MICROTEC

APEX QUICK GUIDE

X-Feed

APEX X-Feed Fully Automatic DTF Feeder

One picture per step. Scan the QR code to watch the machine in our video.

Watch the video



Safety first

This machine moves by itself

The arm and suction cups move on their own, and the film tray goes up and down. Keep hands, hair and loose clothes away while it runs.

Reaching in? Stop the machine first

Press the EMERGENCY STOP button before you clear a jam or touch the suction cups.

The heat press next to it is hot

The X-Feed puts film onto your heat press. Never touch the press's heat plates.

220V single-phase power — electrician only

Must be grounded: less than 4 ohms, ground wire thicker than 4 mm², no longer than 65 ft (20 m).

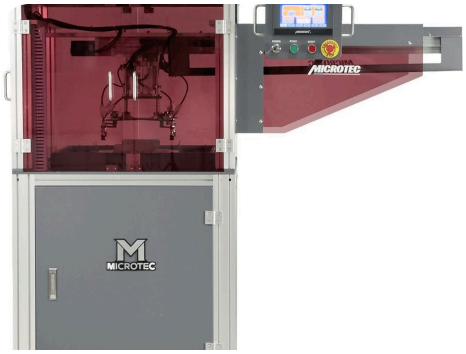
Indoors, dry, level floor

32–104°F, humidity below 80%. Away from water, heavy dust and anything that can burn.

Emergency? Press the red **EMERGENCY STOP** button on the control panel. The machine stops and the light turns red. When it is safe: twist the button to release it, then press the green **START** button to go back to automatic running.

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1 Set up



1. Set it next to your heat press

Level floor. Turn the arm side toward the press so the suction cups can reach the platen. Lock the wheels.



2. Have an electrician connect the power cord (9)

The connections are low on the back of the cabinet (photo). The power cord is (9). It needs 220V single-phase, 9 A, 60 Hz and a good ground. Only an electrician should wire it.



3. Connect clean, dry compressed air (8)

Connect the air hose from your compressor to the air inlet (8). Without air the suction cups cannot pick up film.





4. Connect the network cable to your heat press (7)

Plug one end into the network port (7). Plug the other end into the network port on your X4 / X6 / X8. This is how the press tells the X-Feed when to bring film.

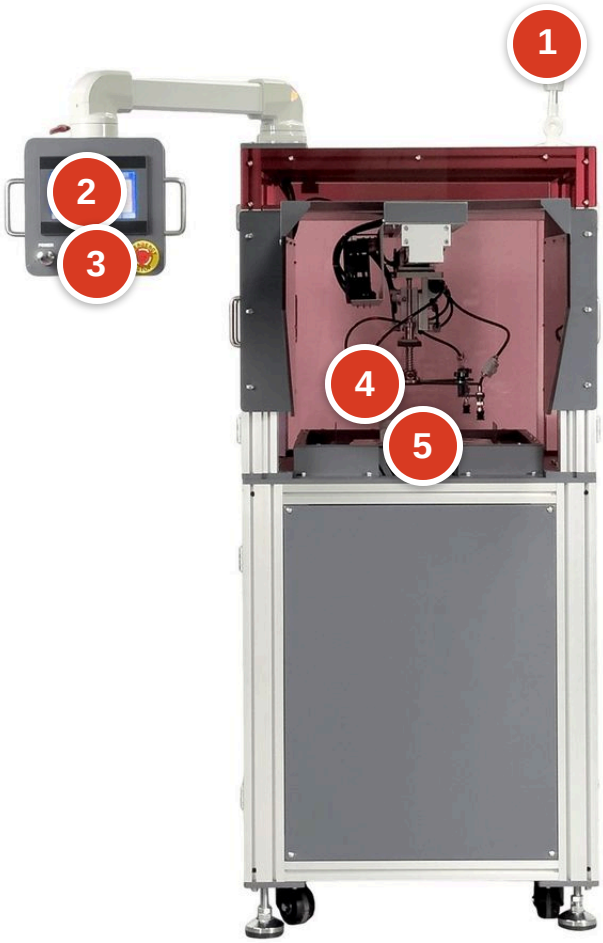
5. Turn on the main breaker, then POWER

Check first: power cord wired (9) and air connected (8). Turn the POWER switch on the control panel. The main screen comes up.

Air supply: set it to **58 psi** (4 bar). Use a compressor that gives at least 4.2 CFM, with a 10-gallon tank or bigger.

First time? Your film size and press position must be taught to the machine once (see **Control panel → Teach**). After that you just pick the saved recipe.

