ENGLISH

PLC-2710N-7,2760N,2760N-7,2760NL
INSTRUCTION MANUAL

CONTENTS

⚠ **CAUTION**

This Instruction Manual for the PLC-2710N-7,2760N,2760N-7,2760NL only describes their differences from the standard models (PLC-2710-7,2760,2760-7,2760L).
For safety-related information, carefully read and fully understand "Safety precautions" described in the Instruction Manual for the standard models before using your sewing machine.

1. Specifications

No.	Item	Application	
		PLC-2760N	PLC-2760NL
1	Model	PLC-2760N	PLC-2760NL
2	Model name	Post-bed, 2-needle, unison-feed, lockstitch machine with vertical-axis large Hook	Post-bed, 2-needle, unison-feed, lockstitch machine (for thick thread)
3	Application	Medium- to heavy-weight materials, car seat, furniture	Heavy-weight materials, car seat, furniture
4	Sewing speed	Max. 2,500 sti/min (Refer to **"6. SEWING SPEED TABLE"** in the Instruction Manual for the standard model.)	Max. 2,000 sti/min (Refer to **"6. SEWING SPEED TABLE"** in the Instruction Manual for the standard model.)
5	Needle	GROZ-BECKERT 135 x 17 (Nm 100 to Nm 180) (Standard : Nm 140)	GROZ-BECKERT 135 x 17 (Nm 140 to Nm 200) (Standard : Nm 200)
6	Applicable thread size for sewing	#30 to #5	#8 to #0
7	Applicable thread size to be cut		
8	Stitch length	Max. 12 mm (forward/reverse feed)	
9	Stitch length dial	1-pitch dial	
10	Presser foot lift	Hand lifter : 10 mm Knee lifter : 20 mm	
11	Stitch length adjusting mechanism	By dial	
12	Reverse stitch adjusting method	By lever	
13	Thread take-up	Link thread take-up	
14	Needle bar stroke	40 mm	
15	Amount of the alternate vertical movement	1 mm to 9 mm (Alternate vertical dial adjustment type)	
16	Hook	Vertical-axis 2-fold hook (Latch type)	
17	Feed mechanism	Box feed	
18	Top and bottom feed actuation mechanism	Timing belt	
19	Thread trimming method		
20	Lubrication	Automatic lubrication by oil tank (with oil gauge)	
21	Lubricating oil	JUKI New Defrix Oil No. 1 (equivalent to ISO standard VG7) or JUKI MACHINE OIL No. 7	
22	Bed size	643 mm × 178 mm	
23	Space under the arm	347 mm × 298 mm	
24	Hand wheel size	V-belt effective diameter : ø76.0 mm Outer diameter : ø140 mm	
25	Motor/Control box	M51N 750W / SC-922A	
26	Machine head weight	79 kg	
27	Noise	- Equivalent continuous emission sound pressure level (L_{pA}) at the workstation: A-weighted value of 84.0 dB; (Includes K_{pA} = 2.5 dB); according to ISO 10821- C.6.2 - ISO 11204 GR2 at 2,500 sti/min. - Sound power level (L_{WA}); A-weighted value of 86.0 dB; (Includes K_{WA} = 2.5 dB); according to ISO 10821- C.6.2 - ISO 3744 GR2 at 2,500 sti/min.	- Equivalent continuous emission sound pressure level (L_{pA}) at the workstation: A-weighted value of 88.0 dB; (Includes K_{pA} = 2.5 dB); according to ISO 10821- C.6.2 - ISO 11204 GR2 at 2,000 sti/min. - Sound power level (L_{WA}); A-weighted value of 93.5 dB; (Includes K_{WA} = 2.5 dB); according to ISO 10821- C.6.2 - ISO 3744 GR2 at 2,000 sti/min.

