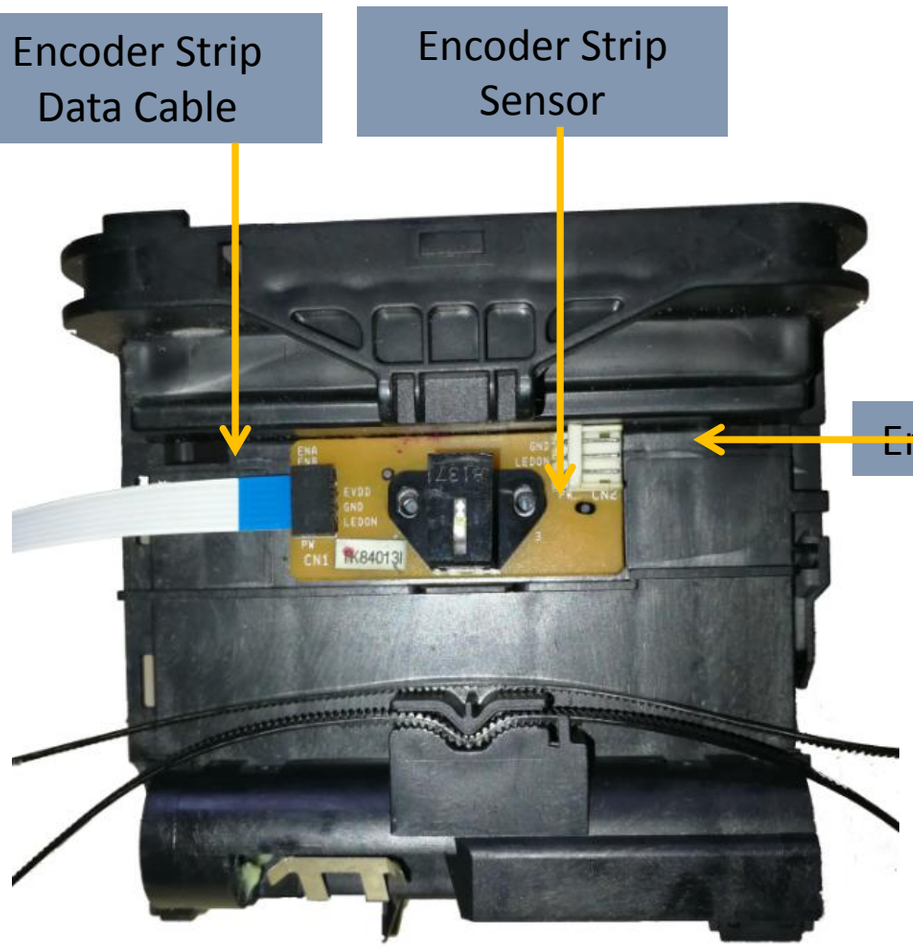


Encoder Strip Data Cable

Encoder Strip Data Cable

Encoder Strip Sensor

Empty

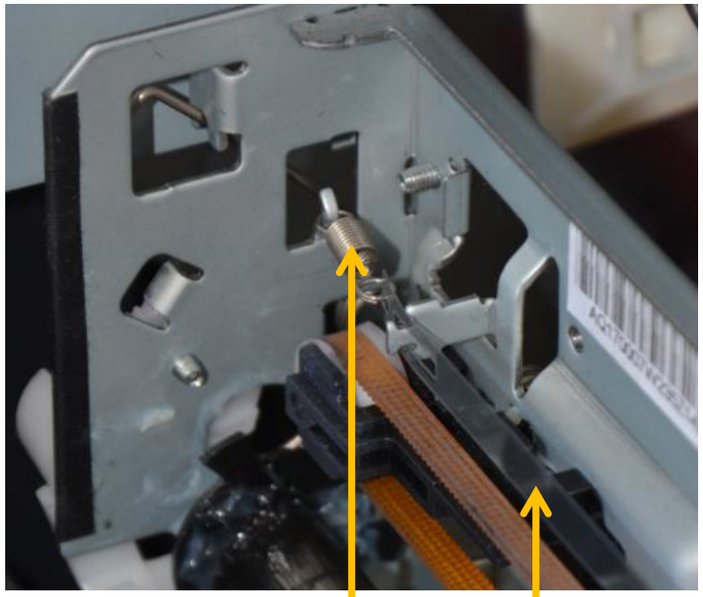


Carriage

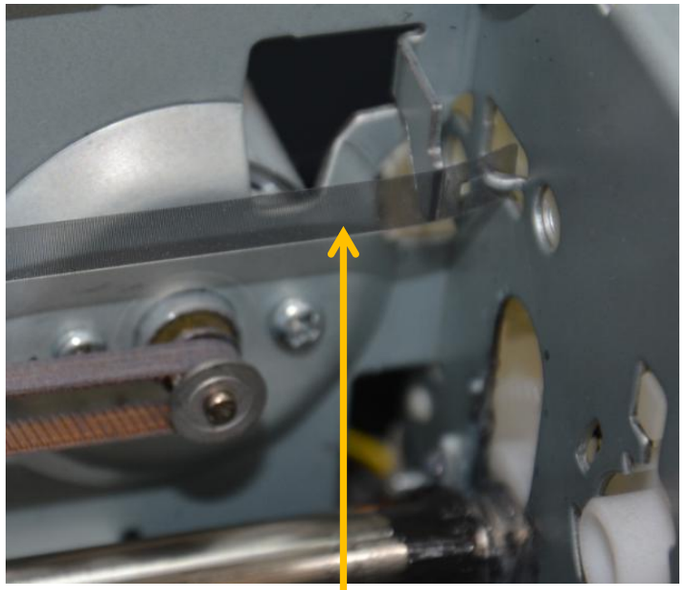
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4. Ink System

