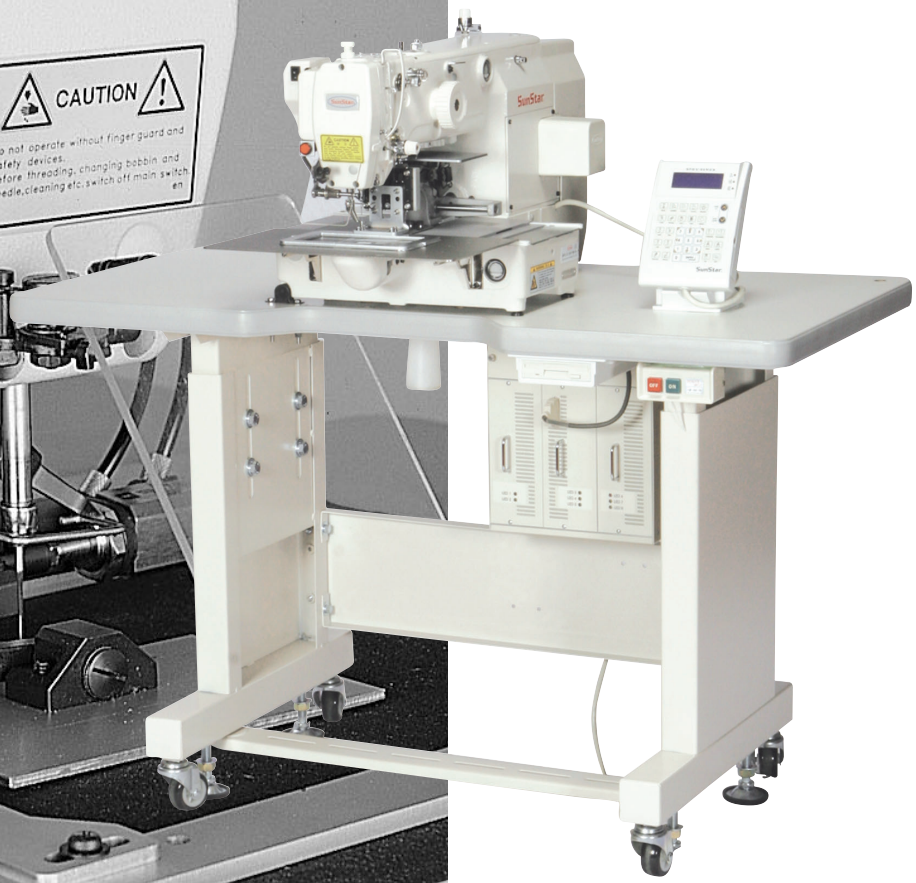
SunStar®

# MANUAL

## INVERTING CLAMP DEVICES

Electronically Controlled
Pattern Sewing Machine

## SPS/E-1507 Series

1) FOR AT MOST USE WITH EASINESS, PLEASE READ THIS MANUAL BEFORE USING THE MACHINE.
2) KEEP THIS MANUAL IN SAFE PLACE FOR REFERENCE WHEN THE MACHINE BREAKS DOWN.

SUNSTAR MACHINERY CO., LTD.

MME-070109


1. **Thank you for purchasing our product. Based on the rich expertise and experience accumulated in industrial sewing machine production, SUNSTAR will manufacture industrial sewing machines, which deliver more diverse functions, high performance, powerful operation, enhanced durability, and more sophisticated design to meet a number of user's needs.**
2. **Please read this user's manual thoroughly before using the machine. Make sure to properly use the machine to enjoy its full performance.**
3. **The specifications of the machine are subject to change, aimed to enhance product performance, without prior notice.**
4. **This product is designed, manufactured, and sold as an industrial sewing machine. It should not be used for other than industrial purpose.**

SUNSTAR MACHINERY CO., LTD.

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# 1

# Notice Before Using

1) Before inputting air pressure by air pressure control devices, check if a needle is not attached.

| | |
|---|---|
| ⚠ Caution | **If the up-feed plate and reversal feeding frame ascend simultaneously with air pressure input so that a needle is put over the reversal feeding frame, the needle can be broken** |

2) Before reading patterns, check the pattern number once more.

| | |
|---|---|
| ⚠ Caution | **If you use read patterns, incorretly a needle can be broken when the reversal feeding frame ascend during sewing or after finishing sewing.** |

3) Using presser foot is not available for normal inverting working. In case of using the presser foot, you should be careful since the sewing range around reversal crank differs from the normal sewing range.

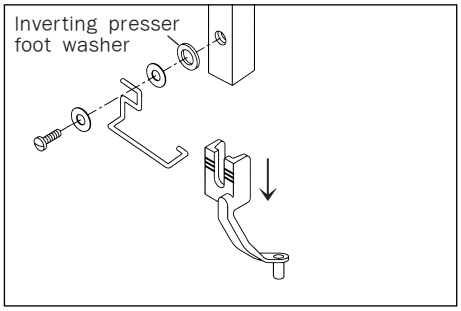
# 2

# Inverting Clamp Devices of SPS/E-1507 Series

## 1. Installing the Inverting Clamp Devices

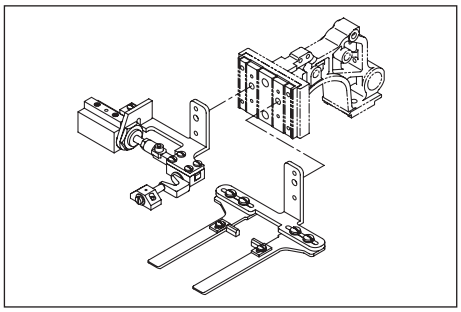
1) Remove the up-feed plate and feed plate cramp attached to feed bracket.

2) Remove the presser foot and insert the Inverting presser foot washer on that spot, then fasten a fixing screw.



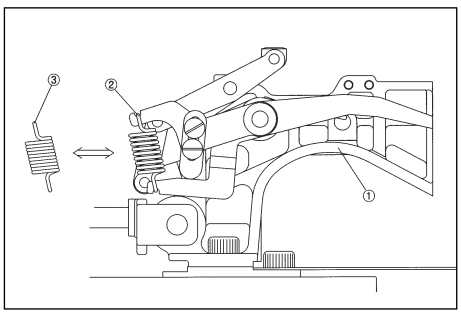

[ Fig. 1 ]

3) Install the Inverting clamp devices as seen in the figure 2.



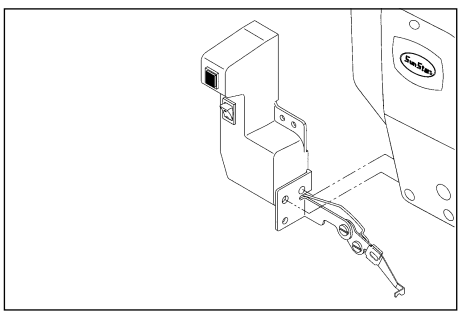
[ Fig. 2 ]

4) If the machine is an electronic type, replace the lift lever extension spring② located on the left side of the feed bracket① with the lift lever extension spring for turnover device③.




[ Fig. 3 ]

5) Attach the wiper for the inverting clamp devices.



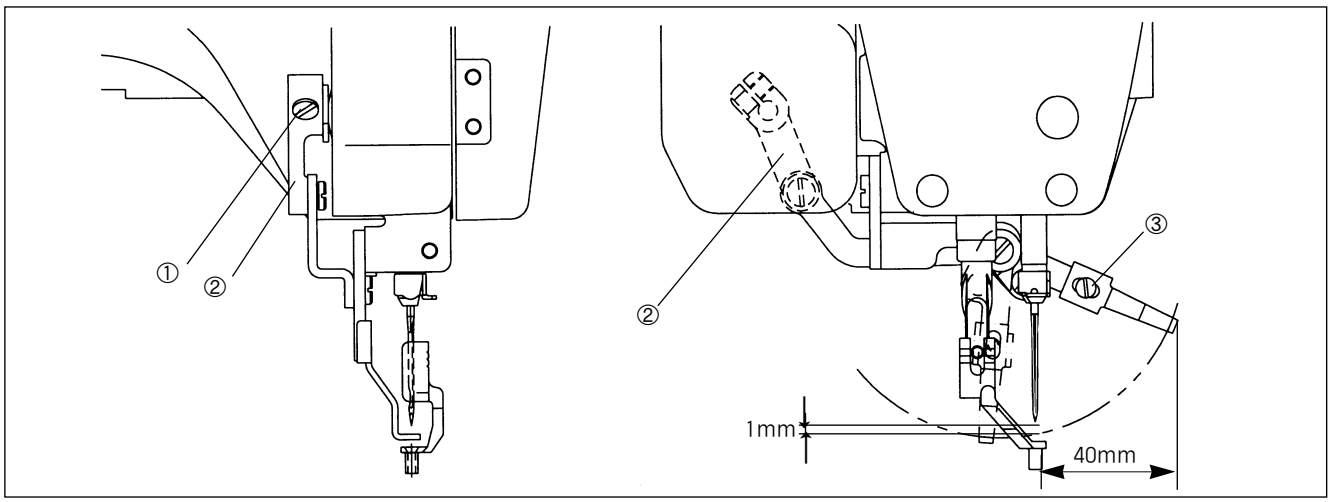
[ Fig. 4 ]

## 2. Adjusting the Wiper Parts

1) Unfasten the crank fixing screw① when a needle is stopped upward.
2) Adjust the wiper crank ② for wiper and needle to be apart from about 40mm.
3) Fasten the wiper crank fixing screw ①.
4) Unfasten the wiper fixing screw ③ and adjust it for wiper tail and needle tip to be apart from about 1mm, then fasten the wiper fixing screw ③.