No.	Item	Application	
1	Model	PLC-2710N-7	PLC-2760N-7
2	Model name	Post-bed, 1-needle, unison-feed, lockstitch machine with vertical-axis large hook, with thread trimmer	Post-bed, 2-needle, unison-feed, lockstitch machine with vertical-axis large hook, with thread trimmer
3	Application	Medium- to heavy-weight materials, car seat, furniture	
4	Sewing speed	Max. 2,500 sti/min (Refer to **"6. SEWING SPEED TABLE"** in the Instruction Manual for the standard model.) ***1**	
5	Needle	GROZ-BECKERT 135 x 17 (Nm 100 to Nm 180) (Standard : Nm 140)	
6	Applicable thread size for sewing	#30 to #5	
7	Applicable thread size to be cut	#30 to #5	
8	Stitch length	Max. 12 mm (forward/reverse feed)	
9	Stitch length dial	2-pitch dial	
10	Presser foot lift	Hand lifter : 10 mm Automatic presser foot lifter : 20 mm	
11	Stitch length adjusting mechanism	By dial	
12	Reverse stitch adjusting method	Air cylinder type (with touch-back switch)	
13	Thread take-up	Link thread take-up	
14	Needle bar stroke	40 mm	
15	Amount of the alternate vertical movement	1 mm to 9 mm (Alternate vertical dial adjustment type)	
16	Hook	Vertical-axis 2-fold hook (Latch type)	
17	Feed mechanism	Box feed	
18	Top and bottom feed actuation mechanism	Timing belt	
19	Thread trimming method	Cam-driven scissors type	
20	Lubrication	Automatic lubrication by oil tank (with oil gauge)	
21	Lubricating oil	JUKI New Defrix Oil No. 1 (equivalent to ISO standard VG7) or JUKI MACHINE OIL No. 7	
22	Bed size	643 mm × 178 mm	
23	Space under the arm	347 mm × 298 mm	
24	Hand wheel size	Outer diameter : ø123 mm	
25	Motor/Control box	SC-922B	
26	Machine head weight	81 kg	84 kg
27	Rated power consumption	193VA	
28	Noise	- Equivalent continuous emission sound pressure level (L_{pA}) at the workstation: A-weighted value of 79.5 dB; (Includes K_{pA} = 2.5 dB); according to ISO 10821- C.6.2 - ISO 11204 GR2 at 2,500 sti/min.	- Equivalent continuous emission sound pressure level (L_{pA}) at the workstation: A-weighted value of 84.0 dB; (Includes K_{pA} = 2.5 dB); according to ISO 10821- C.6.2 - ISO 11204 GR2 at 2,500 sti/min. - Sound power level (L_{WA}); A-weighted value of 86.0 dB; (Includes K_{WA} = 2.5 dB); according to ISO 10821- C.6.2 - ISO 3744 GR2 at 2,500 sti/min.

*1   The speed setting according to the amount of the alternating vertical movement of the walking foot and presser foot is automatically carried out.
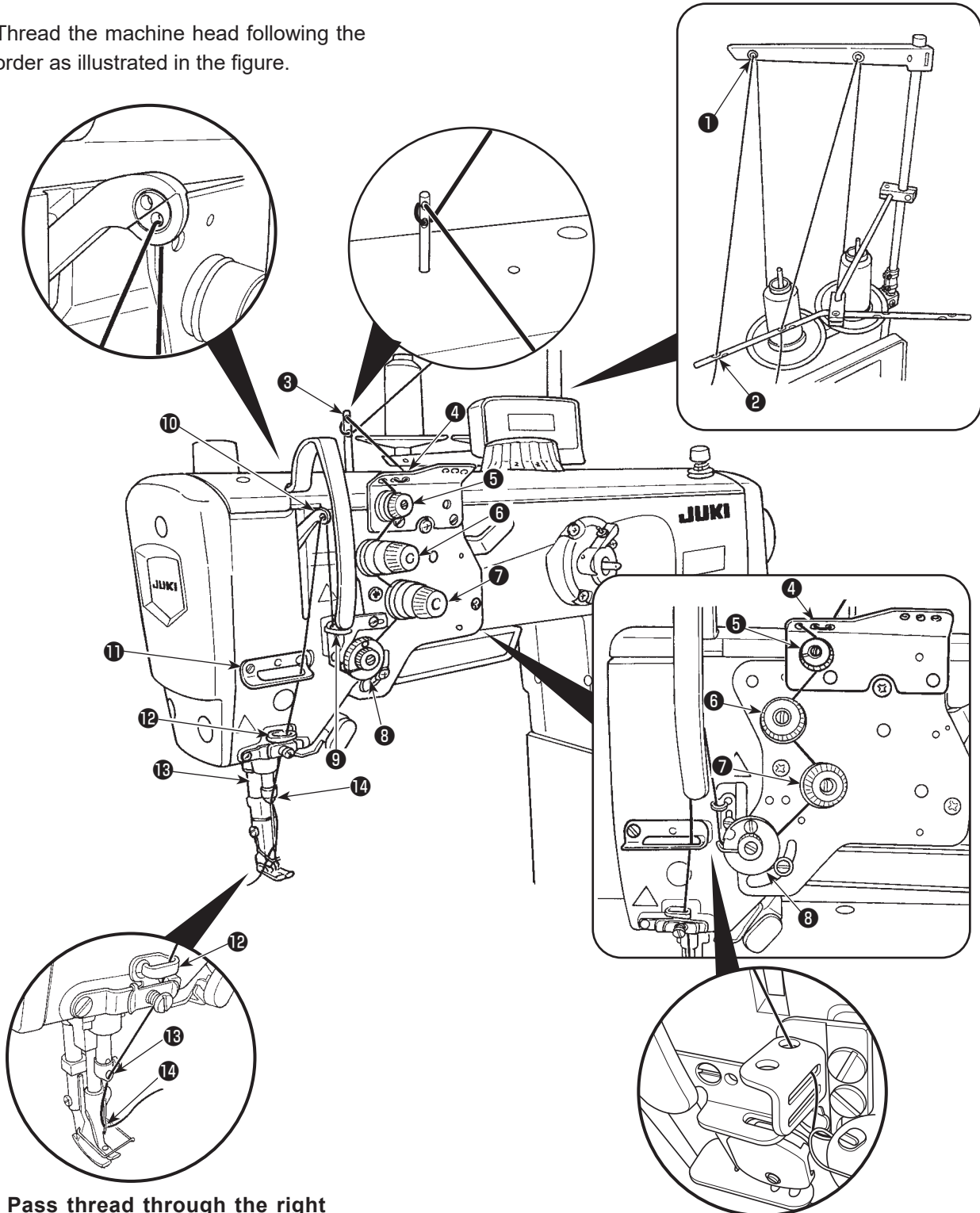
2. Threading the machine head