4.1.2 Carriage Movement and Encoder Strip



Left Side of Carriage Frame

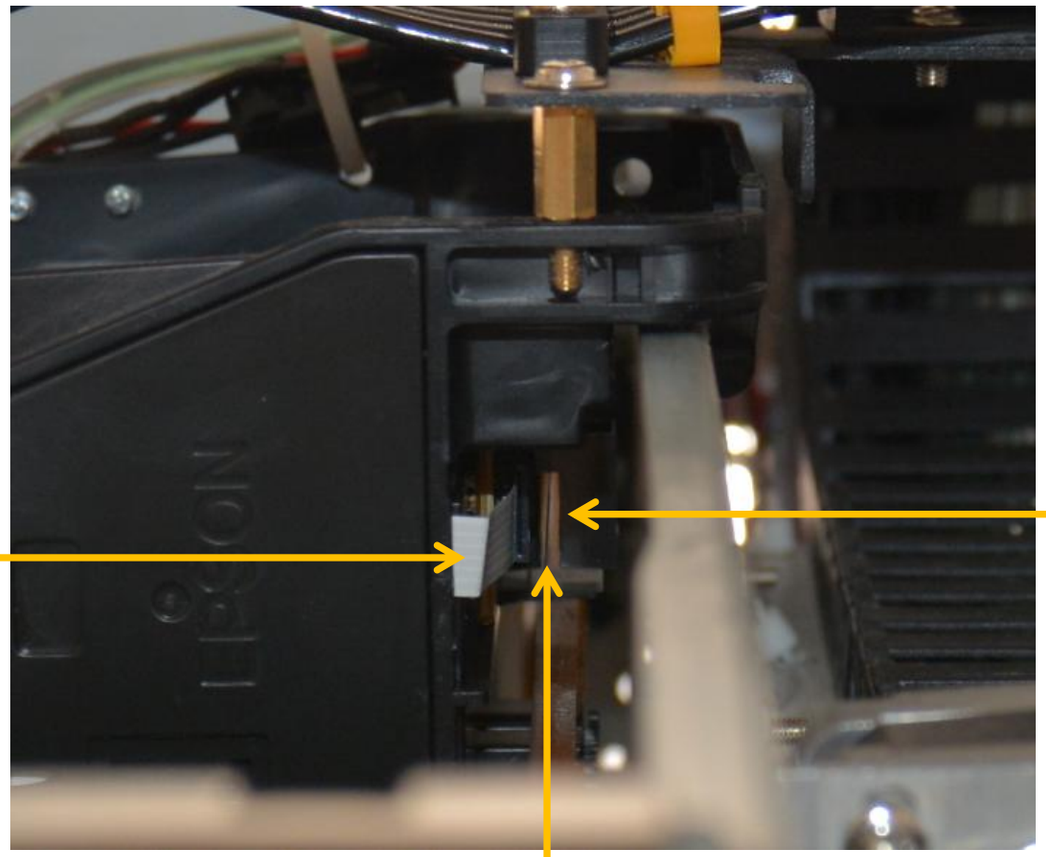


Right Side of Carriage Frame

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4. Ink System

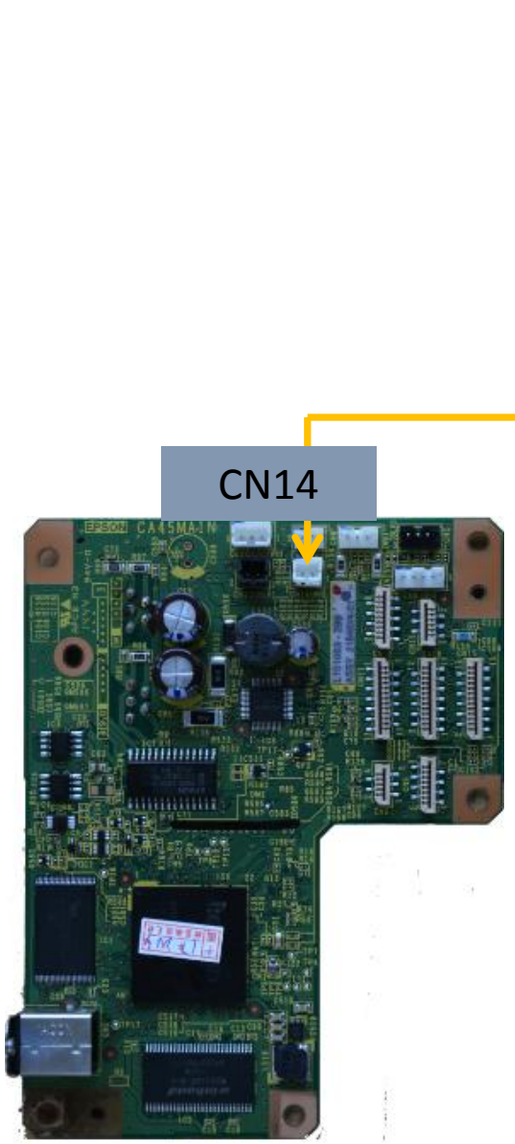
4.1.2 Carriage Movement and Encoder Strip