2 Know your machine



1 Status light
Green = running in Auto. Yellow = Teach mode / standby. Red = emergency stop or alarm.

2 Touch screen
Pick a recipe, teach positions, see the count.

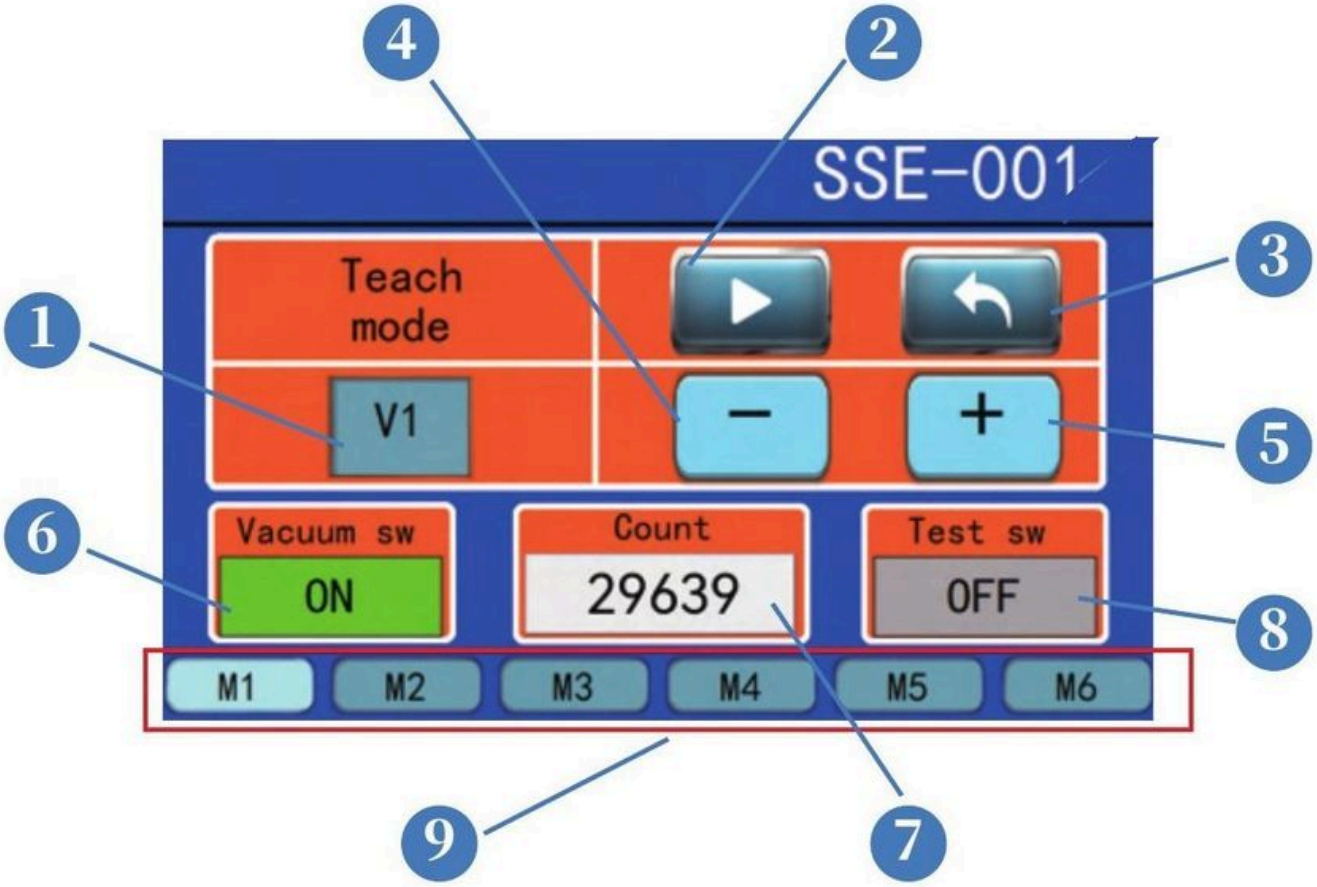
3 POWER · START · RESET · EMERGENCY STOP
The four buttons under the screen. RESET is used after you refill the film tray.

4 Suction cups
Hold the film with vacuum and lay it on the platen. Each cup has its own vacuum switch and a quick-adjust nut.

5 Film tray
Stack your DTF film here. It rises by itself as film is used and lowers when it is empty.

⚠ **Light turns red?** The emergency stop is pressed or there is an alarm. Read the message on the screen.

3 Touch screen



1 V1 (position)
Flashes in Teach mode. Then use − and + to move the suction cups.

2 ▶ (next)
In Teach mode: tap once when the current step is done.

3 ↩ (back)
In Teach mode: leave without saving.

4 −
In Teach mode: move the suction cups one way.

5 +
In Teach mode: move the suction cups the other way.

6 Vacuum sw
Turns suction ON / OFF. Must be ON to pick up film.

7 **Count**
Adds 1 each time a film is placed. Hold 2 sec to reset to 0.

8 **Test sw**
In Teach mode: turn ON, then press START once to watch the taught moves.

9 **M1 – M6 recipes**
6 saved sets of pick-up and drop positions. Hold one 2 sec to choose it.

