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WARNING

To take more advantage of your printer, recommended to study the contents of this leaflet carefully

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1 Preface

Characteristics of Printer Model PP-135-S

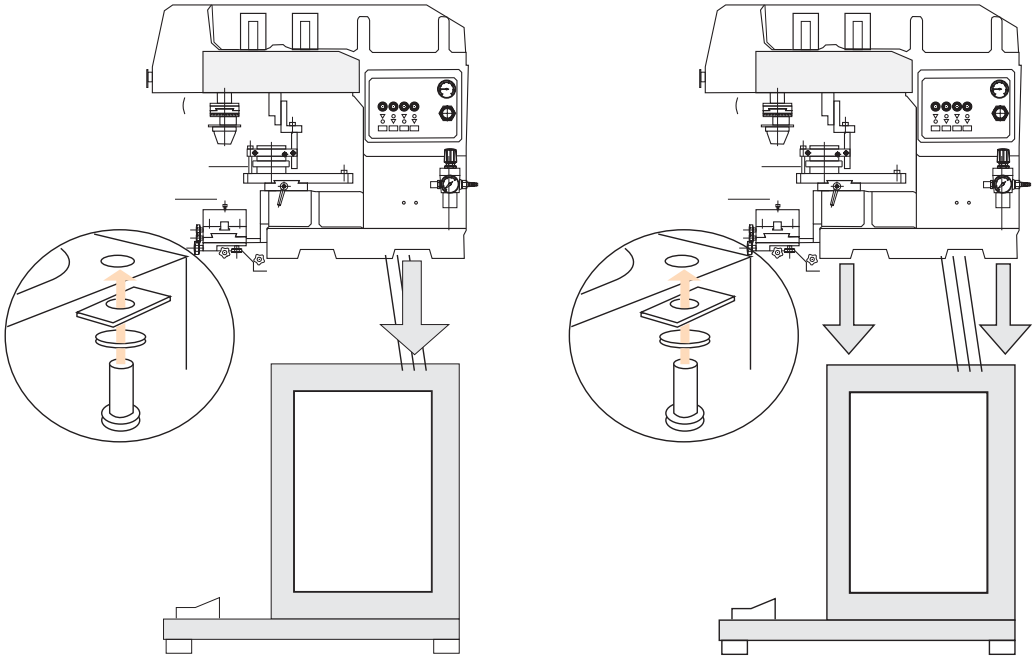
1. To get the best quality result, all the moulding process is done by using aluminium mold which has light weight.
2. Having the best imported pneumatic system (connectors solenoid valves- cylinders etc...) for more durability & stability
3. The horizontal & vertical moving bars are rigid chrome coated .
4. Capable to install both close & open ink cup or each system separately .
5. Equipped with electric board of micro controller of soft ware and easy operation and reliable hard ware for common noises .
6. The electric board has ability for installation of extra parts such as shuttle and cup on the LCD .

Note:

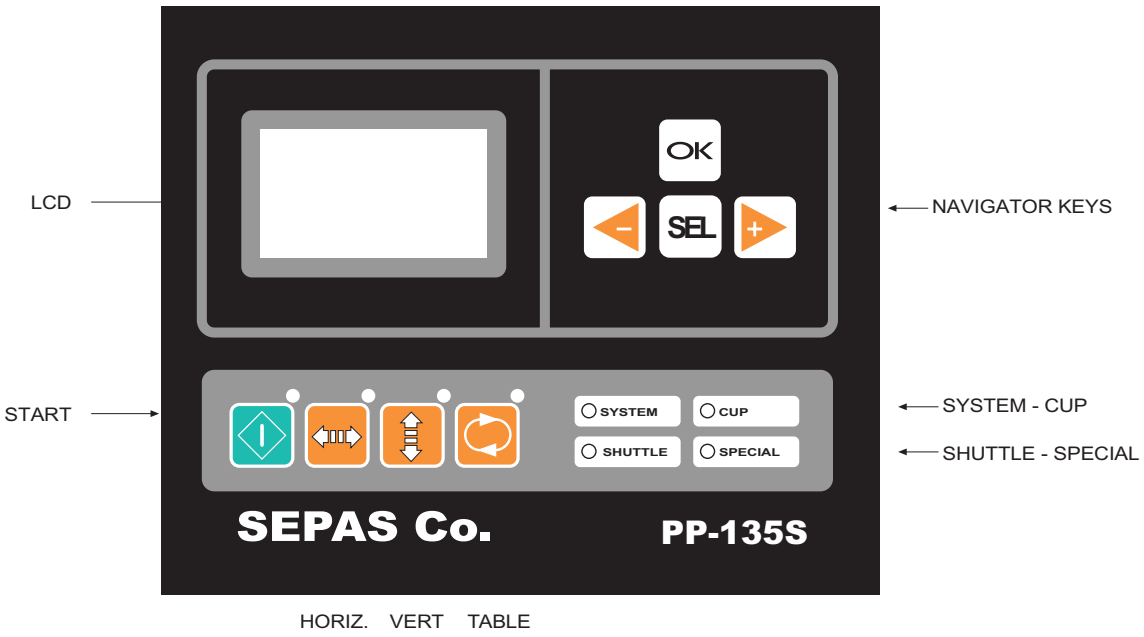
a) If your working place is located in the area with periodic current , it is recommended to use a voltage stabilizer
b) Connect your printer to earth system or to ground or to cold water pipe
c) Do not keep printer near to three-phase unit or noise maker .
d) compressor should be kept more than 5 meters away from printer.
e) Use separate socket for compressor and printer.
f) Try to discharge the water stored in the compressor weekly.
g) Single color printing with close ink cup or horizontal cup system and also two color printing with close & open ink cup is available
h) Two color printing needs a shuttle.
i) Round printing needs a horizontal cup & shuttle.
j) Following languages are available : English - Persian - Arabic - Turkish - Russian.