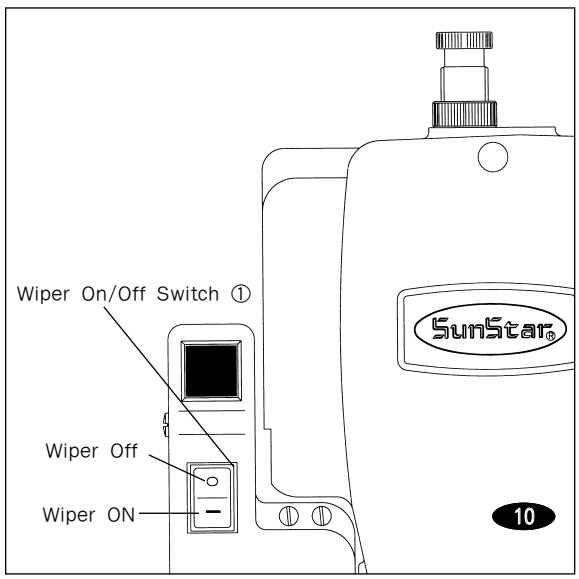
**Caution**

**If a position of wiper is not proper, the wiper can be interfered with needle or inverting clamp devices during operating, therefore, precise operation can not be a chieved.**




[ Fig. 5 ]

5) For using the wiper, press the wiper operation switch — ① and for not using it, press the wiper operation switch ○①.



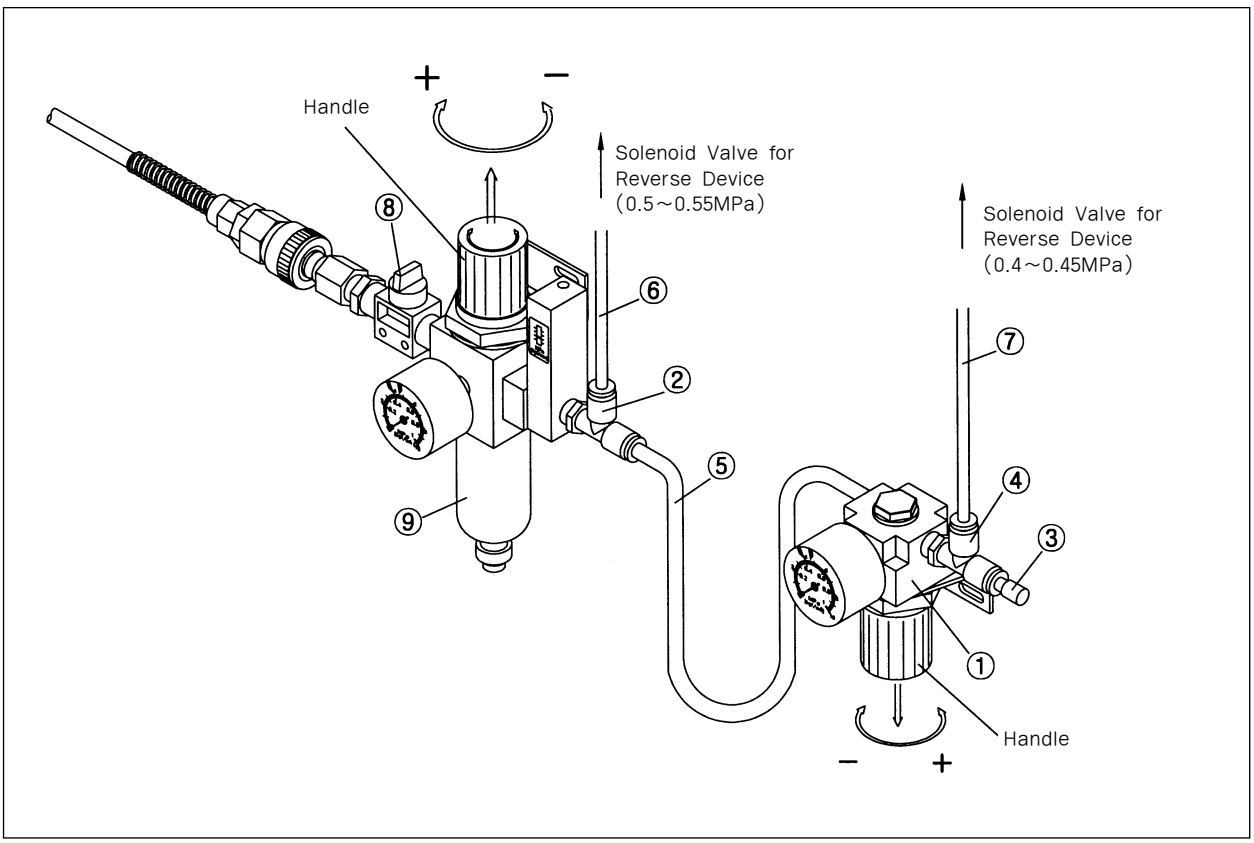

[ Fig. 6 ]

## 3. Installation and Adjustment of Pneumatic Control Parts

| Caution | **Make sure that the power is turned off during parts installation and adjustment in order to prevent safety accidents.** |
|---|---|

A. For pneumatic type

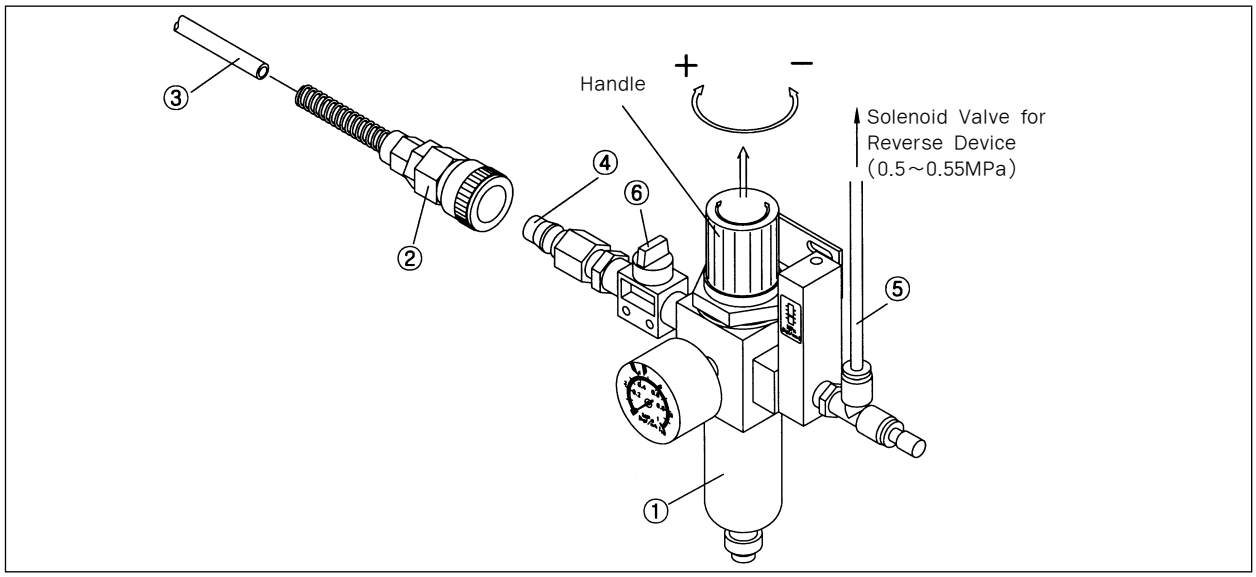
1) Attach the pressure adjuster① to the rear side of the table leg using the screw.
2) Remove the plug③ attached to T②, and insert it into T④. Connect the air hose⑤ as in the figure below.
3) Connect the air hoses⑥,⑦ to the corresponding solenoid entrances.
4) Open the finger valve⑧ and pass the air to move in.
5) Pull the pressure adjuster⑨ handle for the reverse device in the arrow direction. When it is turned in the (+) direction, the pressure increases. When it is turned in the (-) direction, the pressure decreases. Set the air pressure at the appropriate level of 0.5~0.55MPa (5~5.5Kgf/㎠).
6) Pull the pressure adjuster① handle for upper feed in the arrow direction. When it is turned in the (+) direction, the pressure increases. When it is turned in the (-) direction, the pressure decreases. Set the air pressure at the appropriate level of 0.4~0.45MPa (4~4.5Kfg/㎠).




[ Fig. 7 ]

B. For electronic type

1) Attach the pressure adjuster② to the rear side of the table leg using the screw.
2) Connect the air hose③ to the quick joint socket②.
3) Assemble the quick joint socket② and the quick joint plug④.
4) Connect the air hose⑤ as in the figure and connect it to the reverse device solenoid entrance.
5) Open the finger valve⑥ and pass the air to move in.
6) Pull the pressure adjuster① handle for the reverse device in the arrow direction. When it is turned in the (+) direction, the pressure increases. When it is turned in the (-) direction, the pressure decreases. Adjust the air pressure at the appropriate level of 0.5~0.55MPa (5~5.5Kgf/㎠).