Teach new pick-up and drop positions



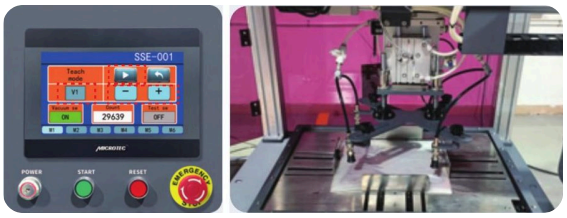
1. Light must be yellow

Green (Auto)? Press **EMERGENCY STOP**, then twist it to release.



2. Choose where to save

Hold **M1**–**M6** for 2 sec.



3. Move over the film tray

Tap ▶. V1 flashes. Use **−** **+** to move the cups over the film.



4. Pick up a film

Tap ▶. The cups go down and pick up a film.



5. Move over the platen

V1 flashes. Use **−** **+** to move to where the film should be laid down.



6. Release the film

Tap **▶**. The film is released.



7. Set the waiting position

V1 flashes. Use **−** **+** to move to the standby spot.



8. Save

Tap **▶**, then **Save**. (**X** = leave without saving.)

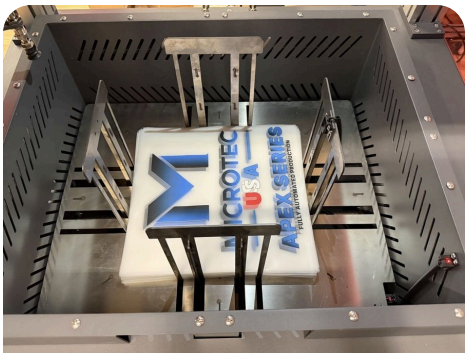
Check before running: in Teach mode, turn **Test sw** ON and press **START** once. The machine plays back the taught moves so you can see they are right.

⚠ Other settings on this machine are for service technicians only. If something needs to be changed there, contact MicroTec support.

Quick reference

I WANT TO…	DO THIS
Use a saved recipe	Hold **M1**–**M6** 2 sec
Start automatic running	Green **START** button
Go on after refilling film	Red **RESET** button
Reset the counter	Hold **Count** 2 sec

4 Run automatic feeding



1. Stack DTF film in the tray

Keep the stack neat and inside the guides. The machine will not start with an empty tray.



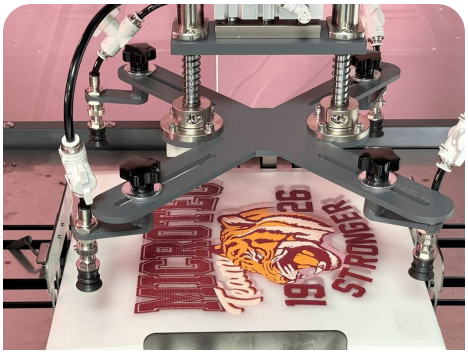
2. Hold your recipe M1–M6 for 2 seconds

Pick the one you taught for this film and press.



3. Press the green START button

The screen shows AUTO, the tray rises and the light turns green.







4. It feeds film by itself

Each time the heat press asks for film, the cups pick up one sheet and lay it on the platen. The counter adds 1.

5. Out of film? A message shows

"The material has used up!" The tray goes down by itself.

6. Refill, then press RESET

Wait until the tray is all the way down. Add film, then press the red RESET button. The tray rises and automatic running goes on.

Fine-tuning: if one corner of the film is not picked up well, each suction cup has its own quick-adjust nut and vacuum switch on the cup head.

5 If something is wrong

"Servo alarm! Please check the fault and reset!"

1. Turn the power off.
2. Look for anything jammed or blocking the arm.
3. Turn the power back on. Still there? Call us.

"Cylinder alarm! Please check the fault and reset!"

1. Check that the air is connected and the compressor is on.
2. Check the air pressure on your compressor.
3. Still there? Call us — a sensor may need adjusting.

Film is not picked up

1. Check that Vacuum sw on the screen is ON.
2. Check the small vacuum switch on each cup.
3. Check the air supply.

Film lands in the wrong place

1. Check that the right recipe M1–M6 is chosen.
2. Teach the positions again (Control panel).

Won't start in Auto

1. Release the EMERGENCY STOP button.
2. Put film in the tray.
3. Press the green START button.

Won't turn on

1. Check the 220V supply and the main breaker.
2. Turn the POWER switch on.
3. Still nothing? Call us.

Specifications

	X-Feed
Works with	APEX X4 / X6 / X8
Power	220V single-phase · 2 kW · 9 A · 60 Hz
Air supply	58 psi (4 bar) · 4.2 CFM
Controller	PLC (MX310-32 + TK8072IP)
Operation	Fully automatic (pneumatic)
Output	Up to 680 / hour
Size (width × height)	1642 × 1560 mm
Net weight	473 lb
Working room	32–104°F · <80% RH

Still stuck? Call us.