2 MECHANICAL INSTALLATION

Please put the main body over its stand and fix them by 4 pcs. bolt no. M-12



3 OPERATOR'S PANEL



Operator's panel includes the following parts:

1. **LCD**
2. **Navigators** are for: changing parameters and operation type
3. to start or end automatic cycle
4. Horiz /manual state for horizontal movement of jack

5  Vert/manual state for horizontal movement of jack

6  Table/manual state for shuttle or conveyor movement

7 **System:** shows the errors of horizontal or vertical micro-switches or the hard ware operations.

8 **Shuttle:** shows errors of shuttle / right or left micro-switches

9 **Cup:** shows errors of cup table / right or left micro-switches

10 **Special:** for special cases and operations

4 INSTALLATION

Each time you turn on your system it will be settled in Set Up position and you can see the yellow LED of start key with flashing light on your display .

Lcd

Sepas Co.
PP135S

By pressing  you can enter to the main page. The vertical Jack is up while the horizontal Jack is located at the back side .

Now if your printer is equipped with cup system, first your vertical jack is directed upside while the horizontal jack starts moving forward. Then cup moves left side or stops at left side .

In this case the display shows the following messages

If your printer has shuttle or cup both words will be registered otherwise only word of simple will be registered .

The second message is counter or the number which shows the number of cycle .

Lcd

Flat
counter:5800

By pressing  you enter to the main page

1 Mono cycle print

By each time press-pedal, one cycle of print starts and at the end of cycle the system stops .

2 Manual position

If  being pressed at the same time with the start key, one can control and test the horizontal or vertical moving of shuttle automatically otherwise we can control and test each key manually.

3 Automatic

By pressing the start key one can operate in two ways:

- By repressing the start key you will have a non-step cycle . It only stops at the end of cycle.
- In automatic position one can stop cycle by each time pressing pedal and by repressing, cycle recontinues .

Note: By each time pressing pedal following keys will be registered on LCD : Press – Foot Switch – to continue

Lcd

Press Foot Switch to continue

5 PARAMETER'S ADJUSTMENT

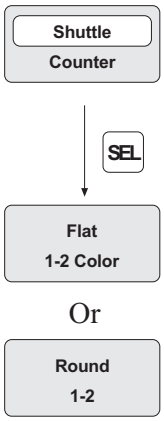
This printer has several parameters to make it more effective for different operations.

To change parameters please use the following navigators :

SEL − + OK

By pressing SEL you enter to menu

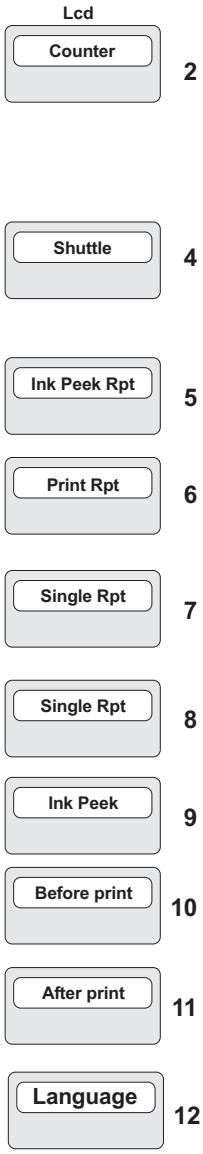
On first page you can see the print type , number of colors and shuttle stations for which we can use − + keys.



- **For simple print type:** only single color system
- **For shuttle print type:** two color & round printing is available
- **For shuttle and cup print type:** only round printing is available

For cup print type: only single color printing is available

By two times press SEL you can re-enter to parameter page. Now if you use − + following parameters appear separately .



1 **Total Num:** printing times in automatic cycle which will return to zero when reaching to the adjusted number.

2 **Counter :** indicates printing times already finished .

3 **Control Mode :** no need to use it

4 **Shuttle:** in (0) position - shuttle is inactive
In (1) position - shuttle is active

5 **Ink Peek Rpt:** number of inking

6 **Print Rpt:** printing times

7 **Single Rpt:** number of cycle

8 **Before Ink:** stop time before inking

9 **Ink Peek:** pad stop time when inking

10 **Before print:** pad stop time (front or up) before printing

11 **After print:** pad stop time (front or up) after printing

12 **Language:** Available languages: English - Persian - Arabic - Turkish and Russian

- In normal cases when pressing OK a new page will be appeared including four lines as detailed bellow :