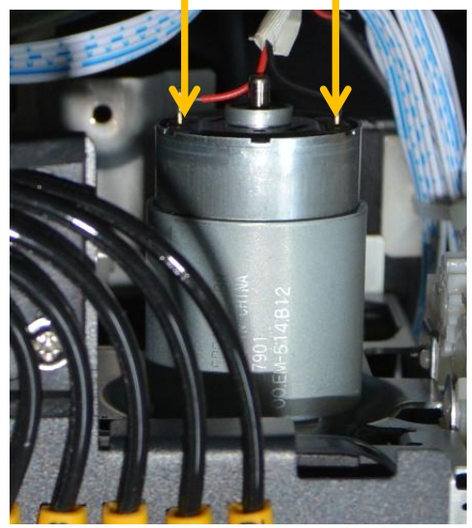


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4.Ink System

4.1.2 Carriage Movement and Encoder Strip



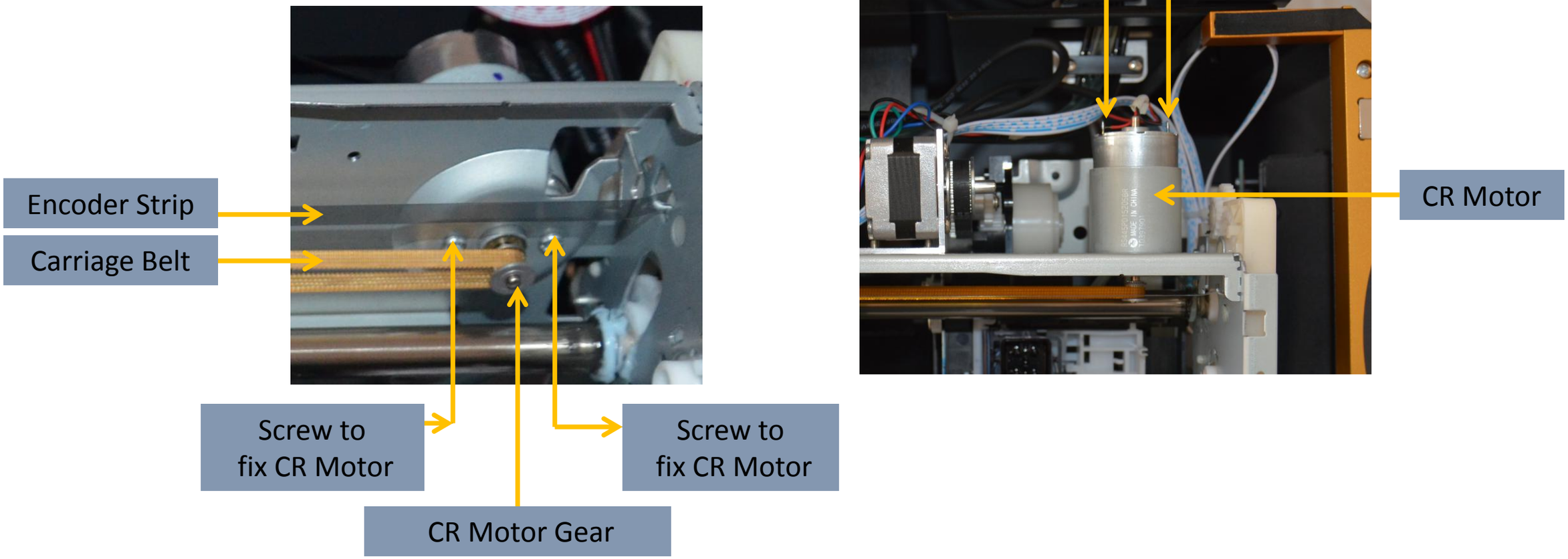


CR Motor Power Wire
on Mainboard

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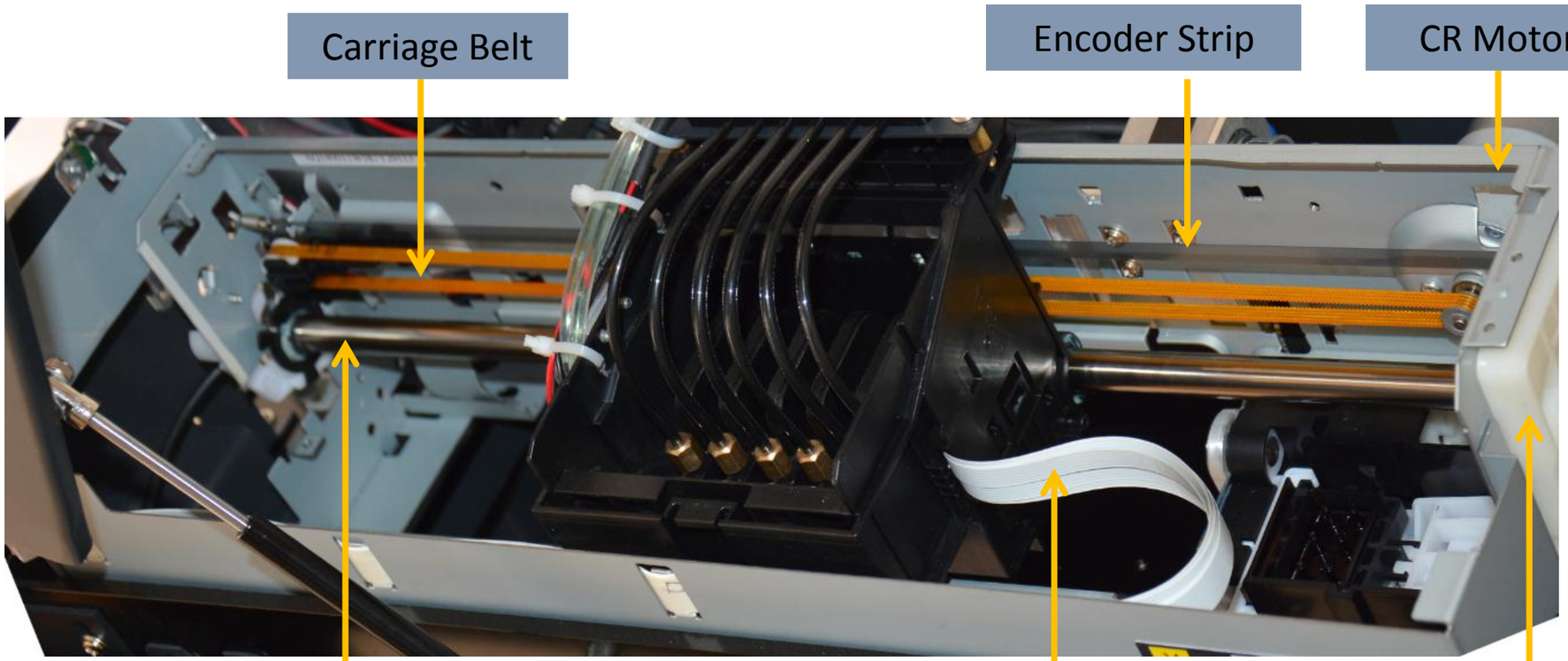
4.Ink System

4.1.2 Carriage Movement and Encoder Strip



4.Ink System

4.1.2 Carriage Movement and Encoder Strip



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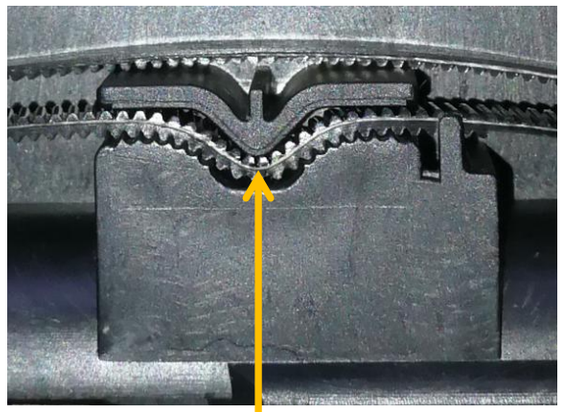
4.Ink System

4.1.2 Carriage Movement and Encoder Strip

- Carriage Belt fixing Position



Back of Carriage



Carriage Belt

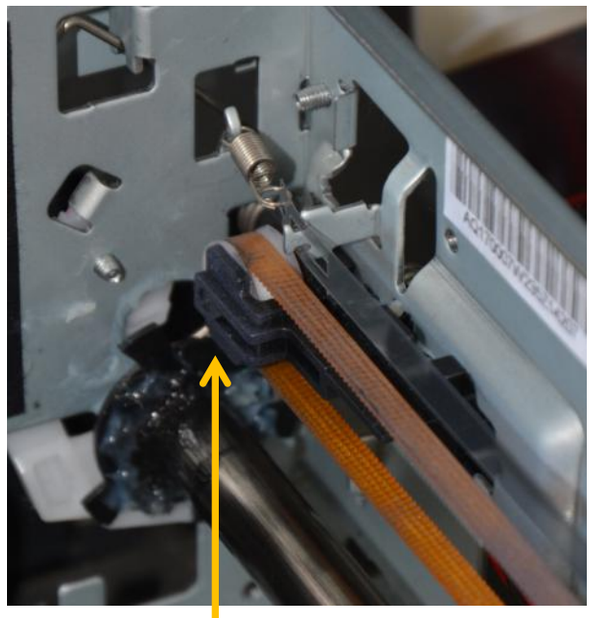
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4.Ink System