Phone

(714) 261-9498

Mon–Fri · 7:30 am – 5:00 pm Pacific

Email

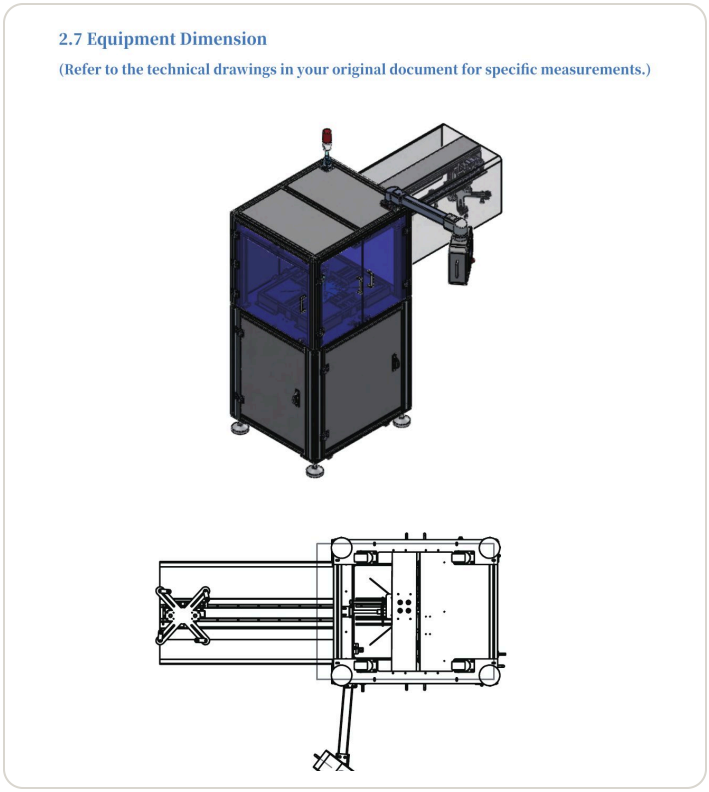
sales@microtecusa.com

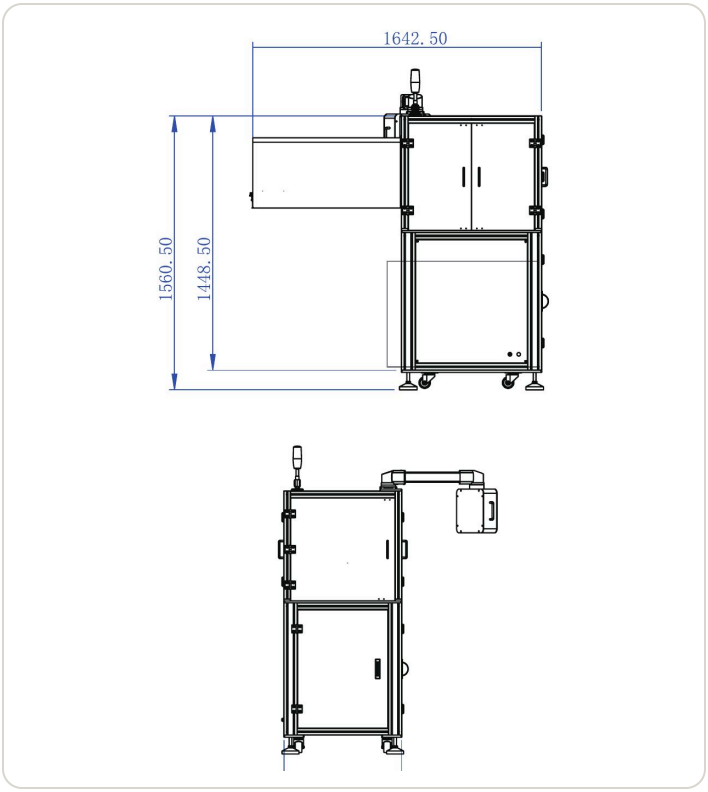
Free lifetime tech support

Dimensions & diagrams