First Line: print type

Second Line: print record

Third Line: Parameters record

Forth Line: Remaining parameters

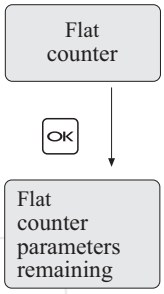
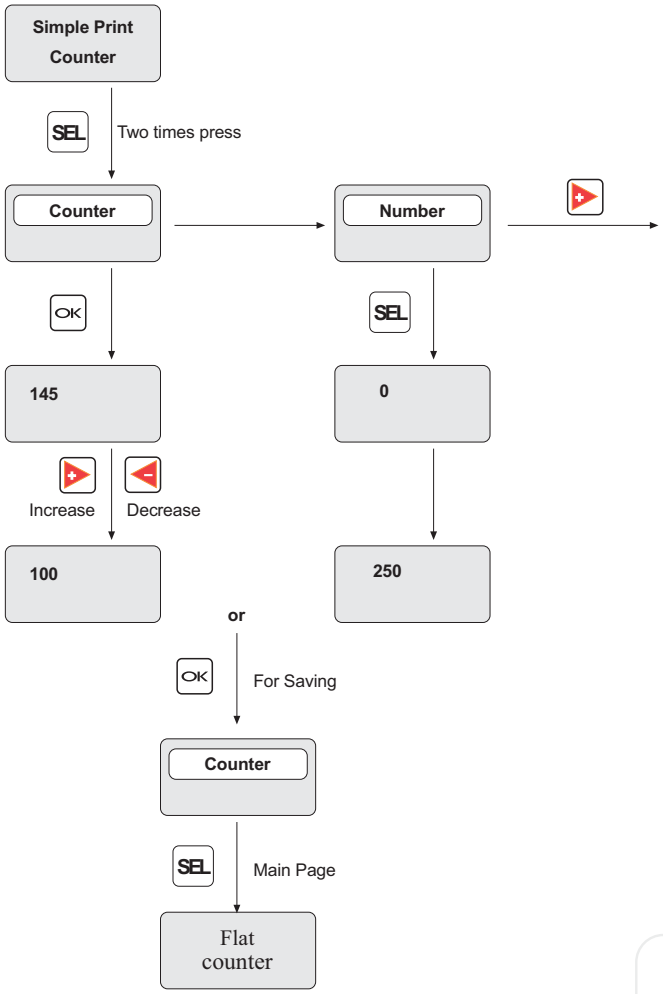


Figure A

Remarks

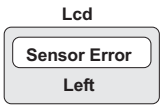
Language:
(0) English Language **(1)** Persian Languag **(2)** Arabic Languag
(3) Turkish Languag **(4)** Russian Languag

By two times pressing SEL first parameter reappears
By pressing OK parameter number appears
▶ and ◀ decrease or increase the parameter numbers
By pressing SEL we return to zero position and for saving the number it is enough to repress OK
By following above procedure, you can adjust all parameters and you can return to the main page by pressing SEL

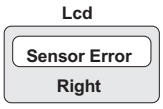


6 ERRORS

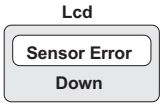
List of error warnings are as detailed bellow :



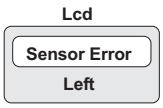
1. **Up/sensor:** Error in both sensor frame



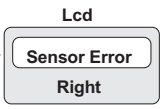
2. **Down/sensor:** Error in down/sensor or both sensor frame



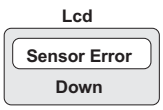
3. **Front /micro switch:** Error in front horizontal Jack/ micro switch



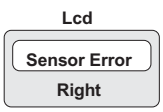
4. **Rear/micro switch:** Error in back / horizontal Jack/ micro switch



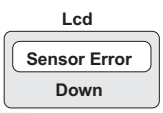
5. **Left cup/micro switch:** Error in left horizontal cup table/ micro switch



6. **Right cup/micro switch:** Error in right horizontal cup table/micro switch



7. **Shuttle / sensor – 1:** Error in back/micro switch or left shuttle

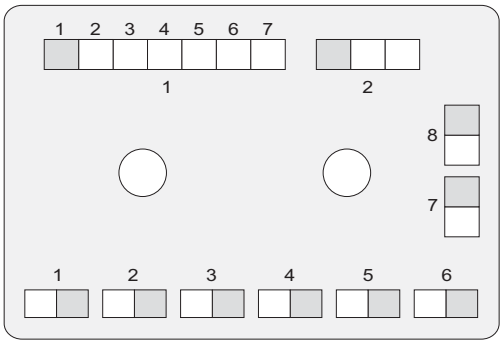


8. **Shuttle / sensor – 2:** Error in front/ micro switch or right shuttle

- **Memory error:**
  In case , the following messages appear on the display screen please contact the manufacturer
  DATA ERROR, COUNT LIMIT , TIME LIMIT

7 SOLENOID VALVE BOARD'S ASPECT & SENSOR BOARD'S ASPECT

Function of solenoid board (output)
In order to mechanize all the connectors between the mother board and the solenoid valves, we use a small board which shows the function of sockets.



- **7 pin socket**
  No.1: Common **No.2:** Down movement-vertical cylinder **No.3:** Up movement-vertical cylinder **No.4:** Front movement-horizontal cylinder **No.5:** Backward movement - horizontal cylinder **No.6:** Cup movement to right **No.7:** Cup movement to left

- **3 pin socket** **N0.1:** Common **No.2:** Right micro switch **No. 3:** Left micro switch

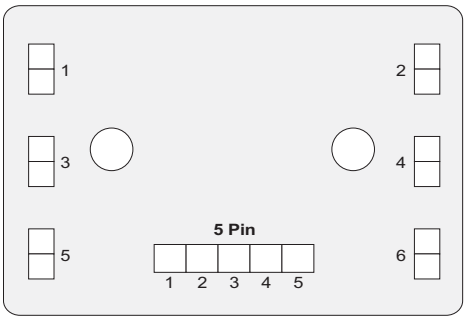
- **2 pin socket** which is connected to the solenoid valves
  No. 1: Down movement - vertical cylinder **No.2:** Up movement - vertical cylinder **No.3:** Front movement - horizontal cylinder

No.4: Backward movement - horizontal cylinder **No.5:** Cup-movement to right **No.6:** Cup movement to left **No.7:** Micro switch settled at right side of cup **No.8:** Micro switch settled at left side of cup

- **The function of sensor's board** (input)