4.1.2 Carriage Movement and Encoder Strip

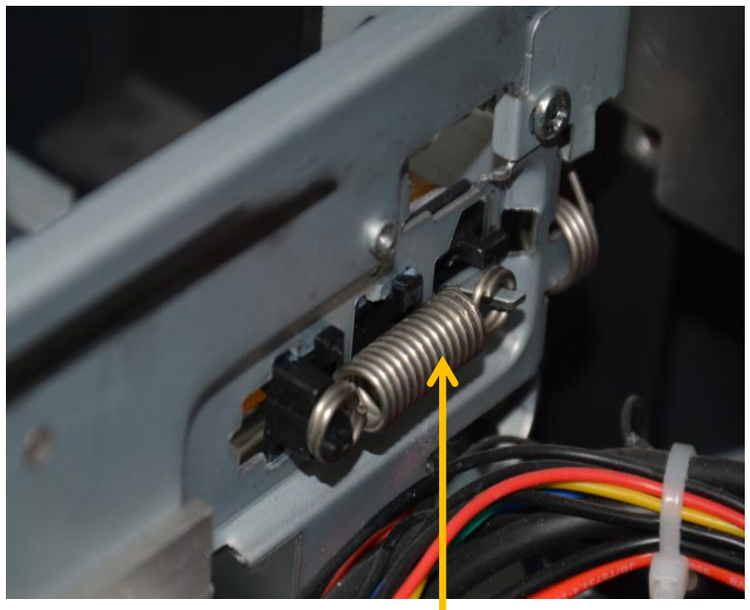
- Carriage Belt Fixing at Left Side

Left Side of Carriage Frame



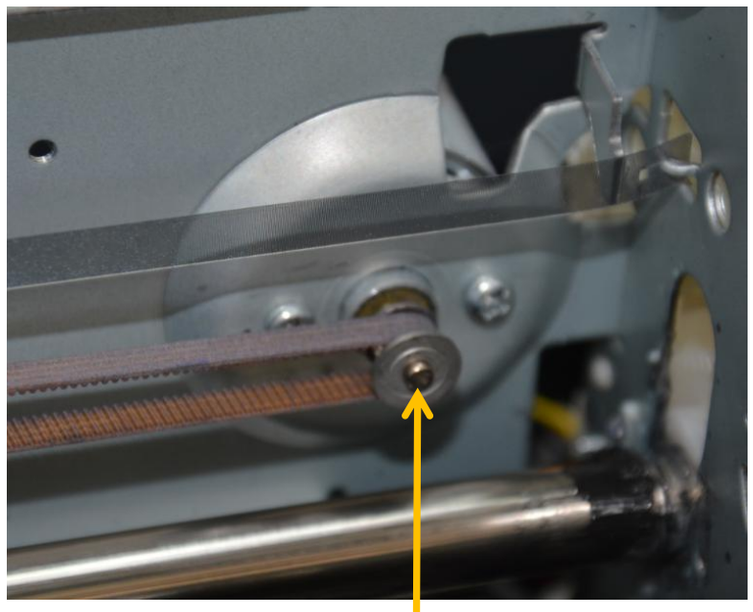
Carriage Belt Clip

Left End of Back



Spring to fix Clip

Right Side of Carriage Frame

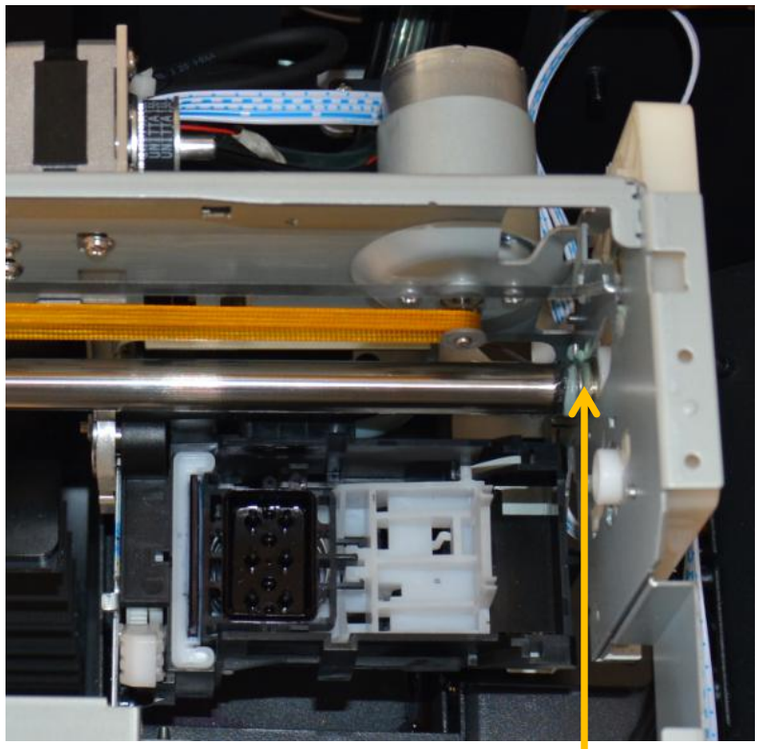


CR Motor Gear

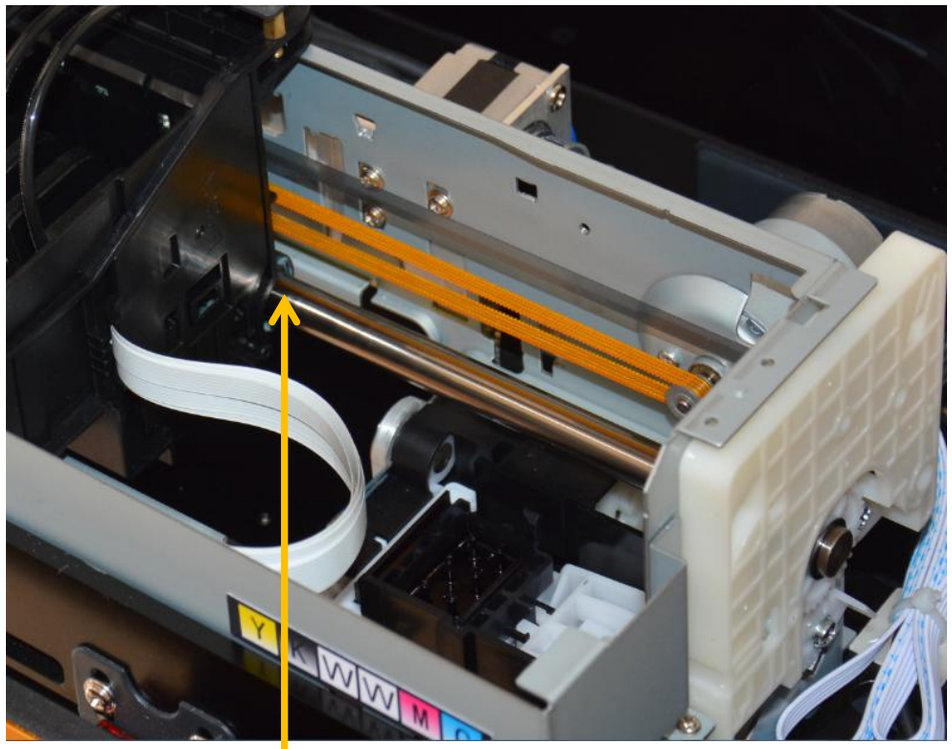
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4.Ink System

4.1.2 Carriage Movement and Encoder Strip



Carriage Guiding Bar &
Gear Group

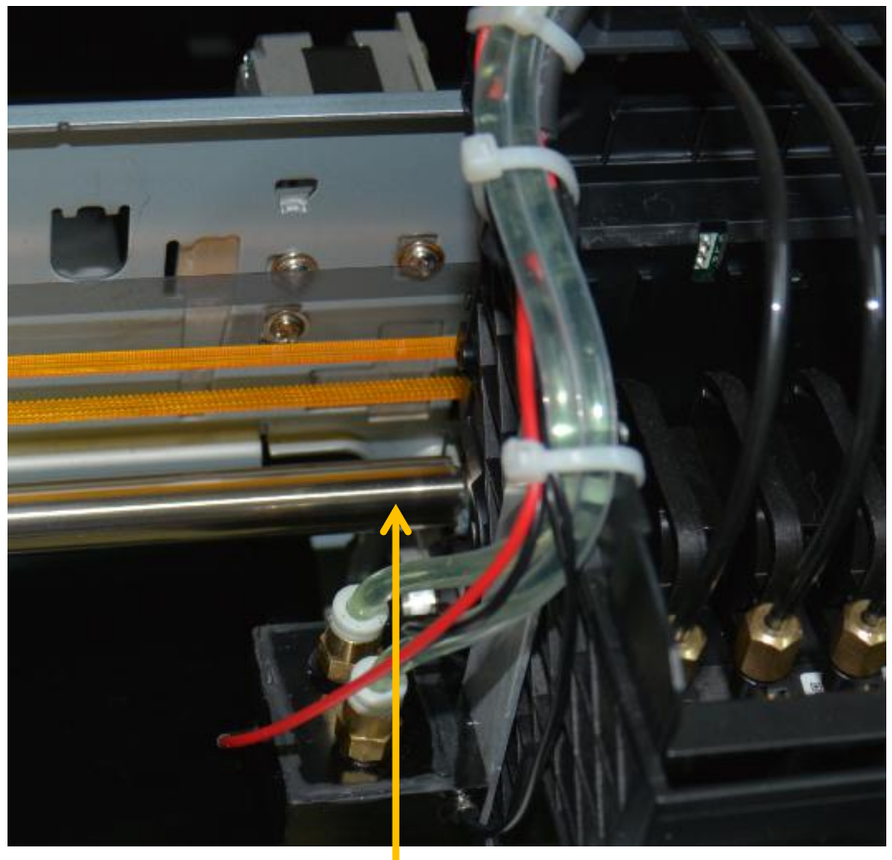


Carriage Guiding Bar Get Through
Carriage

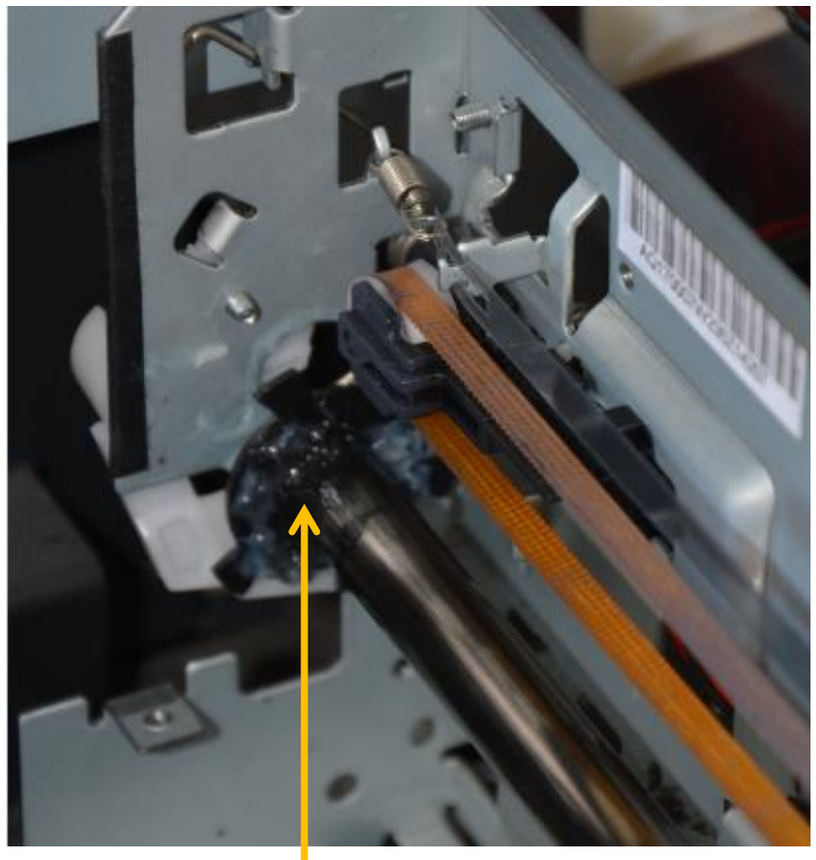
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4.Ink System