[ Fig. 8 ]

**Caution**

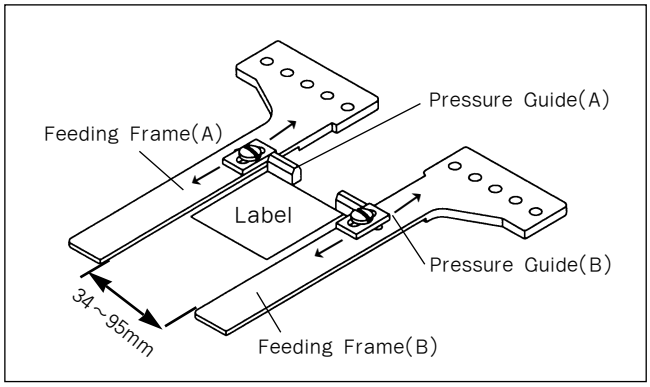
**If the air pressure of the pressure adjuster for the reverse device decreases in the middle of use (3Kgf/㎠ or below), error message will be displayed and the machine will stop its operation.**

**Note**

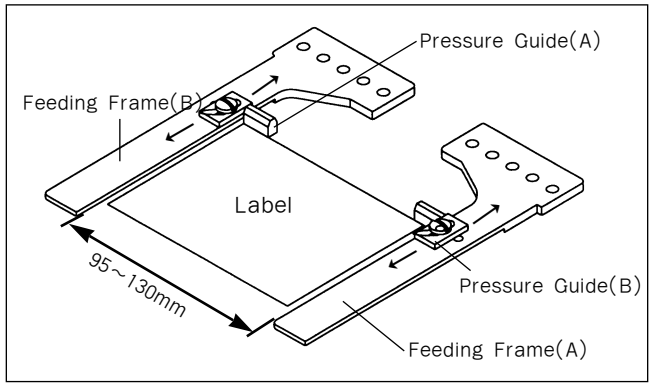
**When closing the finger valve after use, the remaining air inside the valve will be released. Therefore, the air pressure is displayed 0 MPa (0 Kfg/㎠).**

## 4. Adjusting the Reversal Feeding Frame

1) Attach the feeding frame guide (A) and (B) to the feeding frame (A) and (B).
2) If the width of label is 34~95mm, attach them as seen in the fig. 9, and if 95~130mm, attach them as seen in the fig. 10.




[ Fig. 9 ]

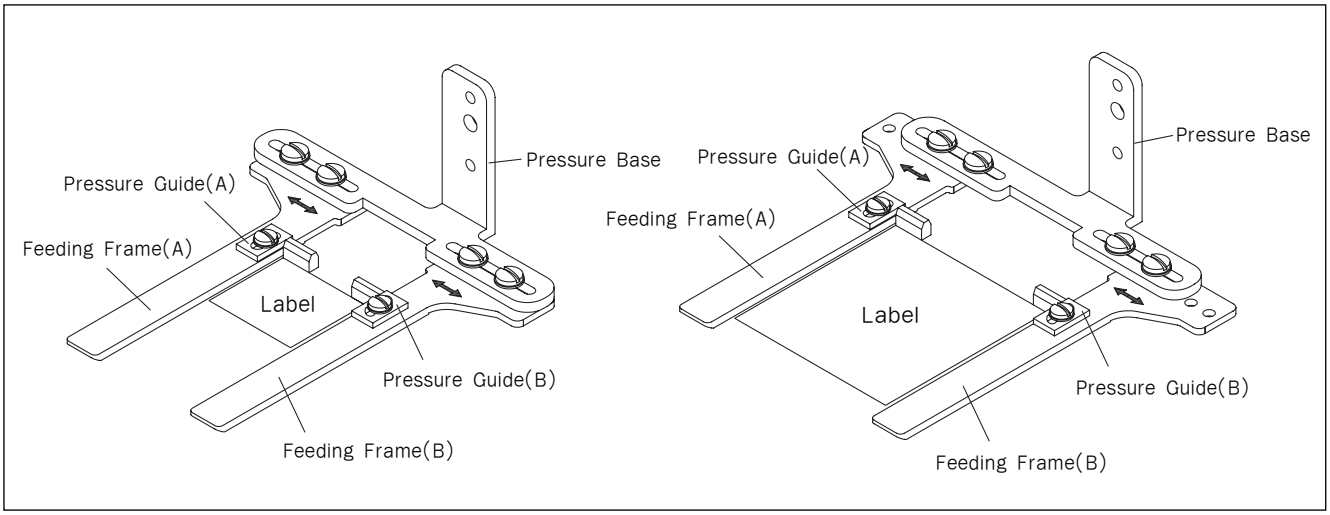



[ Fig. 10 ]

3) Adjust the precise position by moving the pressure guide (A) and (B) to the arrow direction according to the available sewing range for label.

| Caution | **As seen in the fig. 9, if the pressure guide (A) and (B) is interfered with the reversal crank since the width of label is too small, remove the pressure guide (A) and (B).** |
|---|---|

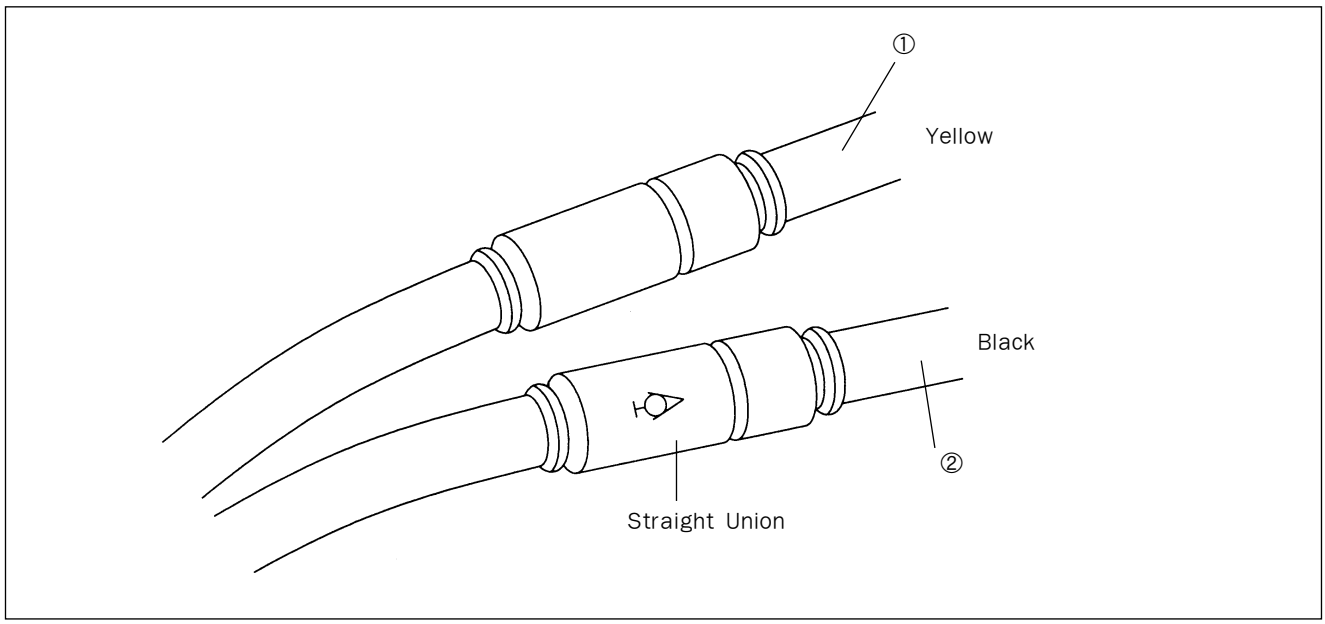
4) Attach the feeding frame (A) and (B) to the feeding frame base.
Adjust the precise position by moving the width of label to the arrow direction.




[ Fig. 11 ]

## 5. Removing the Inverting Clamp Devices

1) Remove the inverting clamp devices when the machine is worked with standard specification.
2) Remove the inverting air tube ① and ② from one-touch juncture and straight union.
3) Unfasten the fixing screws and take off the parts for the inverting clamp devices.

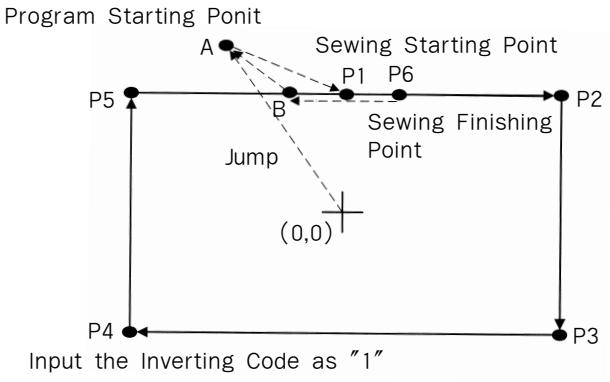



[ Fig. 12 ]

# 3

# The Use of Inverting Functions

They are used when inverting clamp devices are available. During programming the patterns, pay attention to that inverting clamp is interfered with needle bar, or inverting cylinder drive part is interfered with needle bar. There are two ways for inputting inverting codes (the orders to drive inverting devices), one is to call the already programmed pattern to add the inverting codes and the other is to program newly.




## 1. Pattern Programming by Using the Inverting Code

① Insert a floppy diskette into a floppy disk drive.
② Press a MODE key.
③ By using Arrow Keys ▲▼ , move to "2. Program" menu, then press ENTER ↵ key. At this time, the upper feed plate descends and move to the origin.

```
<<  Main Menu>>
2. Program
3. Bobbin Wind
4. Machine Test
```

```
ORIGIN
X:00000A N:00000
Y:00000A
Function Code?
```

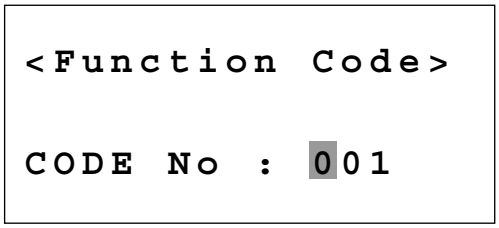
④ After pressing JUMP key, move to the A point by pressing Arrow Keys. Then press PNT SET key.

```
004:JUMP
X:?????
Y:?????
N:001
```

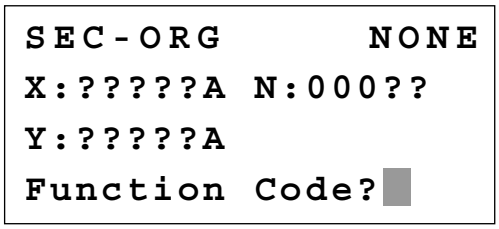
⑤ If you press EXE key, the machine operates pattern date, then upper feed plate moves according the operated data.

```
JUMP          NONE
X:?????A N:000??
Y:?????A
Function Code?
```

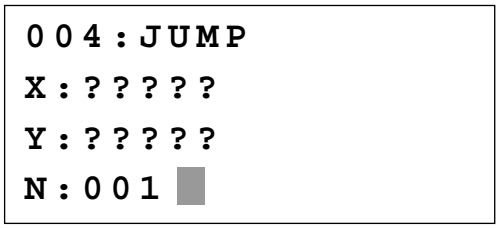
⑥ After pressing CODE key, set up the 2nd origin by pressing digit keys, [0][0][1].