- In order to mechanize all the connectors between the mother board and sensors and micro switches ,we use a small board which shows the function of male and female headers

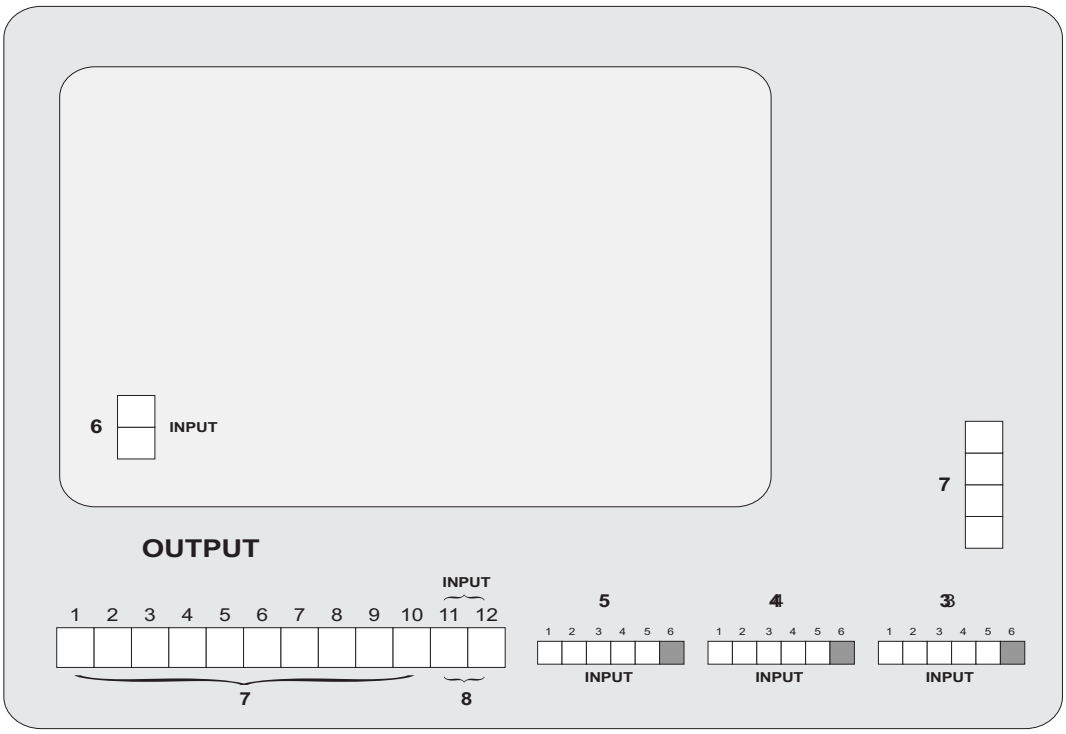
- **5 pin socket**
  No.1: Common **No.2:** Down sensors **No.3:** Up sensors
  No.4: Front micro switch **No.5:** Rear micro switch



- **2 pin socket** between headers
  1. Up sensor → Back sensor frame
  2. Up sensor → Front sensor frame
  3. Down sensor → Back sensor frame
  4. Down sensor → Front sensor frame
  5. Rear micro switch of horizontal moving
  6. Front micro switch of horizontal moving

MOTHER BOARD- INPUT

No. 1: Black wire - adjusted voltage between 9V Dc to 1 1 V Dc
No.2: Unutilizable
No.3: 6 pin socket used for sensor's board
1. Common **2.** Rear micro switch **3.** Front micro switch
4. Up sensors **5.** Down sensors **6.** Empty



No.4: 6 pin socket
1. Common
2. Micro switch at right side of cup
3. Micro switch at left side of cup
4. Micro switch no.2 of shuttle - at front of shuttle or right side of shuttle
5. Micro switch no.l of shuttle - at back of shuttle or left side of shuttle
6. Unutilizable

No.5: 6 pin socket - pedals-recognition of shuttle
1. Common
2. Pedal
3. Recognition of shuttle

OUTPUT

No.6: 10 pin socket - solenoid valves

1- Common → Black
2- Vertical cylinder - down movement → Brown
3 - Vcrtical cylinder - up movement → Red
4 - Horizontal cylinder - front movement → Orange
5 - Horizontal cylinder - rear movement → Yellow

- From 1-5 : connected to solenoid valve

6 - Shuttle ⟶ Green
No. 6: Connected to shuttle's board socket
7 - Empty
8 - Cup movement to right ⟶ Violet
9 - Cup movement to left ⟶ Grey