4.1.2 Carriage Movement and Encoder Strip



Carriage Guiding Bar Get Through Carriage

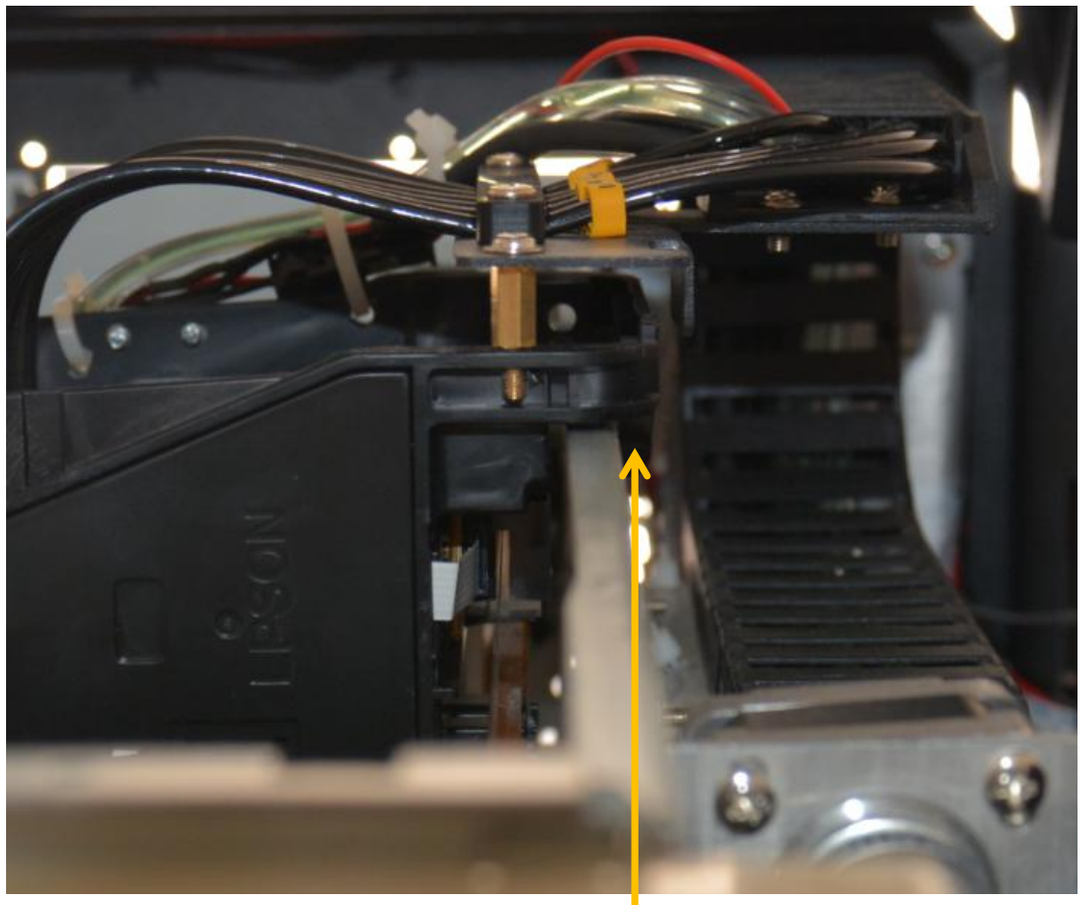


Carriage Guiding Bar At Left Side

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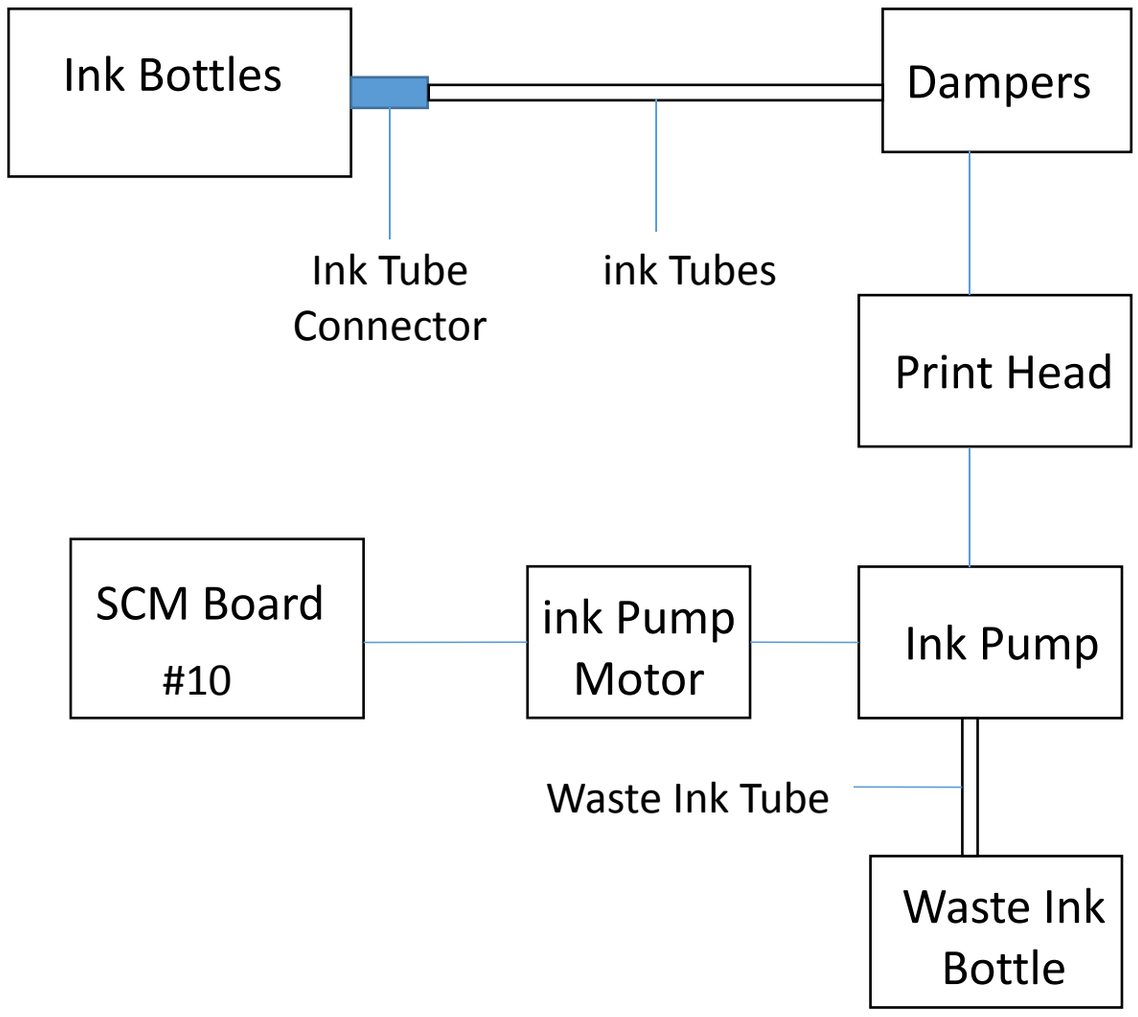
4.Ink System