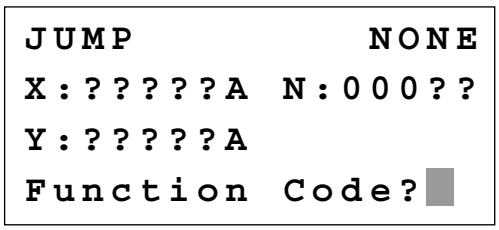

⑦ Press ENTER key.



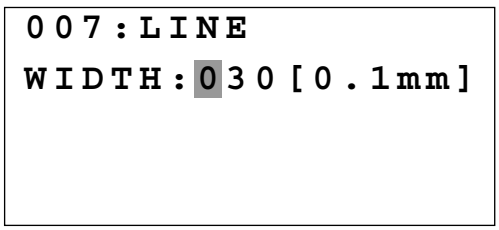

⑧ After pressing JUMP key, move to the sewing start point P1, by pressing Arrow key. Then press PNT SET key.



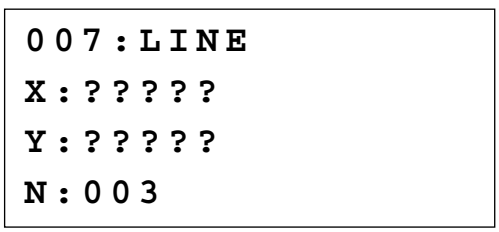

⑨ If you press EXE key, the machine operates pattern data, then upper feed plate moves according the operated data.



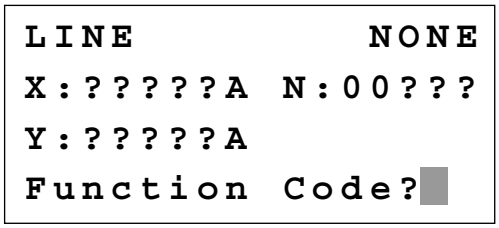

⑩ After pressing LINE key, input the stitch width by using digit keys, then press ENTER ↵ key.
(For example, if you want to set up 3mm as stitch width, input [0][3][0].)



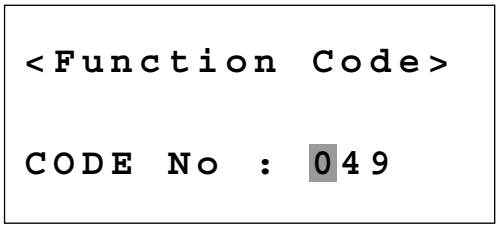

⑪ Move to the P2, P3, and P4 by using Arrow keys, then press PNT SET key each time to input the coordinates of each corner.



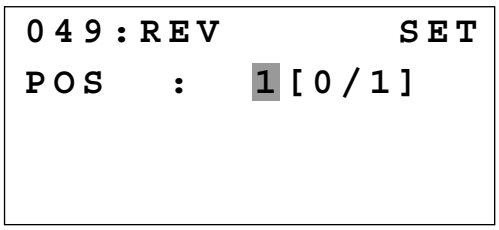

⑫ If you press EXE key, the machine operates pattern data, then upper feed plate moves according the operated data.



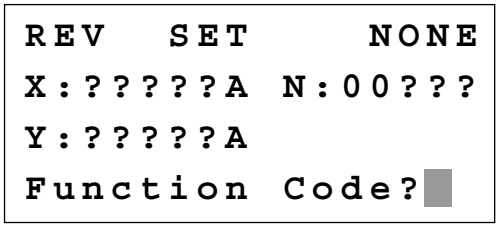
⑬ After pressing CODE key, input the inverting code by pressing digit keys [0][4]and [9].



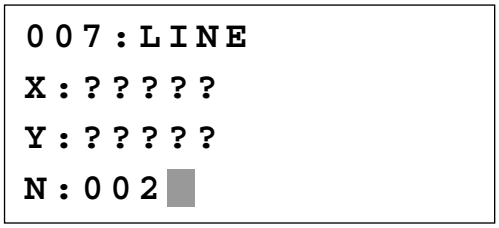

⑭ Press ENTER key. Operate the inverting cylinder by pressing digit key, 1.



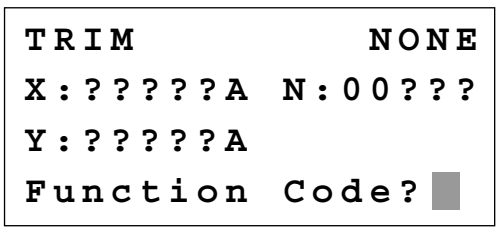

⑮ After confirming, input the inverting code by pressing ENTER key.



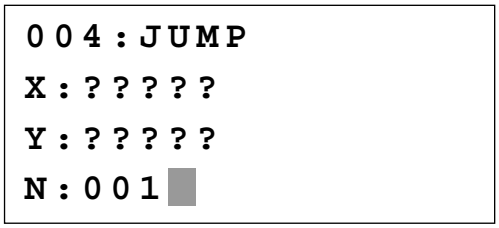

⑯ Program P5 and P6 by using LINE.



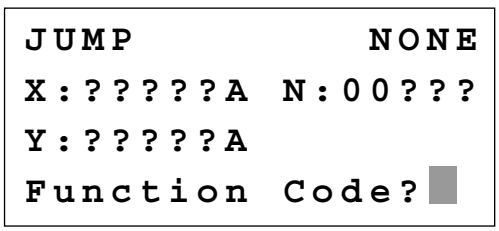

⑰ Press Trim key to input trimming code.
"000 : TRIM" appears on the screen, then the screen on the right appears again.



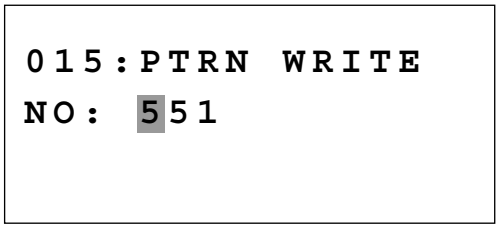

⑱ After pressing JUMP key, move to the B point by using digit keys. Then, press PNT SET key.

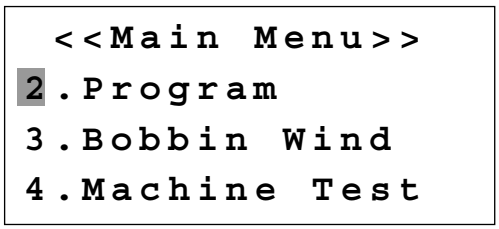



⑲ If you press EXE key, the machine operates pattern data, then upper feed plate moves according the operated data.



⑳ Perform test sewing.
㉑ After pressing WRITE key, input the number you want to save by using digit keys, and press ENTER ↵ key. Save the generated pattern data into a floppy diskette as the relevant number.
(For example, to save the pattern number as 551, input [5][5]and [1].)
㉒ For completing pattern data generation, press MODE key. The upper feed plate moves to the origin, then ascends. To back to the initial screen, press ESC key.

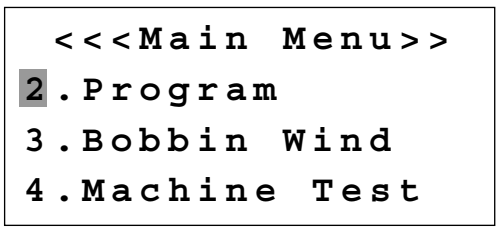


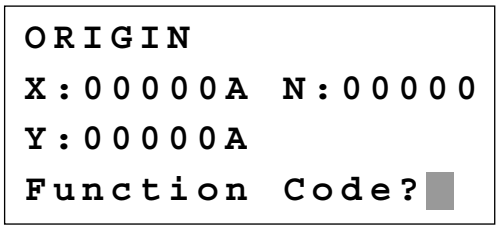




## 2. Adding the Codes for Reversal to the Patterns Already Programmed

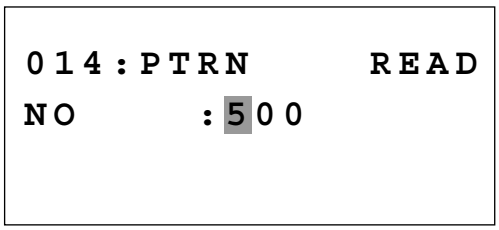
### 1) Reading the pattern that does not have inverting codes.

① Insert a floppy diskette that has a pattern to be added the inverting code.
② Press MODE key.
③ After moving to "2. Program" menu by using Arrow key, ▲▼, press ENTER ↵ key. At this time, the upper feed plate descends and moves to the origin.



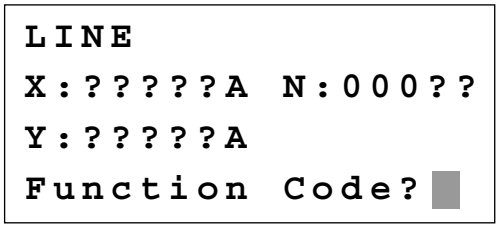




④ After pressing READ key, input the pattern number that contains a sewing speed you want to change by using digit keys, then press ENTER key to read the pattern.
(For example, to read pattern number 500, input [5][0][0].)