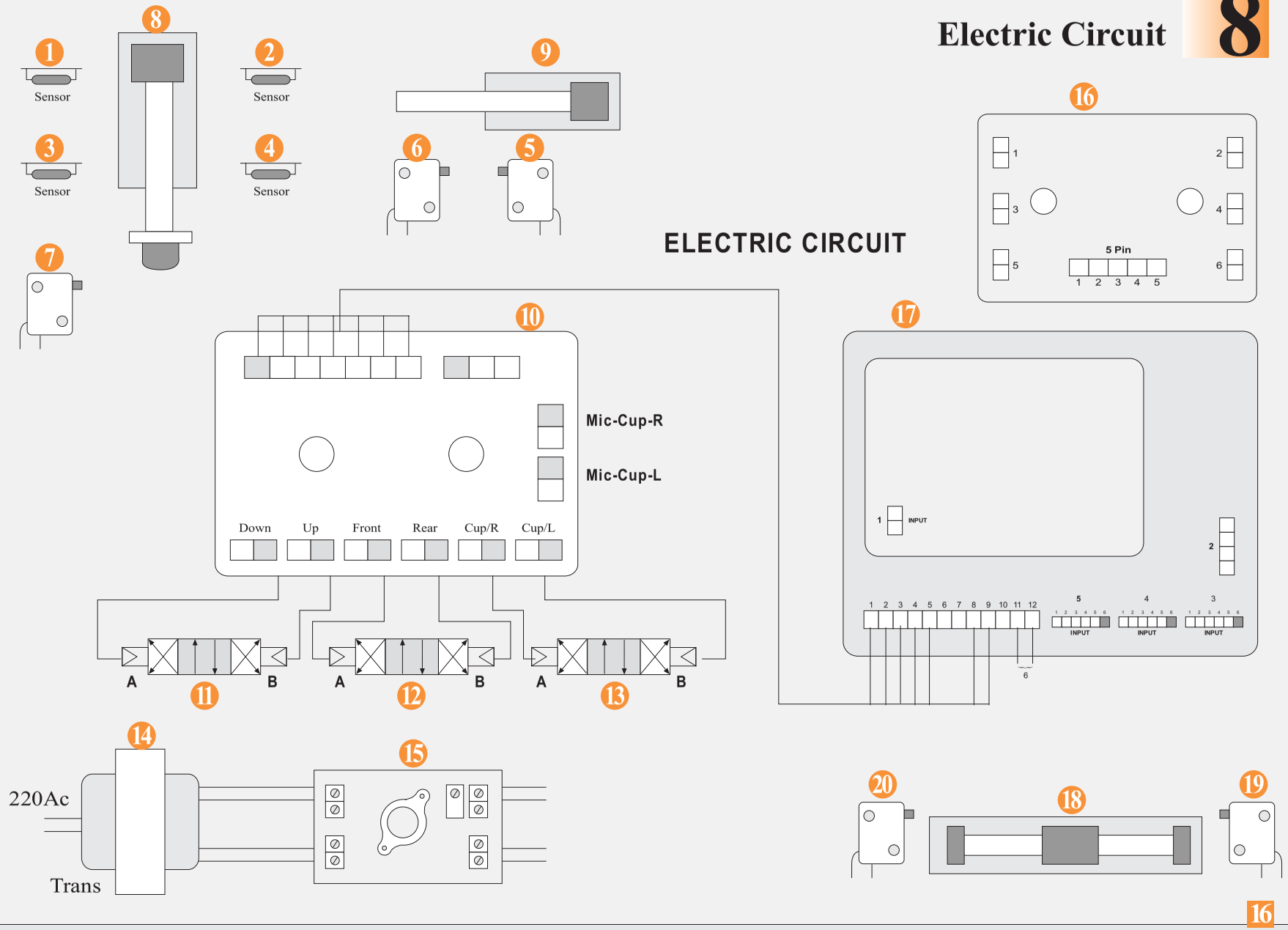
- From 8-9 connected to solenoid valve board

10 - Empty
INPUT: Including: socket nos. 2,3,4,5 and also green socket nos. 1 &6
OUTPUT: Including:10 pin green socket no. 7

- **ELECTRIC CIRCUIT**

Connected to socket no. 1 - mother board
Connected to socket no.6 - mother board

Electric Circuit



More about Electric Circuit

1. Up sensor in rear sensor frame is connected by a wire to socket no.1-sensor board(figure 16)
2. Up sensor in front sensor frame is connected by a wire to socket no.2-sensor board(figure 16)
3. Down sensor in rear sensor frame is connected by a wire to socket no.3-sensor board(figure 16)
4. Down sensor in front sensor frame is connected by a wire to socket no.4 – sensor board(figure 16)
5. Rear micro-switch in horizontal moving is connected by a wire to socket no.5- sensor board(figure 16)
6. Front micro switch in horizontal moving is connected by a wire to socket no.6 –sensor board(figure 16)
7. Pedal micro-switch is connected by a wire to mother board
8. Vertical moving cylinder is manufactured by SMC Co.
9. Horizontal moving cylinder is manufactured by SMC Co.
10. Solenoid valve board is together with a cup
11. 2 bobbin solenoid valve no. 5/2 is connected to vertical cylinder
    - A Bobbin – vertical cylinder – moving down
    - B Bobbin - vertical cylinder - moving up
12. 2 bobbin solenoid valve no. 5/2 is connected to horizontal cylinder
    - A Bobbin – horizontal cylinder – moving front
    - B Bobbin – horizontal cylinder – moving back
13. 2 bobbin solenoid valve no. 5/2 is connected to cup-cylinder
    - A Bobbin – cup – moving right
    - B Bobbin – cup - moving left