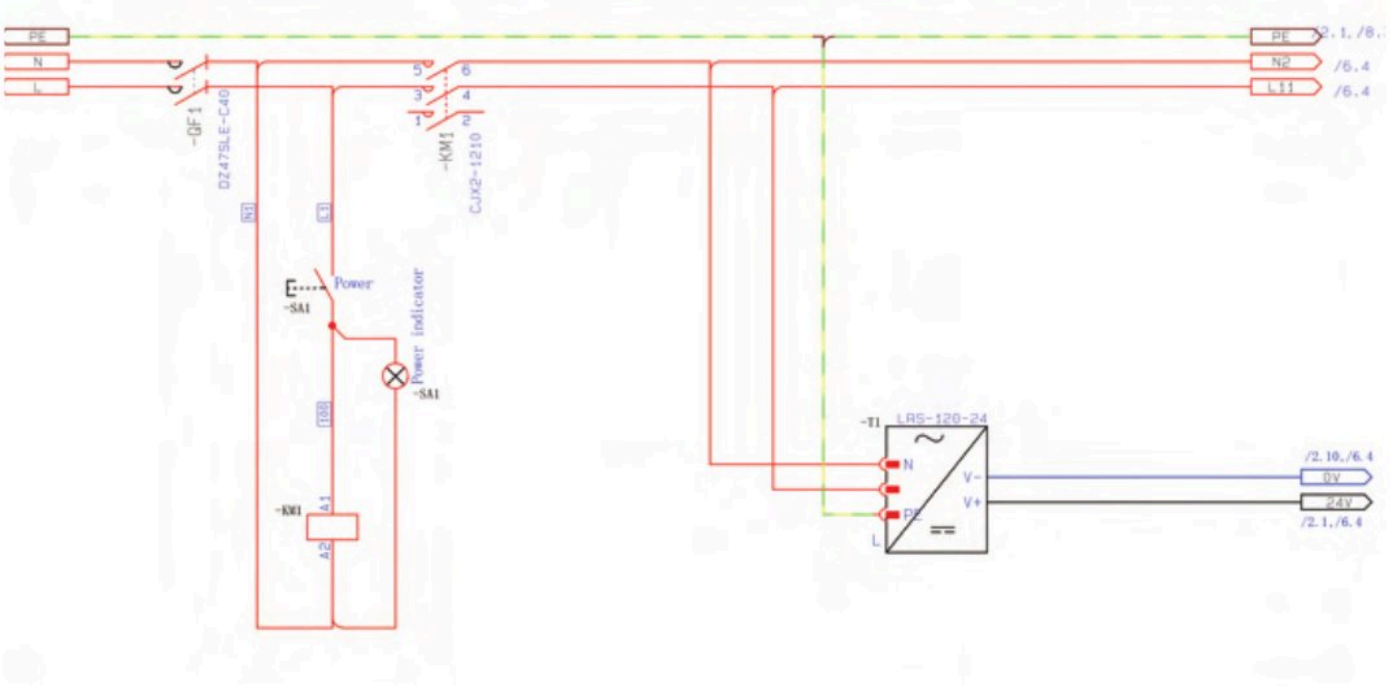
For service technicians. **Unplug the machine** and **disconnect the air** before opening any cover.

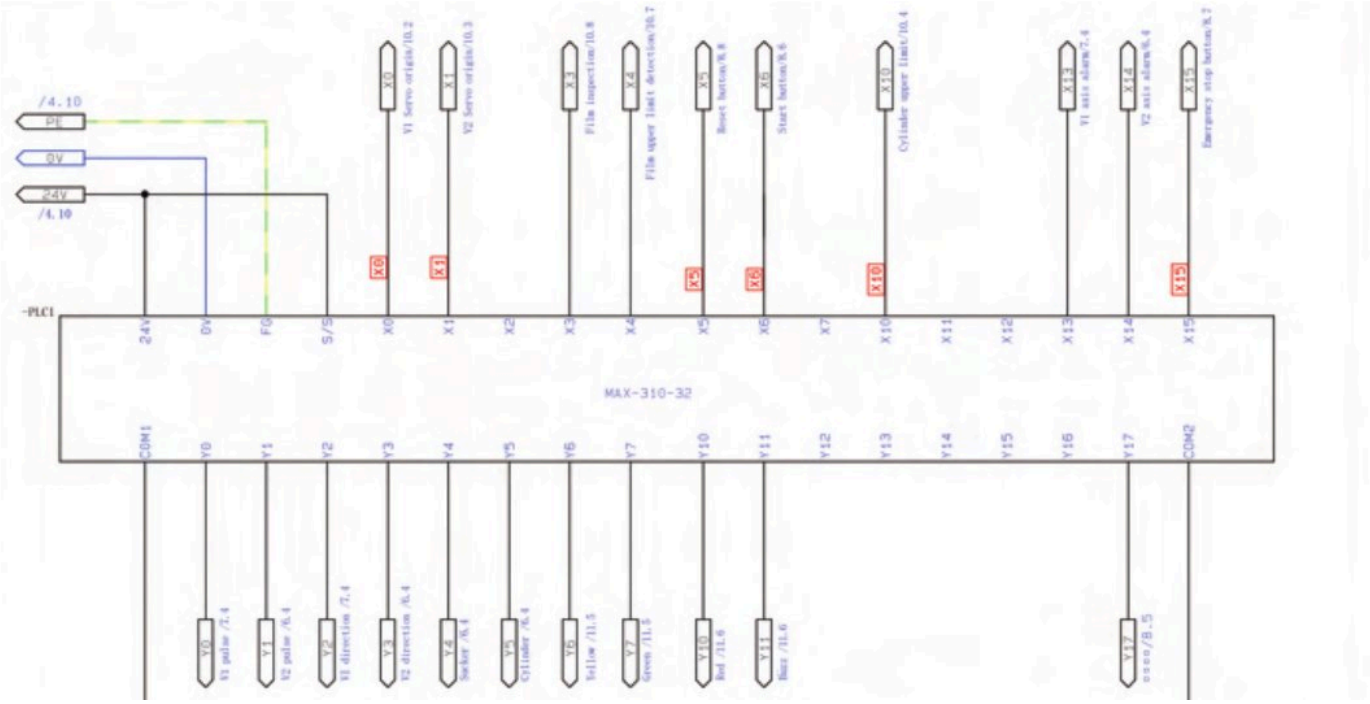
Dimensions (mm)