4.1.2 Carriage Movement and Encoder Strip



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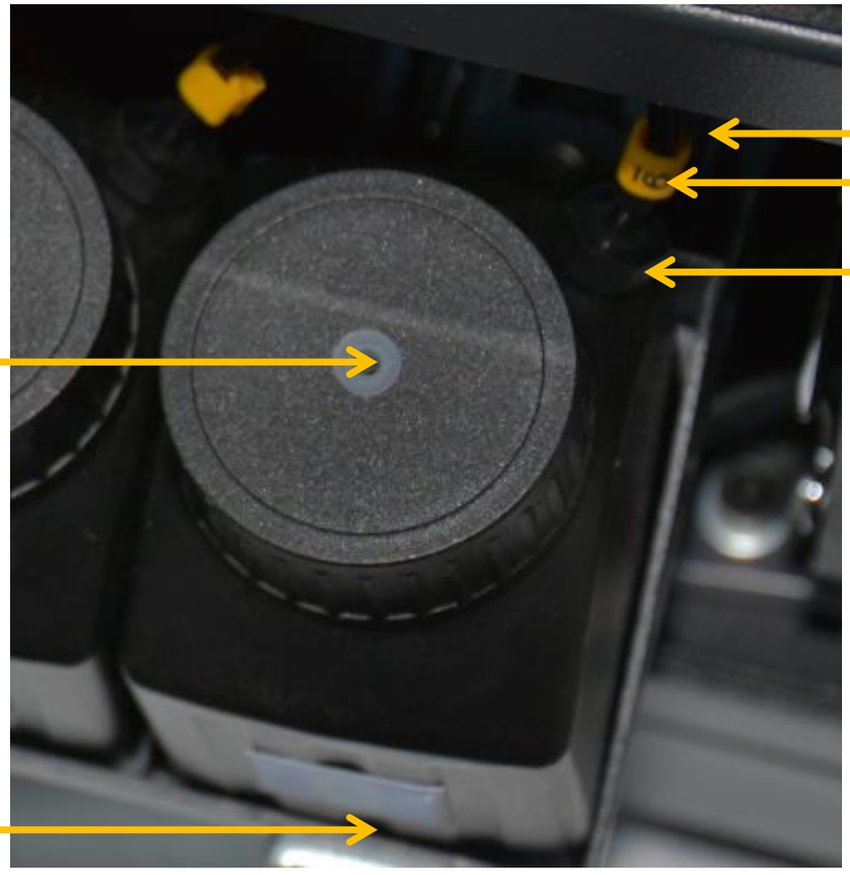
4. Ink system