14 Transformer- specifications :
50-60 Hz 220V Ac (12V Ac- 24V Ac)

15 Electric filter board for adjusting voltage from 9V Dc to 11V Dc for mother board installation

16 Sensor board is connected to socket no.3 – mother board by a five-series flat wire.

17 Mother board

18 Horizontal cup-cylinder

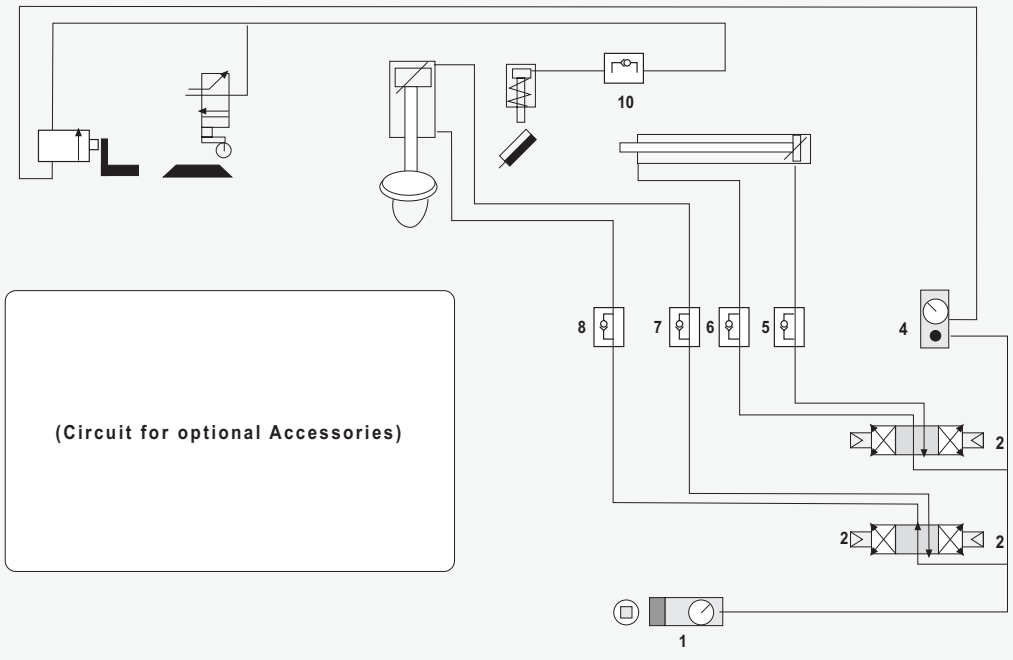
19 Micro-switch of the right side of horizontal cup which is connected to 2 pin socket (Mic-Cup-R)

20 Micro switch of the left side of horizontal cup which is connected to 2 pin socket (Mic-Cup-L)

Note
Item Nos. 20-19-18-13 is unutilized if having no horizontal cup

9 PNEUMATIC CIRCUIT

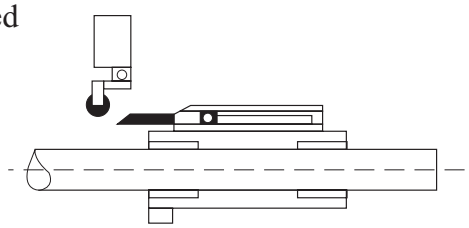
PNEUMATIC



Making length of Doctor Blade

The screw on the Sealed plate is used to adjust doctor blade to back movement, i.e. as much as it is onward, doctor blade separates more back from the cliche surface and vice versa.

Making length must never exceed the plate edge or else otherwise, doctor blade will be damaged by the plate.

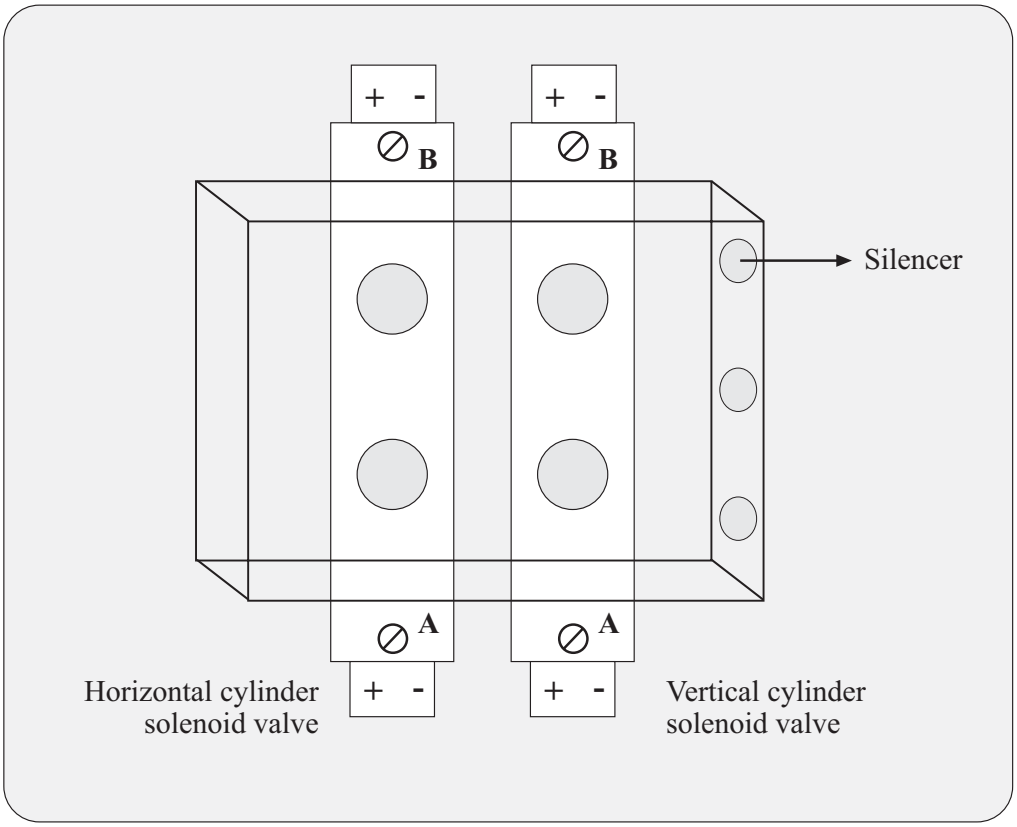


MORE ABOUT PNEUMATIC CIRCUIT

1. Regulator is together with gauge and cut-link valve
2. 5/3 2 bobbin solenoid valve is manufactured by SMC Co.
3. 5/2 2 bobbin solenoid valve is manufactured by SMC Co.
4. Blade regulator for open ink cup system together with gauge
5. Control valve for horizontal jack-rear moving
6. Control valve for horizontal jack-front moving
7. Control valve for vertical jack-up moving
8. Control valve for vertical jack-down moving
9. Horizontal moving cylinder is manufactured by SMC Co.
10. Control valve to adjust blade or doctor blade of open ink cup system
11. Blade or doctor blade cylinder for open ink cup system
12. Vertical moving cylinder is manufactured by SMC Co.
13. Pneumatic micro-switch with roller located at the rear side of the horizontal jack for open ink cup system only
14. Pneumatic micro-switch located at the front side of the horizontal jack for open ink cup system only