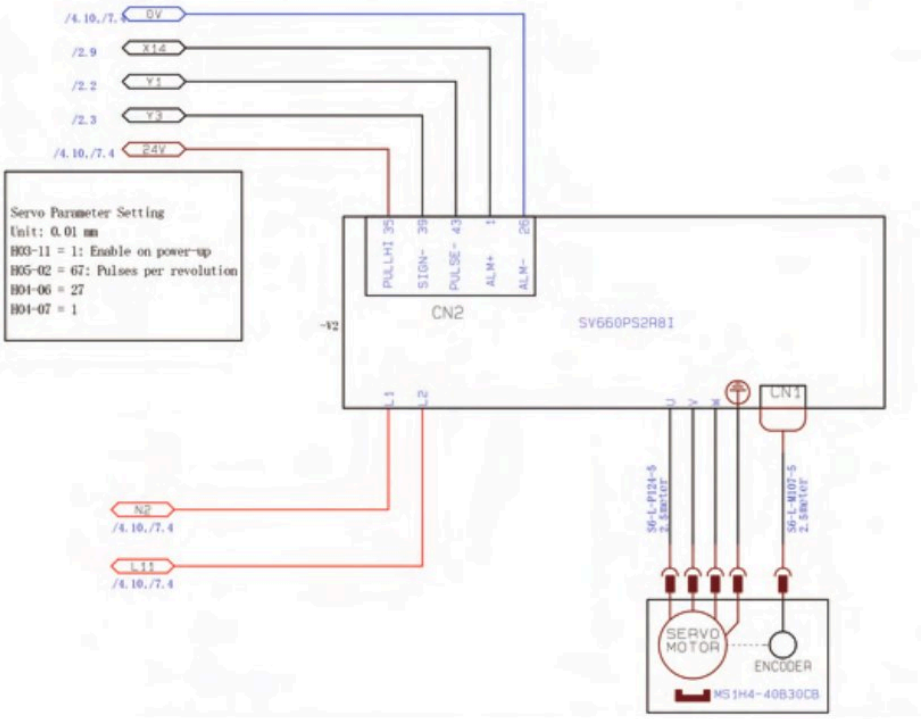


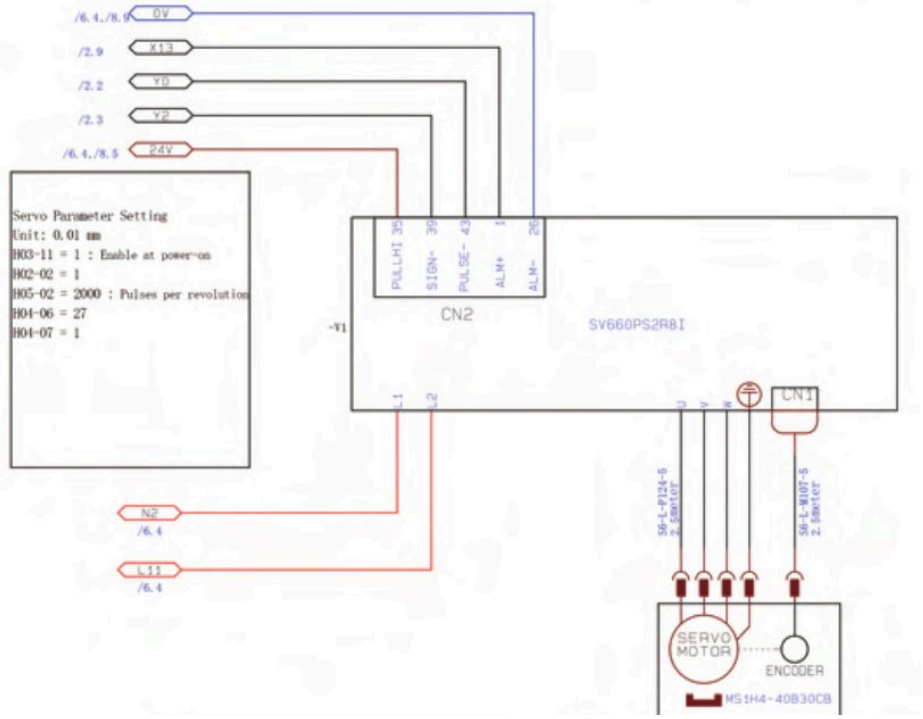


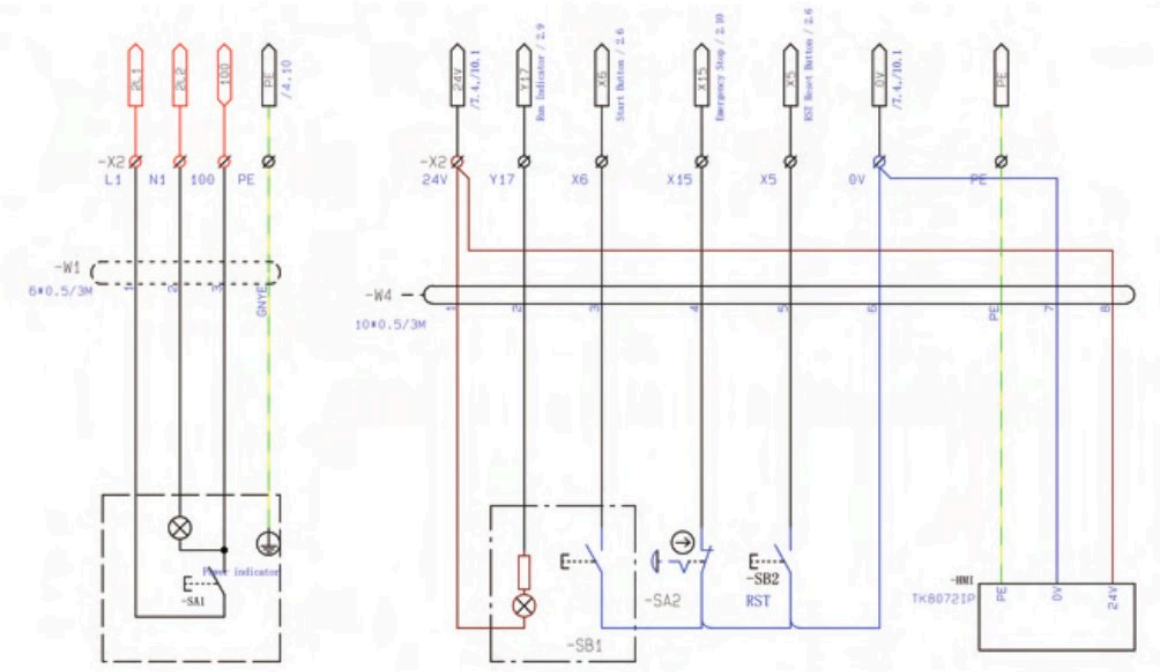
Wiring diagram

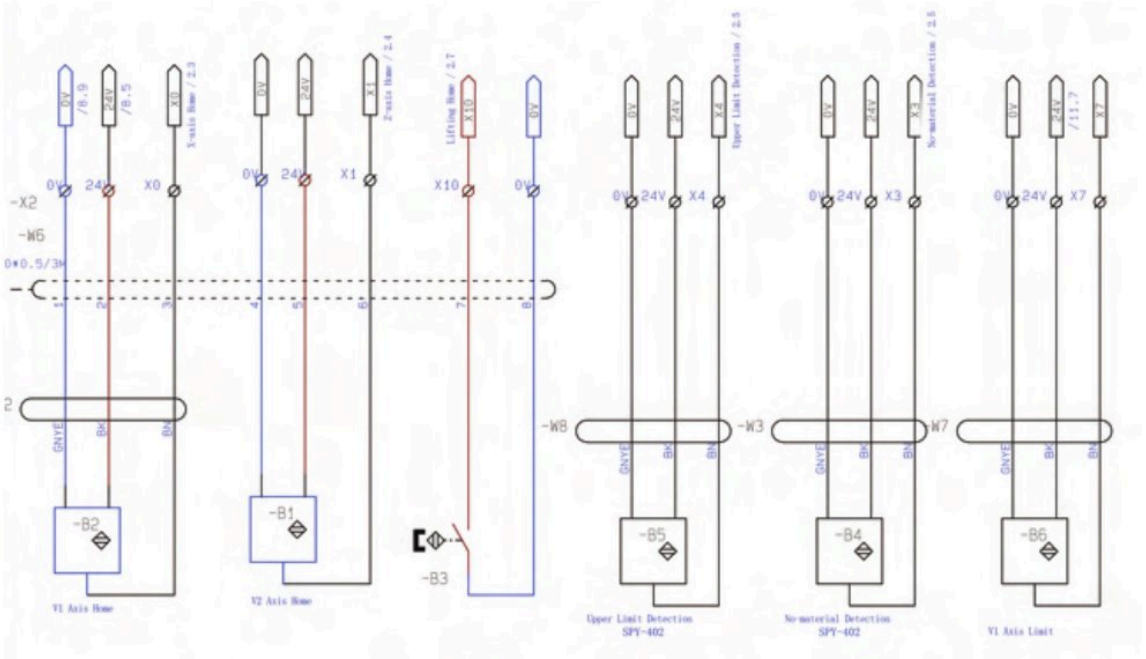


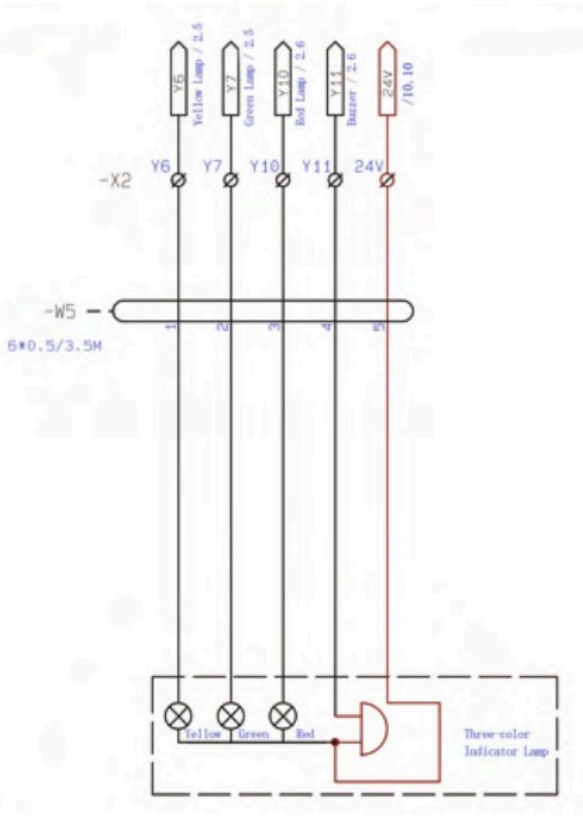


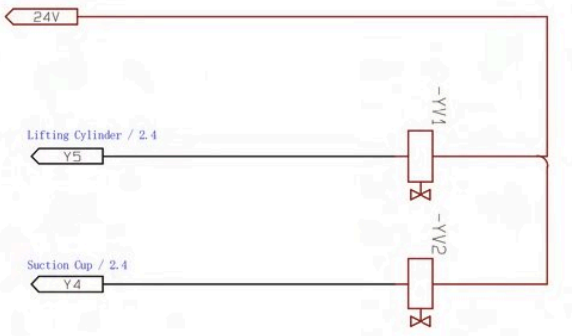

/4.10,/7.
0V
/2.9
X14
/2.2
Y1
/2.3
Y3
/4.10,/7.4
24V
Servo Parameter Setting
Unit: 0.01 mm
H03-11 = 1: Enable on power-up
H05-02 = 67: Pulses per revolution
H04-06 = 27
H04-07 = 1
PULLHI 35
SIGN- 39
PULSE- 43
1
ALM+
26
ALM-
CN2
-V2
SV660PS2R8I