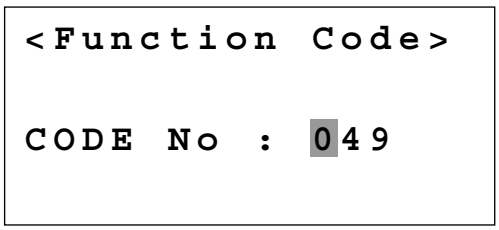



### 2) Inserting the inverting code

⑤ Add the inverting code by using FORW, BACK keys, and move to the P4 that you want to add the inverting code.




⑥ After pressing CODE key, input the inverting code by pressing digit keys, [0][4] and [9].



⑦ Press ENTER key.
Operate the inverting cylinder by pressing digit key 1.

```
049:REV        SET
POS   :1[0/1]
```

⑧ After confirming, press ENTER key to input the inverting code.

```
REV      SET
X:?????A N:00???
Y:?????A
Function Code?
```

### 3) Test sewing

⑨ Press TEST key. After moving to the origin, the upper feed plate moves to the sewing start point and ascends to turn on the READY LED. After adjusting proper speed for test sewing by pressing SPEED key, if you press down right pedal switch once, the upper feed plate descends, and if you press down left pedal switch once more, the test sewing comes to start. After completing the test sewing, the up-feed plate moves to the sewing start point then ascends.

```
 <Test Sewing>
       SP:1200
```

⑩ By repressing TEST key, complete the test sewing. After the upper feed plate descends and moves to the origin, the READY LED turns off.

```
ORIGIN
X:00000A N:00000
Y:00000A
Function Code?
```

### 4) Saving as new pattern number

⑪ After pressing WRITE key, input the pattern number you want to save by using digit key, and press ENTER ↵ key. Save the generated pattern data into a floppy diskette as a relevant number. (For example, to save the pattern number as 552, input [5],[5]and [2].) During saving the pattern, READY LED flickers. After completing the saving, the READY LED turns off, and the upper feed plate moves to the origin.

```
015:PTRN WRITE
N0:552
```

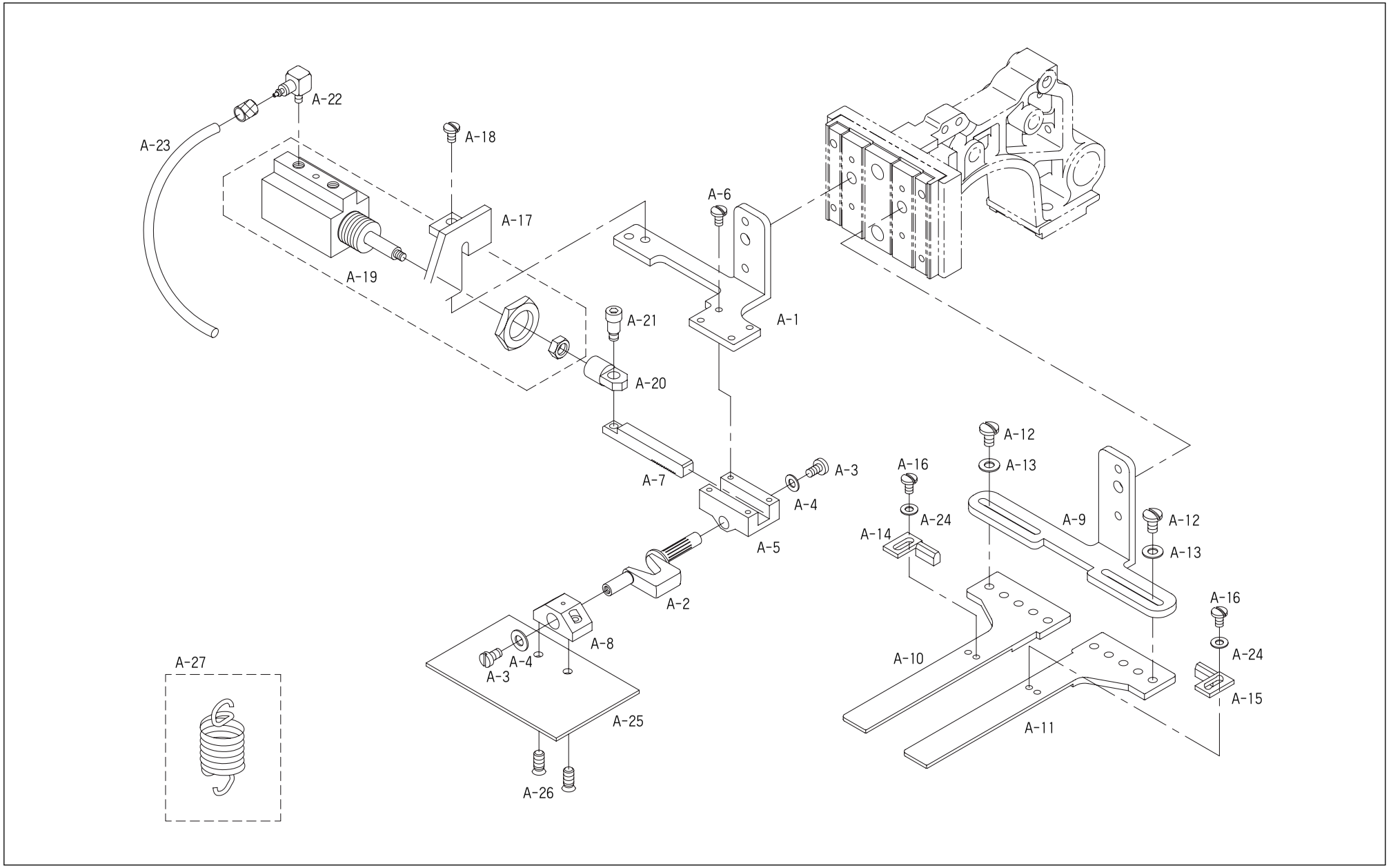
```
ORIGIN
X:00000A N:00000
Y:00000A
Function Code?
```

⑫ To complete the pattern data generation, press MODE key. After moving to the origin, the upper feed plate ascends. To back to he initial screen, press ESC key.

```
 <<Main Menu>>
2.Program
3.Bobbin Wind
4.Machine Test
```