Note: Item nos. : 4 -10-11-13-14 are not iustalled in close ink cup system

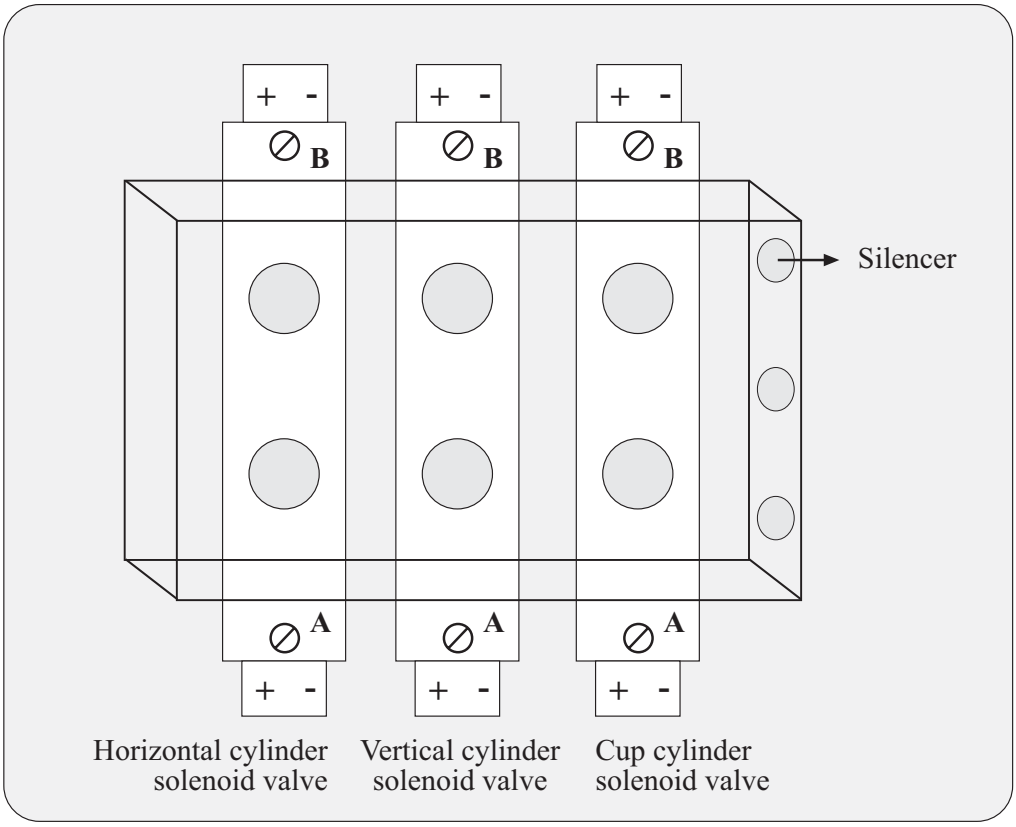
10 SOLENOID VALVE BLOCK ASPECT & THE CONNECTED VALVES



- Solenoid valve - Vertical cylinder
  A Bobbin : to move vertical cylinder - down
  B Bobbin : to move vertical cylinder - up

- Solenoid valve -Horizontal cylinder
  A Bobbin : to move horizontal cylinder-front
  B Bobbin : to move horizontal cylinder - rear

- Solenoid Valve - Cup cylinder
  A Bobbin : to move cup cylinder - right
  B Bobbin : to move cup cylinder - left



11 EASY INSTALLATION
(FROM INK TRAY TO INK CUP)

First step: take the tray and doctor blade set
Second step: fasten the ink cup to printer by 2 bolts firmly
Third step: fix the single color tray on printer
Forth step: place 4 ink cups on the cliché plate

STEP l

STEP 2

STEP 3

STEP 4

Advantages of close ink cup:

- No odour of thinner
- Fixing viscosity
- Save ink for the next printing

12 SPECIFICATION (INK CUP)/ CMIC SYSTEM

Since ink is completely sealed inside the cup :

1. Ink cup is thoroughly clean
2. Long life cliché due to the cup light pressure
3. Quite ideal for automatic system and non-stop printing
4. More than 500000/cycle printability
5. Ink saving up to 80%
6. Operator time saving up to 1 hour /day

Features:

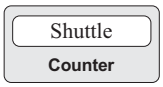
Cliché width	Cliché Length	Print diameter	Cup diameter
100 mm.	250 mm.	85 mm.	90 mm.