L1
L2
U
V
W
CN1
S6-L-PI24-5
2.5meter
S6-L-WI07-5
2.5meter
N2
/4.10,/7.4
L11
/4.10,/7.4
SERVO
MOTOR
ENCODER
MS1H4-40B30CB


/6.4,/8.
0V
/2.9
X13
/2.2
Y0
/2.3
Y2
/6.4,/8.5
24V
Servo Parameter Setting
Unit: 0.01 mm
H03-11 = 1 : Enable at power-on
H02-02 = 1
H05-02 = 2000 : Pulses per revolution
H04-06 = 27
H04-07 = 1
PULLHI 35
SIGN- 39
PULSE- 43
1
ALM+
26
ALM-
CN2
-V1
SV660PS2R8I
L1
L2
U
V
W
CN1
S6-L-PI24-5
2.5meter
S6-L-WI07-5
2.5meter
N2
/6.4
L11
/6.4
SERVO
MOTOR
ENCODER
MS1H4-40B30CB


-X2
L1
N1
100
PE
-W1
6*0.5/3M
-SA1
-X2
24V
Y17
X6
X15
X5
0V
PE
-W4
10*0.5/3M
-SA2
-SB2
RST
-SB1
-HMI
TK8072IP
PE
0V
24V


-X2
-W6
0*0.5/3M
X0
X1
X10
-B2
-B1
-B3
-W8
-W3
-W7
-B5
-B4
-B6
Y1 Axis Home
Y2 Axis Home
Upper Limit Detection
SPY-402
No-material Detection
SPY-402
Y1 Axis Limit


Y5
Yellow Lamp / 2.5
Y7
Green Lamp / 2.5
Y10
Red Lamp / 2.6
Y11
Buzzer / 2.6
24V
/10.10
Y6
Y7
Y10
Y11
24V
-X2
-W5
6*0.5/3.5M
1
2
3
4
5
Yellow
Green
Red
Three-color
Indicator Lamp


24V
Lifting Cylinder / 2.4
Y5
-YV1
Suction Cup / 2.4
Y4
-YV2

Air diagram