# Parts book

# Inverting Clamp Devices Mechanism ( SPS/E-1507 Series )

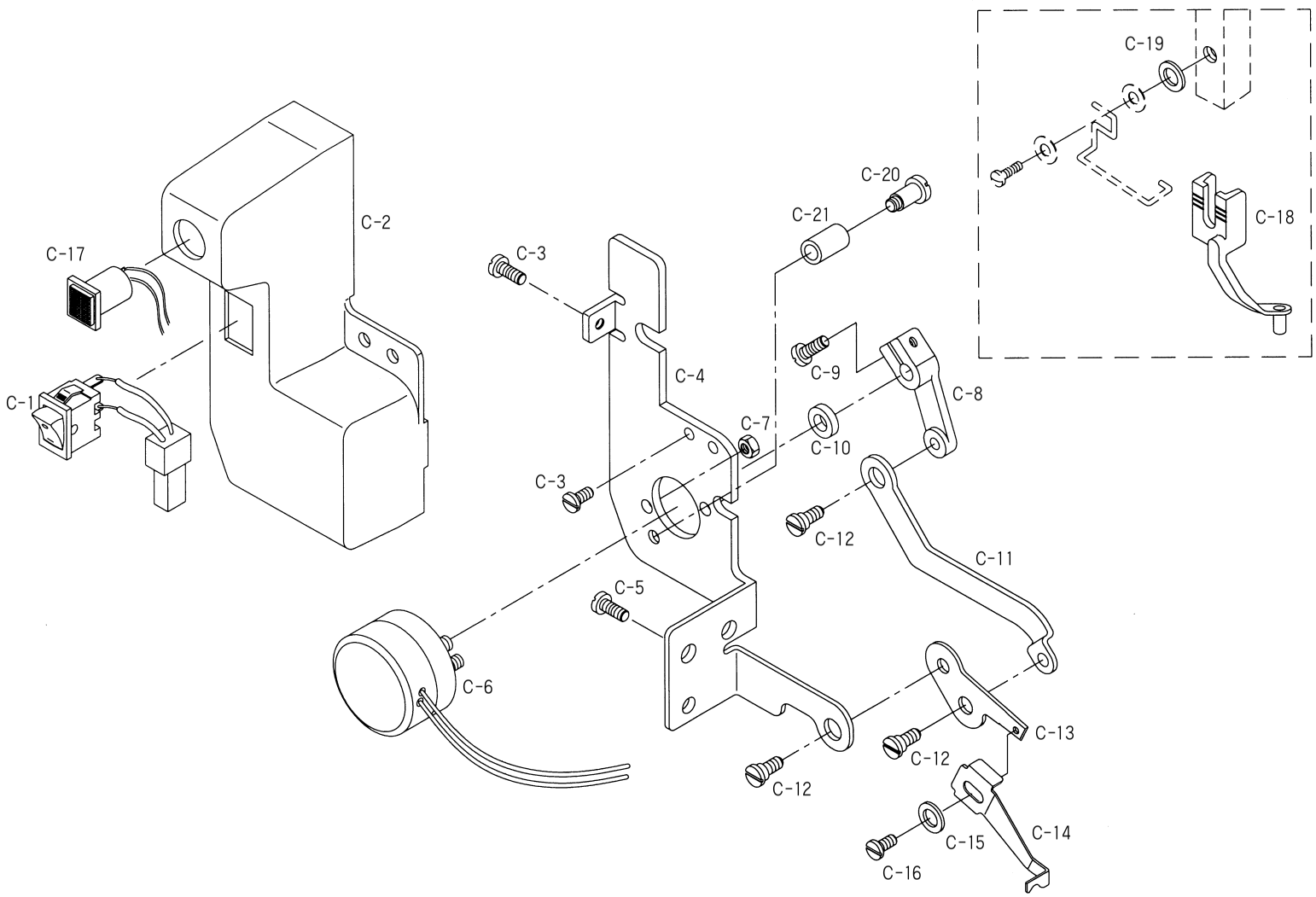


| Ref. No. | Parts No. | Parts Names | Q'ty |
|---|---|---|---|
| A-1 | GP-022267-00 | Inverting Base | 1 |
| A-2 | GP-022262-00 | Inverting Crank | 1 |
| A-3 | 52A003S-306H | Screw (1/8" n=40) | 2 |
| A-4 | SW-0103-9011 | Washer | 2 |
| A-5 | 52A005S-306H | Inverting Crank Base | 1 |
| A-6 | SC-0524-4122 | Screw (1/8" n=44) | 4 |
| A-7 | GP-022265-00 | Inverting Rack | 1 |
| A-8 | 52A008S-306H | Inverting Support Base | 1 |
| A-9 | GP-022266-00 | Presser Plate Base | 1 |
| A-10 | GP-022263-00 | Feeding Frame (A) | 1 |
| A-11 | GP-022264-00 | Feeding Frame (B) | 1 |
| A-12 | SC-0543-4525 | Screw (11/64 n=40) | 4 |
| A-13 | 22S021S-306H | Washer | 4 |
| A-14 | 52A014S-306H | Guide Presser (A) | 1 |
| A-15 | 52A015S-306H | Guide Presser (B) | 1 |
| A-16 | SC-0502-4125 | Screw (9/64" n=40) | 1 |
| A-17 | 52A017S-306H | Inverting Cylinder Bracket | 1 |
| A-18 | SC-0548-4122 | Screw (3/16 n=28) | 2 |
| A-19 | 09A019S-306H | Inverting Cylinder Ass'y | 1set |
| A-20 | 09A029S-811H | Inverting Cylinder Knuckle | 1 |
| A-21 | 09A030S-811H | Inverting Rack Hinge Screw | 2 |
| A-22 | 49A029S-811H | Air Elbow | 2 |
| A-23 | 05A039S-811H | Air Hose ($\phi$4) | 1 |
| A-24 | 01-017W-1600 | Washer | 2 |
| A-25 | GP-022261-00 | Inverting Presser Plate(A) | 1 |
| A-26 | 09A023S-811H | Screw | 1 |
| ★ A-27 | 52A022S-306H | Lifting Lever Tension Spring (Invert Clamp) | 1 |

| Ref. No. | 부품번호 | 품 명 | 수량 |
|---|---|---|---|
| A-1 | GP-022267-00 | 반전 베이스 | 1 |
| A-2 | GP-022262-00 | 반전 크랭크 | 1 |
| A-3 | 52A003S-306H | 죔나사 | 2 |
| A-4 | SW-0103-9011 | 와셔 | 2 |
| A-5 | 52A005S-306H | 반전 크랭크 베이스 | 1 |
| A-6 | SC-0524-4122 | 죔나사 | 4 |
| A-7 | GP-022265-00 | 반전 랙 | 1 |
| A-8 | 52A008S-306H | 반전 누름 베이스 | 1 |
| A-9 | GP-022266-00 | 반전 누름판 베이스 | 1 |
| A-10 | GP-022263-00 | 이송 후레임(A) | 1 |
| A-11 | GP-022264-00 | 이송 후레임(B) | 1 |
| A-12 | SC-0543-4525 | 죔나사 | 4 |
| A-13 | 22S021S-306H | 와셔 | 4 |
| A-14 | 52A014S-306H | 누름판 가이드 (A) | 1 |
| A-15 | 52A015S-306H | 누름판 가이드 (B) | 1 |
| A-16 | SC-0502-4125 | 죔나사 | 1 |
| A-17 | 52A017S-306H | 반전 실린더 브라켓 | 1 |
| A-18 | SC-0548-4122 | 죔나사 | 2 |
| A-19 | 09A019S-306H | 반전 실린더 (조) | 1set |
| A-20 | 09A029S-811H | 반전 실린더 너클 | 1 |
| A-21 | 09A030S-811H | 반전 랙 힌지나사 | 2 |
| A-22 | 49A029S-811H | 에어 엘보우 | 2 |
| A-23 | 05A039S-811H | 에어호스 | 1 |
| A-24 | 01-017W-1600 | 와셔 | 2 |
| A-25 | GP-022261-00 | 반전 누름판 | 1 |
| A-26 | 09A023S-811H | 죔나사 | 1 |
| ★ A-27 | 52A022S-306H | 올림레버 인장 스프링 (반전용) | 1 |

Note)★Registered A-27 parts are electronic kinds of machine.

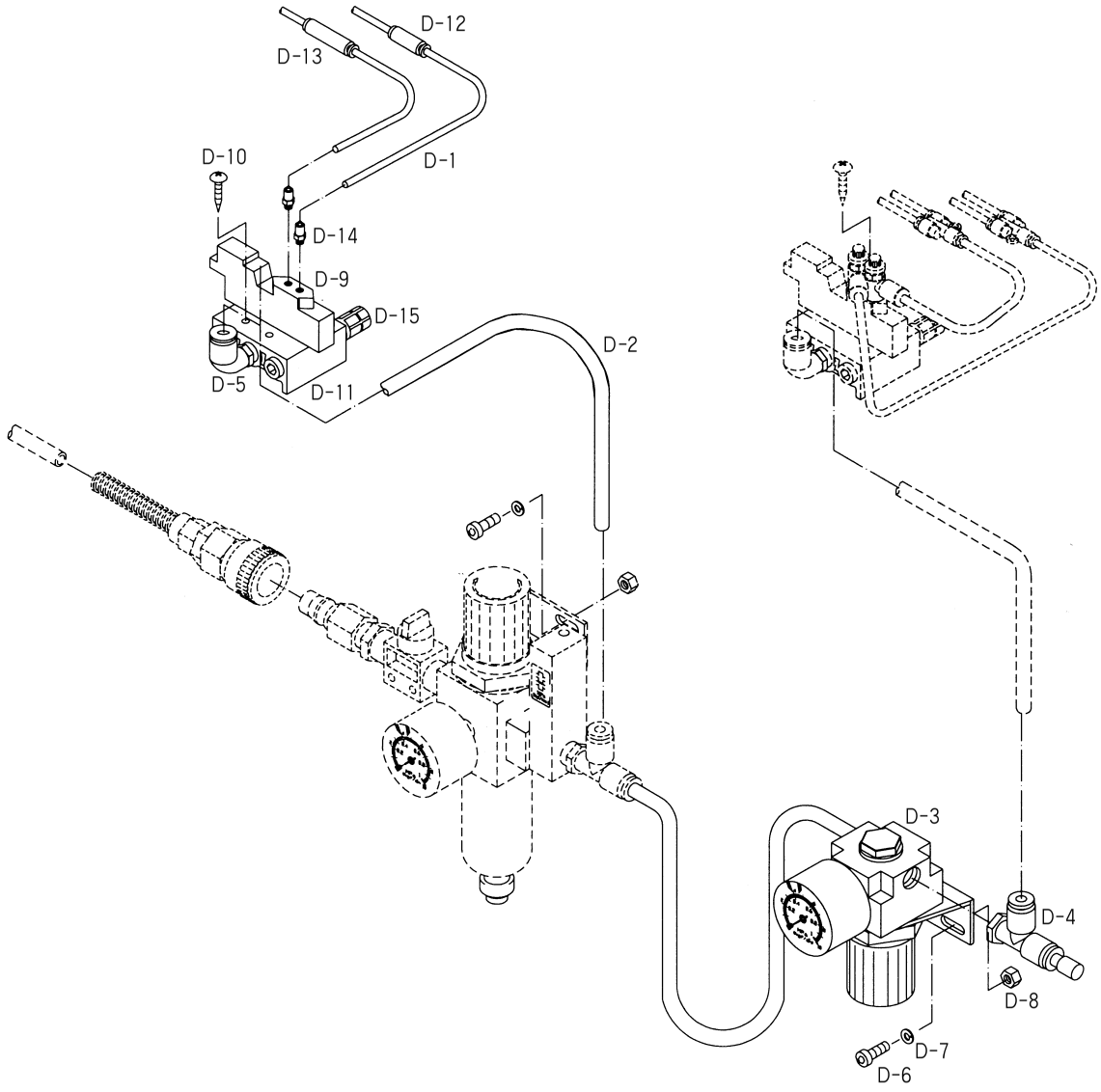
# Wiper & Presser Foot Mechanism



| Ref. No. | Parts No. | Parts Names | Q'ty |
|---|---|---|---|
| B-1 | 11S036S-306H | Wiper On/Off Switch Ass'y | 1Set |
| B-2 | 09A004S-811H | Wiper Cover | 1 |
| B-3 | SC-0543-4525 | Screw (11/64" n=40) | 3 |
| B-4 | 09A005S-811H | Wiper Base | 1 |
| B-5 | SC-0525-4122 | Screw (11/64" n=40) | 2 |
| B-6 | 09A001S-811H | Wiper Solenoid Ass'y | 1 |
| B-7 | | Nut (M4×P0.7) | 1 |
| B-8 | 09A006S-811H | Wiper Crank | 1 |
| B-9 | SC-0330-4422 | Screw (15/64" n=28) | 1 |
| B-10 | 06-034W-7400 | Washer | 1 |
| B-11 | 09A007S-811H | Wiper Connecting Rod | 1 |
| B-12 | 05A045S-811H | Hinge Screw For B-11 | 3 |
| B-13 | 09A008S-811H | Wiper Installing Plate | 1 |
| B-14 | 09A009S-811H | Wiper | 1 |
| B-15 | 01-071W-1600 | Washer | 1 |
| B-16 | SC-0502-4125 | Screw (9/64" n=28) | 1 |
| B-17 | 01S057S-306H | Emergency Switch | 1 |
| B-18 | 09A003S-811H | Presser Foot | 1 |
| B-19 | 09A002S-811H | Washer | 1 |
| B-20 | 09A036S-811H | Stud for Wiper Stopper | 1 |
| B-21 | 06-040R-106L | Rubber for Wiper Stopper | 1 |