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4.Ink System

- Ink Bottles

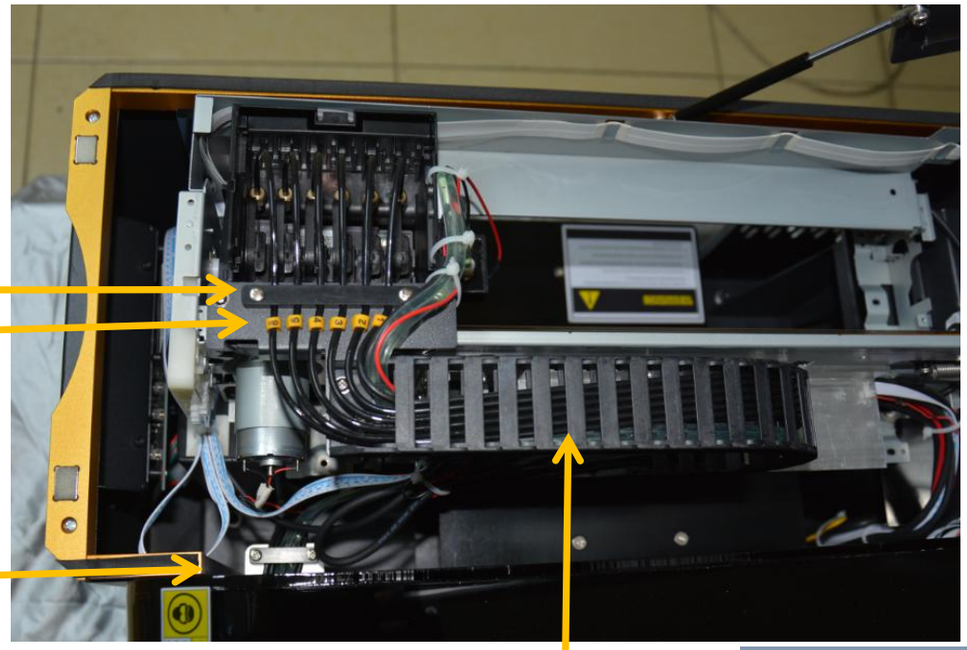


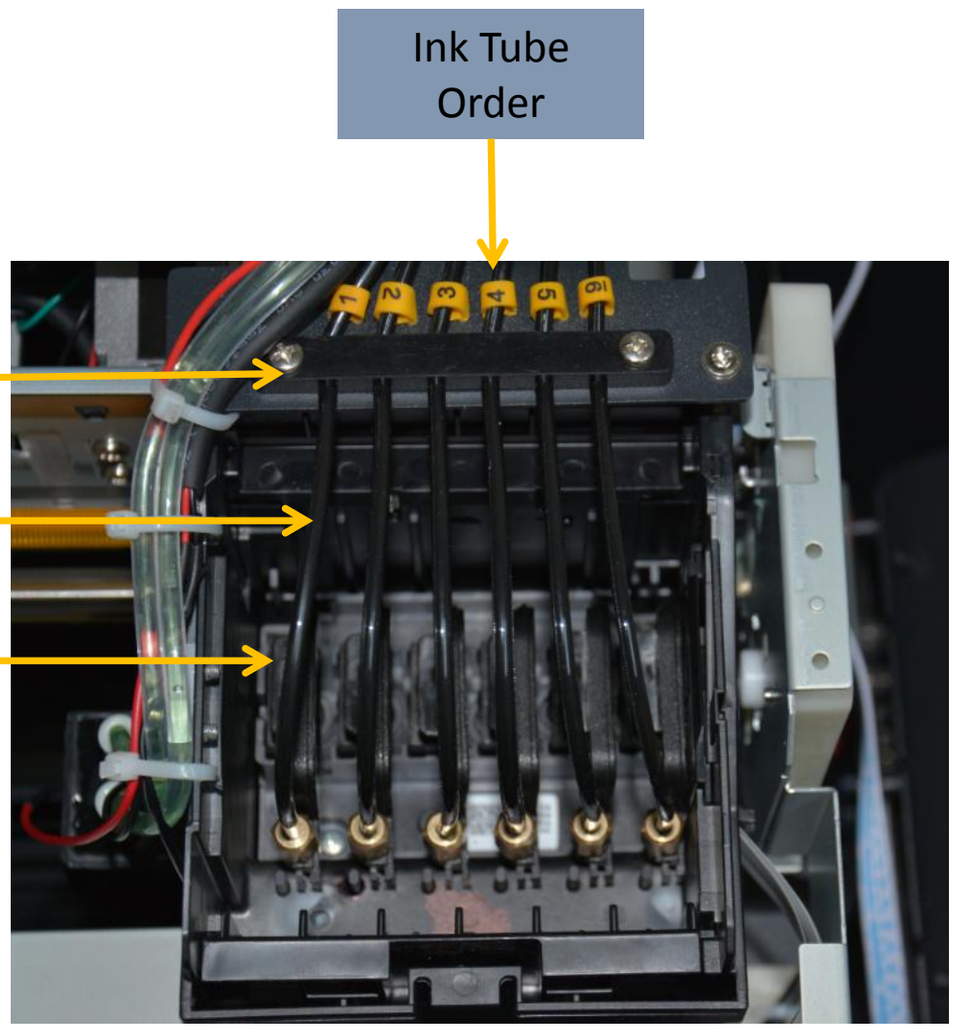
Ink Tubes Order



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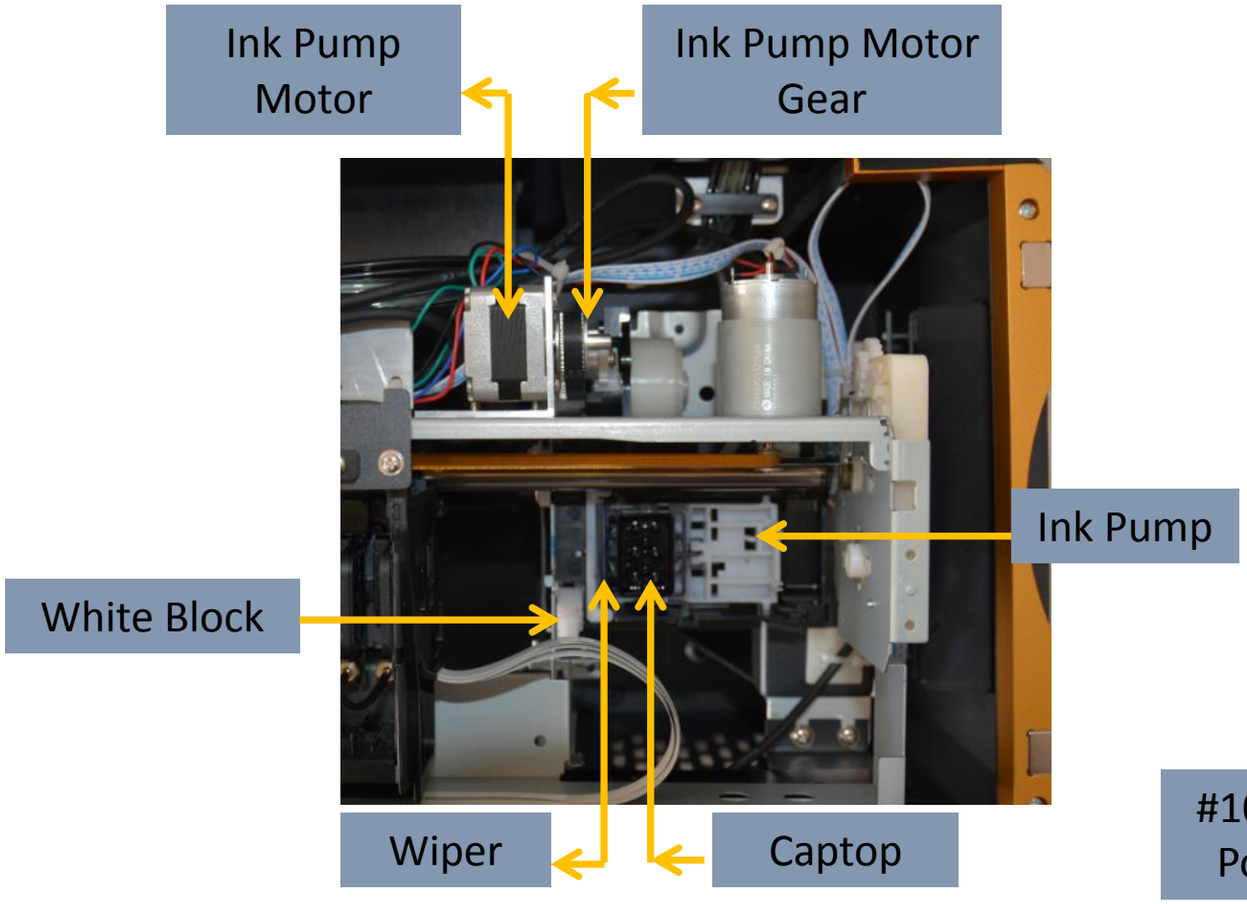
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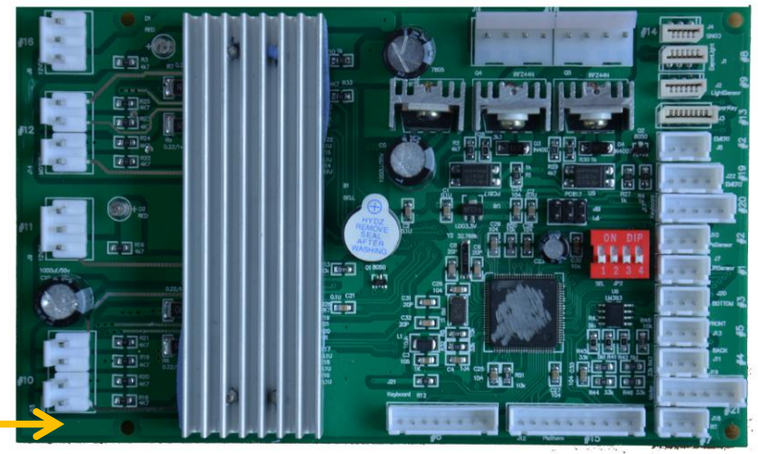