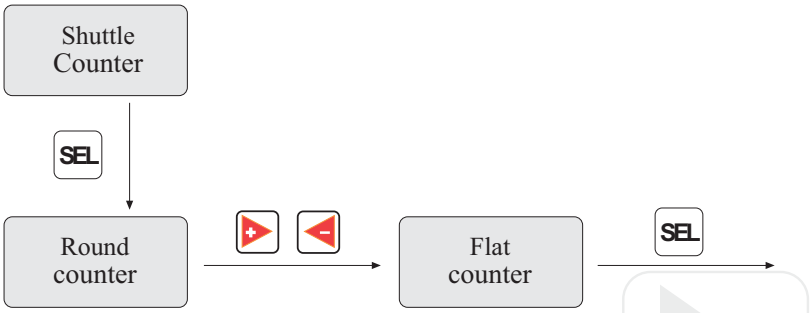
13 THE INTRODUCTION OF SHUTTLE SET

- Shuttle is specially made for two color and round printing which is settled on the cross-shaped table and is connected to the back door of the set by a 9 pin socket and a hose no.6
- It has an intelligent board and will register the accessories on the display.
- Shuttle works in two ways : flat two color and round single color

1

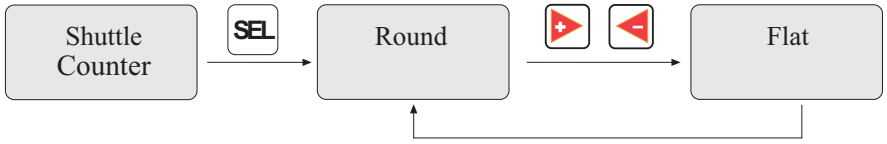
We turn on the set. As shuttle is already connected to printer, it is already registered on the display and you can see the word of shuttle at the top side of display.





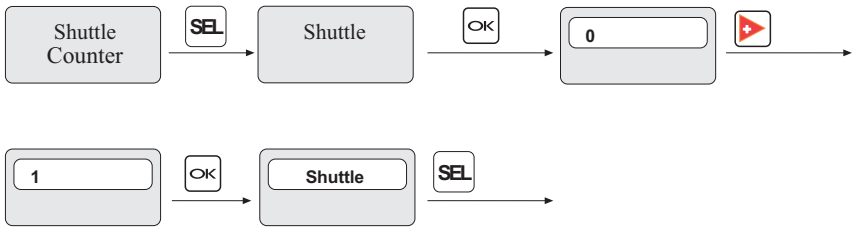
2 We can enter to shuttle menu. by pressing SEL and then we can select flat two color or round single color by pressing + - .

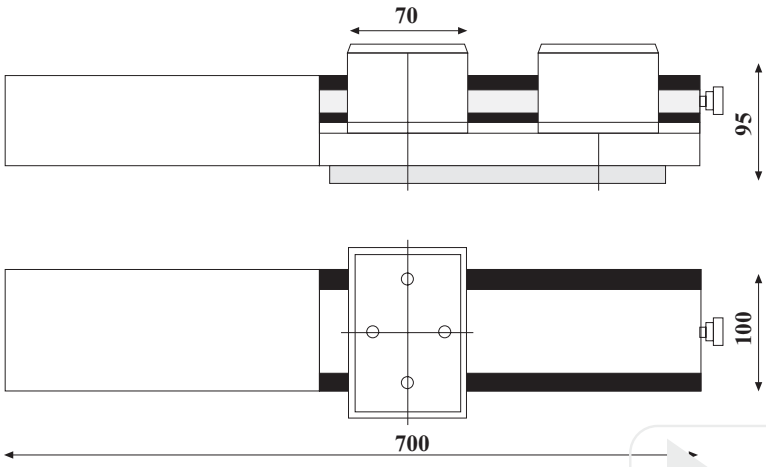
If the "ftat two color" is not possible please follow the following procedure: First keep pressing + and - . the round single color mode 1-2 and the flat single color mode will appear only but fixed



MORE ABOUT DIAGRAMME NO. 3

Press SEL two times until entering to parameters pages. Then register Shuttle by + and - . Then press OK . Now you can choose No.1 Which means active shuttle and finally we can save it by pressing OK and we can return to the main page by pressing SEL .





Max. length of shuttle	210 mm.
Max. print - open system	60*90 mm.
Max. 2 color print speed	1800 /hour
Air consumption pressure	6 bar
Power Supply	24 V Dc
Dimension (L*W*H)	95*100*700
Weight	7 kg.
Max. round printing	200 mm
Max. round printing speed	1500/hour
Max. close system print	Diameter: 85 mm.

14 AN INTRODUCTION TO THE HORIZONTAL CUP

- In order to have a round and flat single color print in maximum possible dimension, we use from the cup which is connected to the both side of your set by a cable and a hose no.6.

- You can see the registered word of cup on the LCD

1- When you turn on your set, first :

2- the vertical jack is up

3- the horizontal jack is front

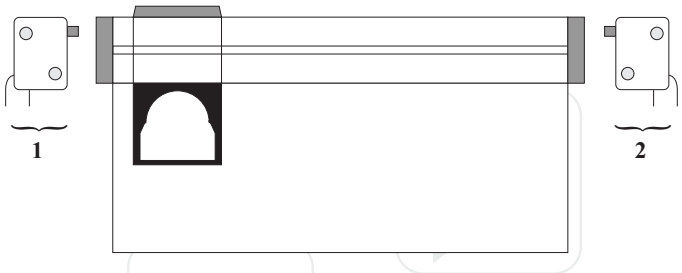
4- and the cup stops at left

5- If the horizontal cup table and shuttle is both connected to your set, your display will only show round printing . Please note, two color printing will be impossible if having horizontal cup table.

6- Micro-switch no.1 is connected to the left cup socket by a cable.

7- Micro-switch no.2 is connected to the right cup socket by a cable.

8- Please note, from left side cylinder, you can see a hose no.6 (length is 60 cm.) which is connected to left coupling and the same to right coupling.



SEPAS CO. (ALETAHA Brs.)

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