| Ref. No. | Parts No. | Parts Names | Q'ty |
|---|---|---|---|
| B-1 | 11S036S-306H | 와이퍼 작동 스위치(조) | 1Set |
| B-2 | 09A004S-811H | 와이퍼 커버 | 1 |
| B-3 | SC-0543-4525 | 쥠나사 | 3 |
| B-4 | 09A005S-811H | 와이퍼 베이스 | 1 |
| B-5 | SC-0525-4122 | 쥠나사 | 2 |
| B-6 | 09A001S-811H | 와이퍼 솔레노이드(조) | 1 |
| B-7 | | 너트 | 1 |
| B-8 | 09A006S-811H | 와이퍼 크랭크 | 1 |
| B-9 | SC-0330-4422 | 쥠나사 | 1 |
| B-10 | 06-034W-7400 | 와셔 | 1 |
| B-11 | 09A007S-811H | 와이퍼 연결 로드 | 1 |
| B-12 | 05A045S-811H | 와이퍼 연결 쥠나사 | 3 |
| B-13 | 09A008S-811H | 와이퍼 부착판 | 1 |
| B-14 | 09A009S-811H | 와이퍼 | 1 |
| B-15 | 01-071W-1600 | 와셔 | 1 |
| B-16 | SC-0502-4125 | 쥠나사 | 1 |
| B-17 | 01S057S-306H | 비상스위치 | 1 |
| B-18 | 09A003S-811H | 노루발 | 1 |
| B-19 | 09A002S-811H | 와셔 | 1 |
| B-20 | 09A036S-811H | 와이퍼 스토퍼 단나사 | 1 |
| B-21 | 06-040R-106L | 와이퍼 스토퍼 고무 | 1 |

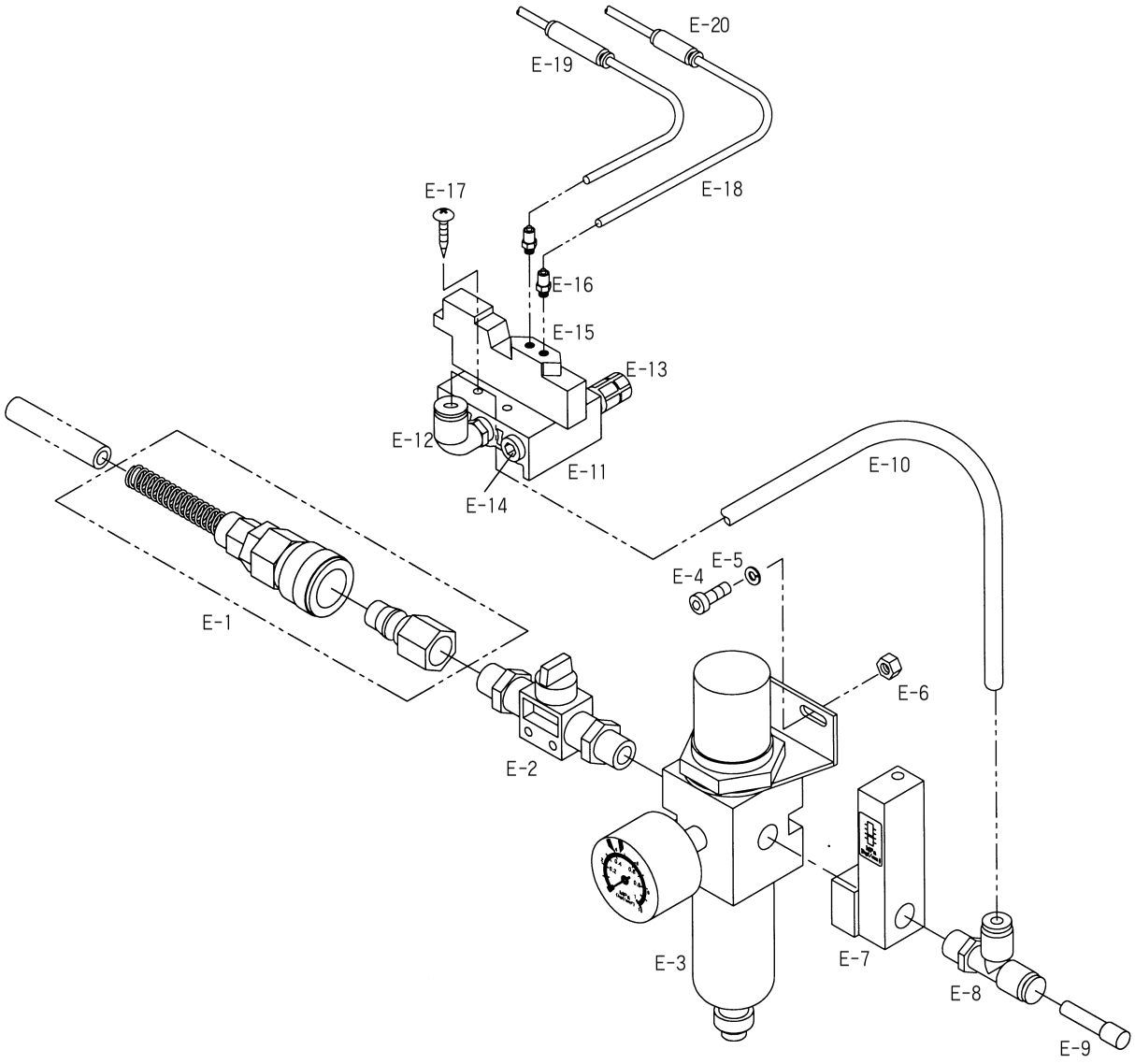
# Pneumatic Control Mechanism ( SPS/E-1507 Pneumatic Machine Seires )



| Ref. No. | Parts No. | Parts Names | Q'ty |
|---|---|---|---|
| C-1 | 49A001S-811H | Urethane Hose (ϕ4) | |
| C-2 | 05A052S-811H | Urethane Hose (ϕ6) | |
| C-3 | 49A006S-811H | Regulator | 1 |
| C-4 | 49A009S-811H | Tee | 1 |
| C-5 | 49A014S-811H | Elbow Union | 1 |
| C-6 | 02031SC-2113 | Screw (M5×P0.8) | 2 |
| C-7 | 10-010W-7507 | Washer | 2 |
| C-8 | SN-0115-2000 | Nut (M5×P0.8) | 2 |
| C-9 | 49A017S-811H | Solenoid Valve | 1 |
| C-10 | 49A018S-811H | Tapping Screw | 2 |
| C-11 | | Solenoid Valve Bracket | 1 |
| C-12 | 49A013S-811H | Straight Union | 1 |
| C-13 | 49A100S-811H | Check Valve | 1 |
| C-14 | 49A015S-811H | Hose Nipple | 2 |
| C-15 | 49A020S-811H | Silencer | 2 |

| Ref. No. | Parts No. | Parts Names | Q'ty |
|---|---|---|---|
| C-1 | 49A001S-811H | 우레탄 호스 (ϕ4) | |
| C-2 | 05A052S-811H | 우레탄 호스 (ϕ6) | |
| C-3 | 49A006S-811H | 압력 조정기 | 1 |
| C-4 | 49A009S-811H | 티 | 1 |
| C-5 | 49A014S-811H | 엘보우 유니온 | 1 |
| C-6 | 02031SC-2113 | 쵭나사 | 2 |
| C-7 | 10-010W-7507 | 와셔 | 2 |
| C-8 | SN-0115-2000 | 너트 | 2 |
| C-9 | 49A017S-811H | 솔레노이드 밸브 | 1 |
| C-10 | 49A018S-811H | 태핑 나사 | 2 |
| C-11 | | 솔레노이드 밸브 브라켓 | 1 |
| C-12 | 49A013S-811H | 스트레이트 유니온 | 1 |
| C-13 | 49A100S-811H | 체크 밸브 | 1 |
| C-14 | 49A015S-811H | 호스 니플 | 2 |
| C-15 | 49A020S-811H | 소음기 | 2 |