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4.Ink System



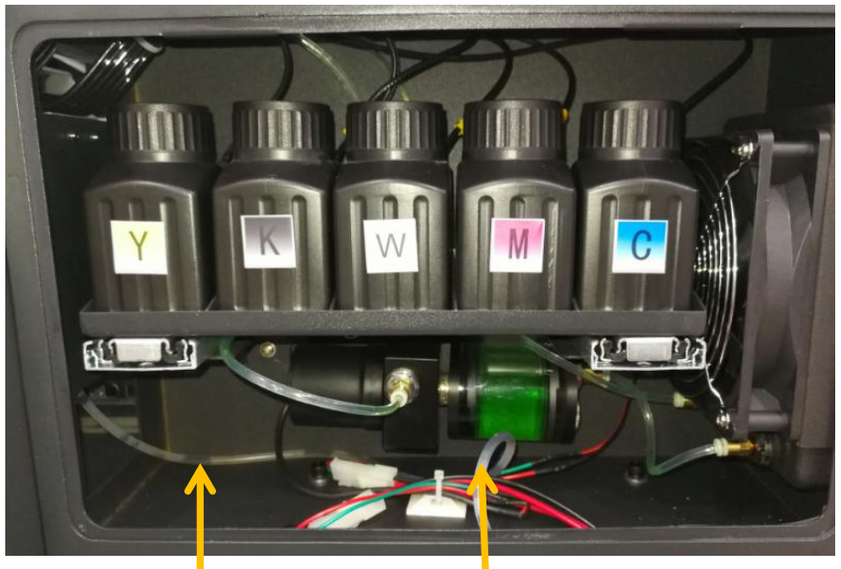
SCM Board

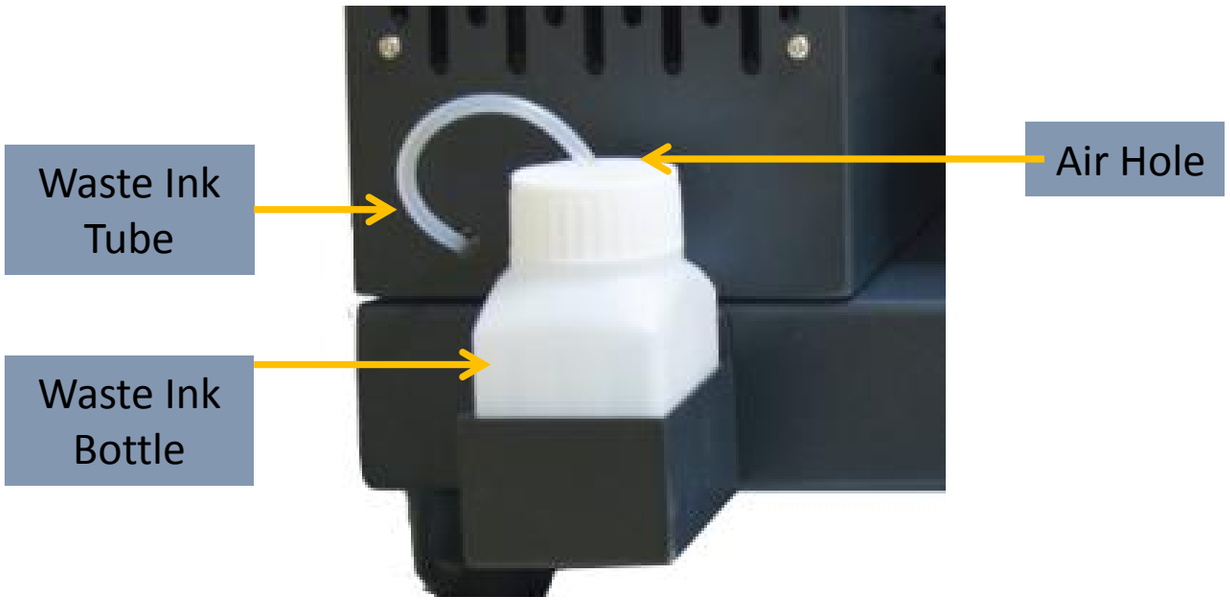


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4.Ink System

- Waste Ink Tube

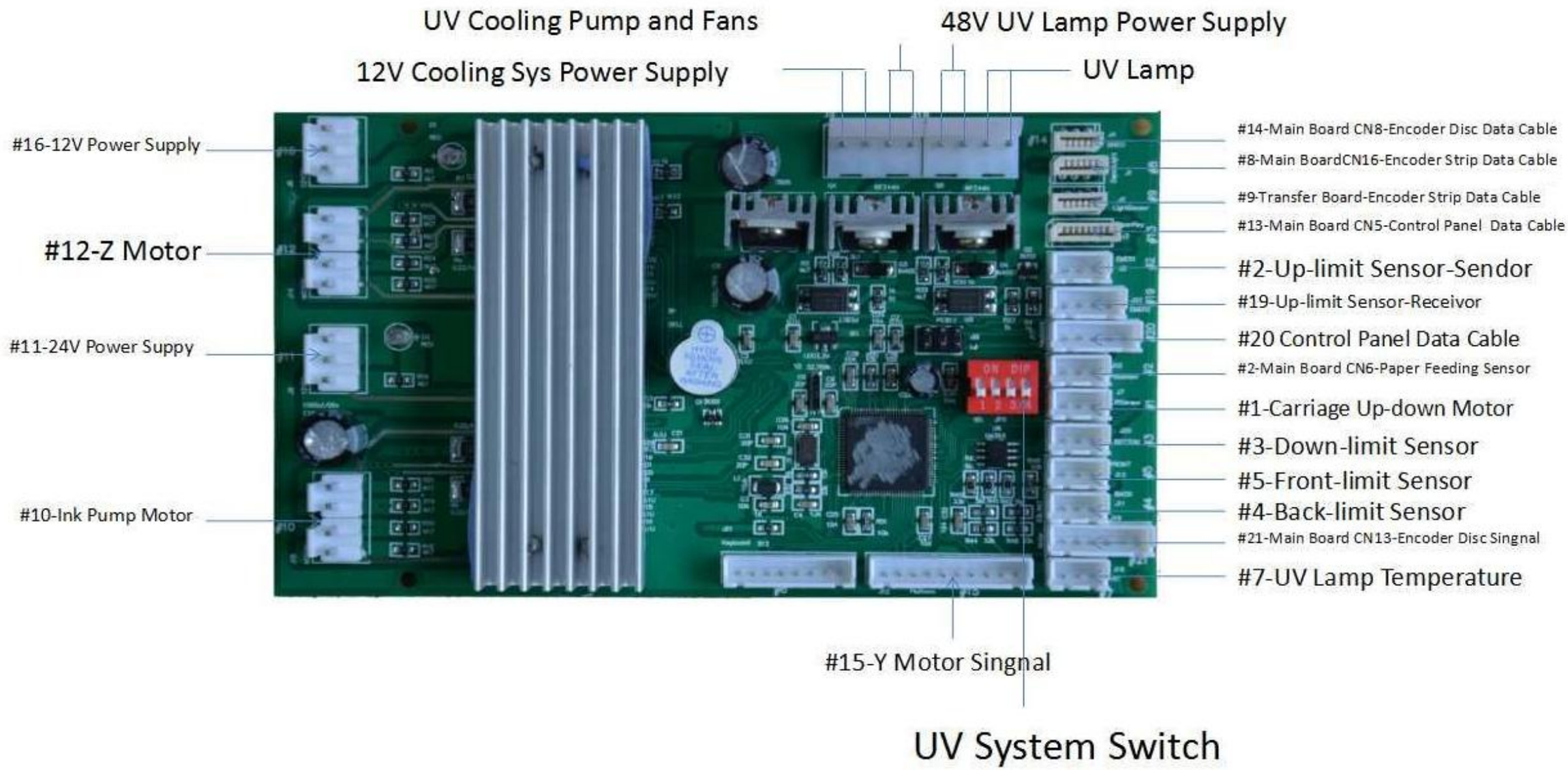




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5. Circuit Board

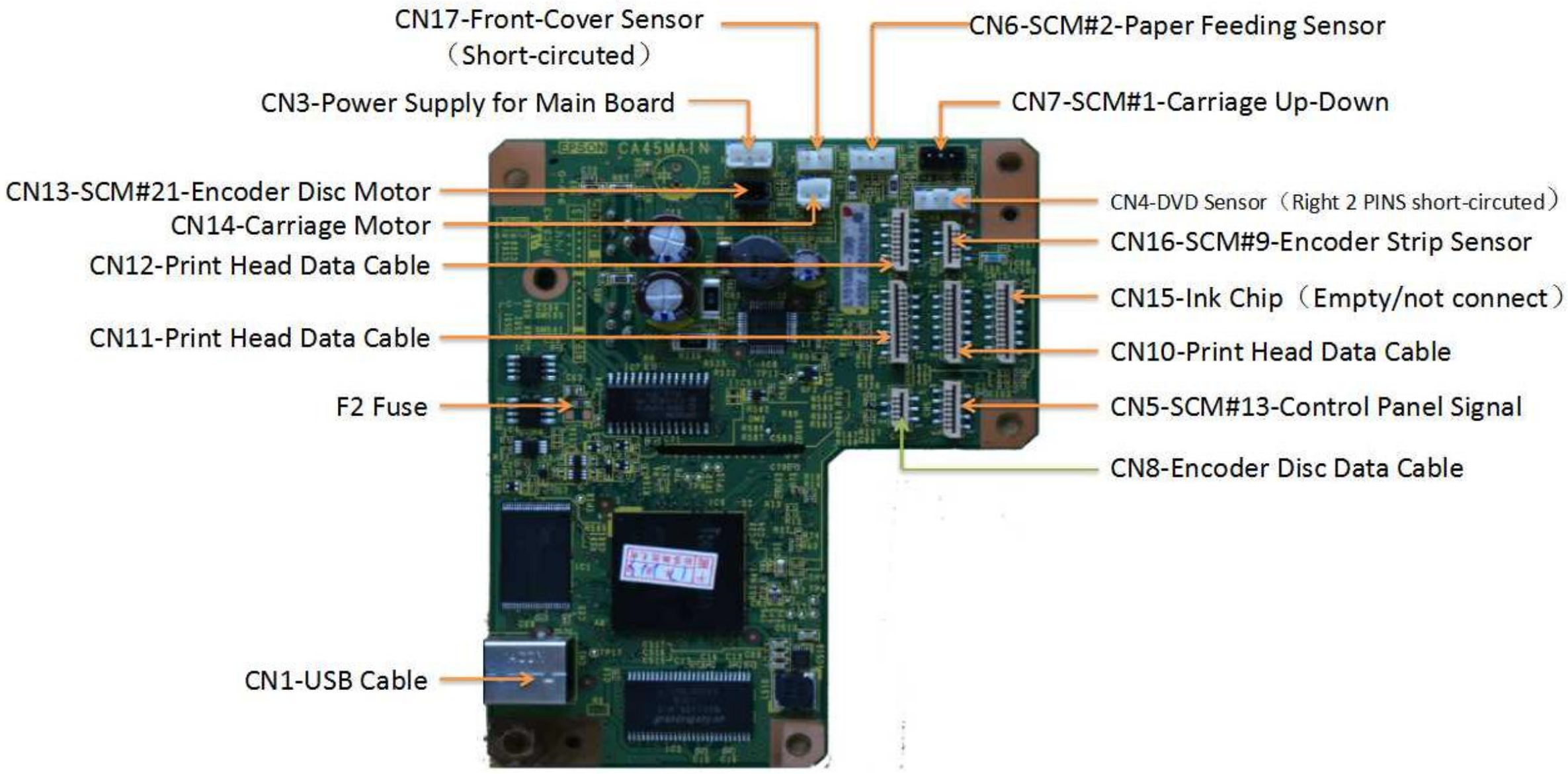
- SCM board



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5.Circuit Board

- Mainboard



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