# Pneumatic Control Mechanism (SPS/E-1507 Electronic Machine Series)



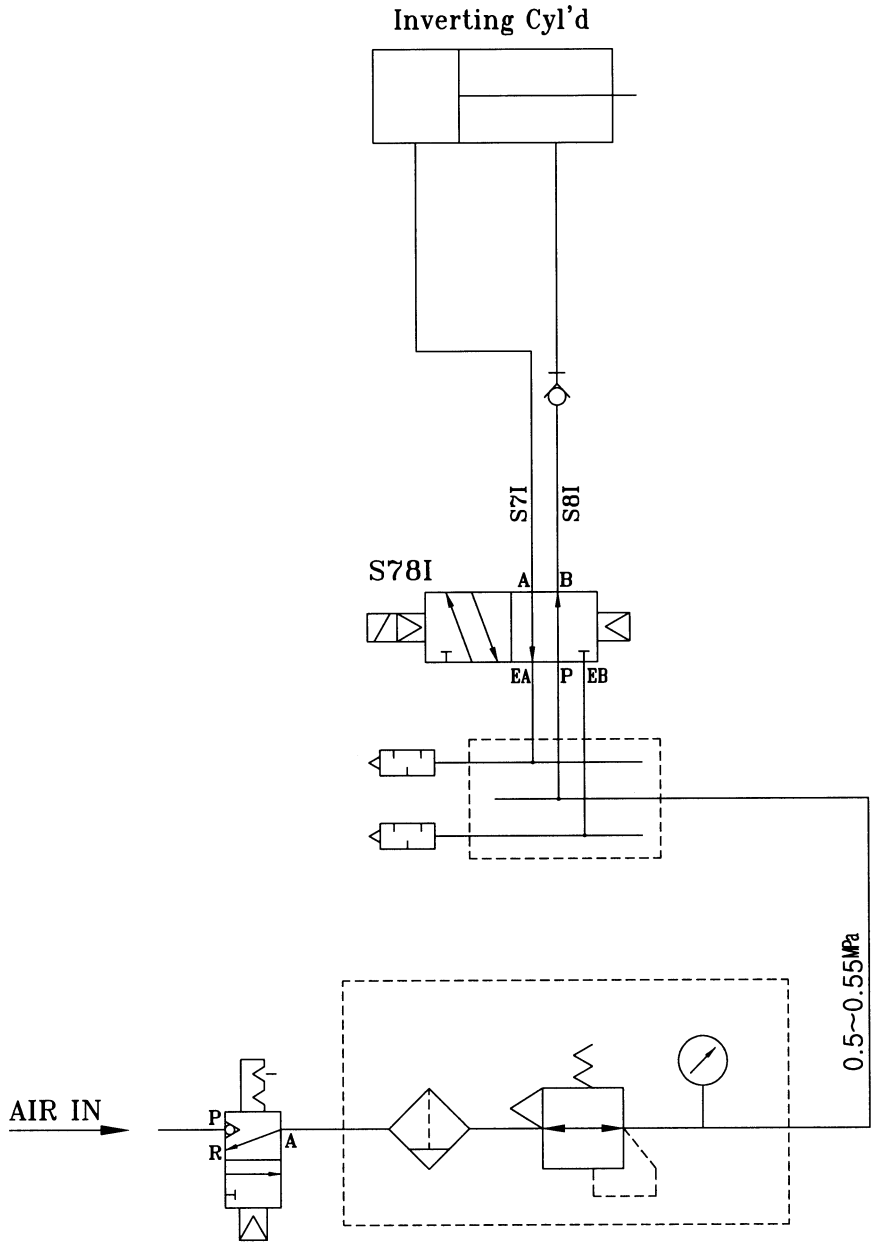
| Ref. No. | Parts No. | Parts Names | Q'ty |
|---|---|---|---|
| D-1 | 49A004S-811H | Quick Joint Plug Ass'y | 1 |
| D-2 | 49A005S-811H | Finger Valve | 1 |
| D-3 | 49A006S-811H | Filter Regulator | 2 |
| D-4 | 49A008S-811H | Screw(M5×P0.8) | 2 |
| D-5 | 10-010W-7507 | Washer | 2 |
| D-6 | 49A009S-811H | Nut (M5×P0.8) | 1 |
| D-7 | 49A007S-811H | Air Pressure Switch | 1 |
| D-8 | 49A011S-811H | Tee | 1 |
| D-9 | 49A013S-811H | Plug(A) | - |
| D-10 | 05A052S-811H | Air Hose (ϕ6) | 1 |
| D-11 | | Manifold Block | 1 |
| D-12 | 49A014S-811H | Elbow Union | 2 |
| D-13 | 49A020S-811H | Silencer | 3 |
| D-14 | 52A014S-306H | Plug (B) | 1 |
| D-15 | 52A015S-306H | Solenoid Valve | 2 |
| D-16 | 49A015S-811H | Hose Nipple | 2 |
| D-17 | 49A018S-811H | Tapping Screw | - |
| D-18 | 49A001S-811GH | Air Hose (ϕ4) | 1 |
| D-19 | | Check Valve | 1 |
| D-20 | | Straight Union | |

| Ref. No. | Parts No. | Parts Names | Q'ty |
|---|---|---|---|
| D-1 | 49A004S-811H | 퀵 조인트 플러그 | 1 |
| D-2 | 49A005S-811H | 핑거 밸브 | 1 |
| D-3 | 49A006S-811H | 압력 조정기 | 2 |
| D-4 | 49A008S-811H | 고정나사 | 2 |
| D-5 | 10-010W-7507 | 와셔 | 2 |
| D-6 | 49A009S-811H | 너트 | 1 |
| D-7 | 49A007S-811H | 압력 스위치 | 1 |
| D-8 | 49A011S-811H | 티 | 1 |
| D-9 | 49A013S-811H | 플러그 (A) | - |
| D-10 | 05A052S-811H | 에어 호스 (ϕ6) | 1 |
| D-11 | | 매니폴드 블럭 (1련) | 1 |
| D-12 | 49A014S-811H | 엘보우 유니온 | 2 |
| D-13 | 49A020S-811H | 소음기 | 3 |
| D-14 | 52A014S-306H | 플러기 (B) | 1 |
| D-15 | 52A015S-306H | 솔레노이드 밸브 | 2 |
| D-16 | 49A015S-811H | 호스 니플 | 2 |
| D-17 | 49A018S-811H | 태핑 나사 | - |
| D-18 | 49A001S-811GH | 에어 호스 (ϕ4) | 1 |
| D-19 | | 체크 밸브 | 1 |
| D-20 | | 스트레이트 유니온 | |

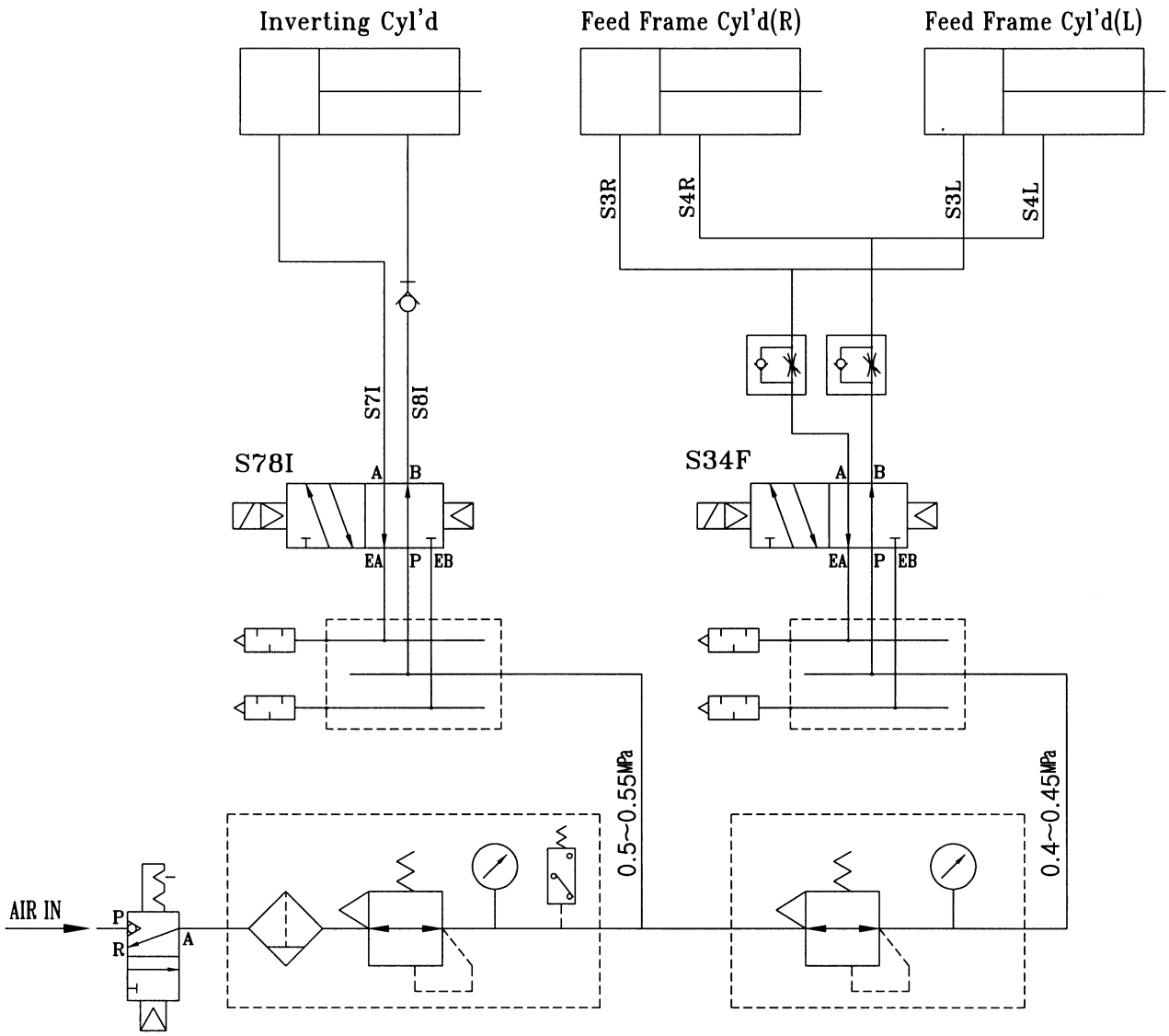
# Attachments

1. Pneumatic circuit diagram for SPS/E-1507 series turnover device

1) SPS/E-1507-HS-10



2) SPS/E-1507-HS-20



3) SPS/E-1507-HS-23(SPS/E-1507-HS-22)