⚠️ **WARNING :**
To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.

Thread the machine head following the order as illustrated in the figure.

* Pass thread through the right side of thread guide ⓬ .

WARNING :
To protect against possible personal injury due to abrupt start of the machine, be sure to start the following work after turning the power off and ascertaining that the motor is at rest.

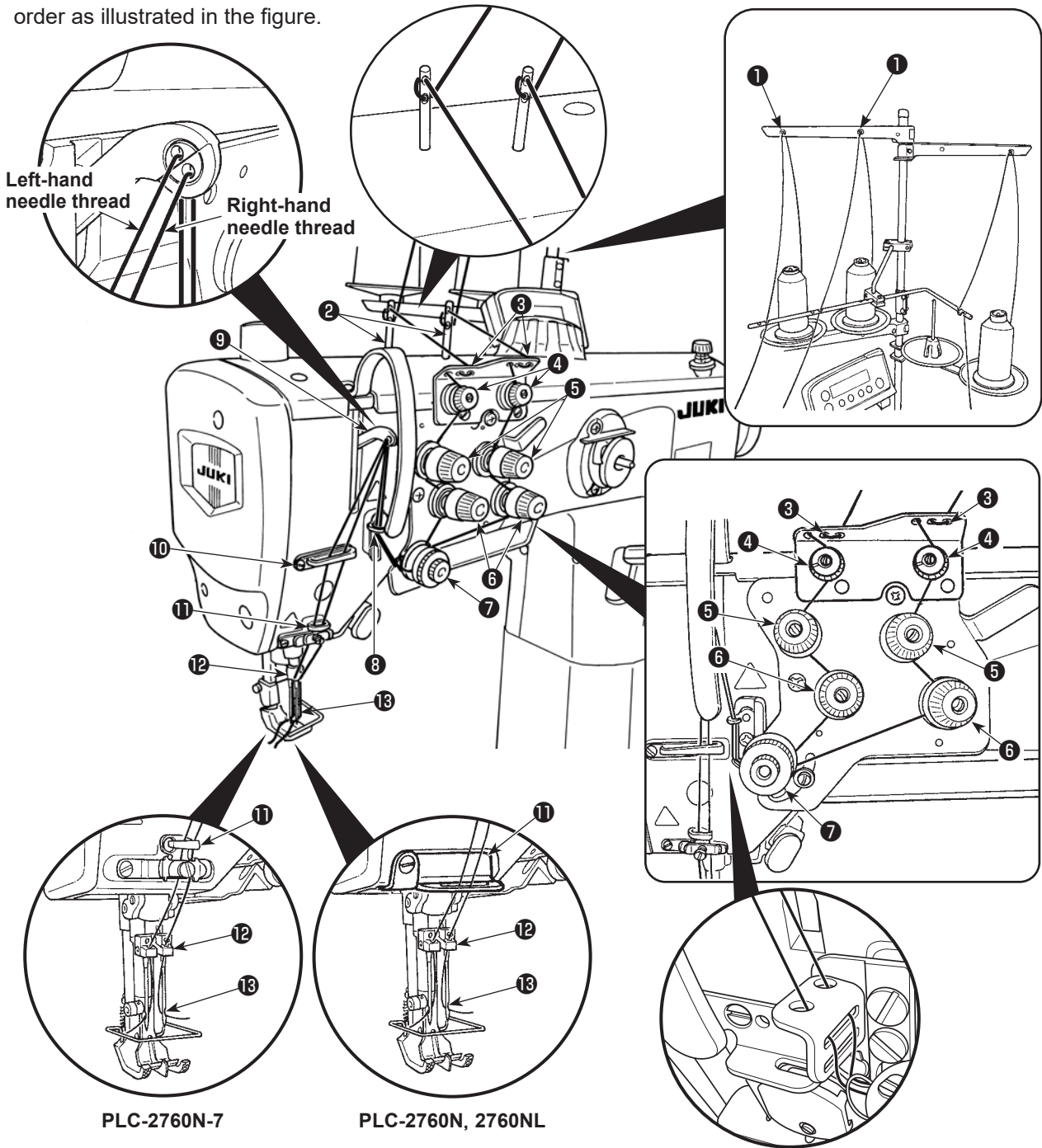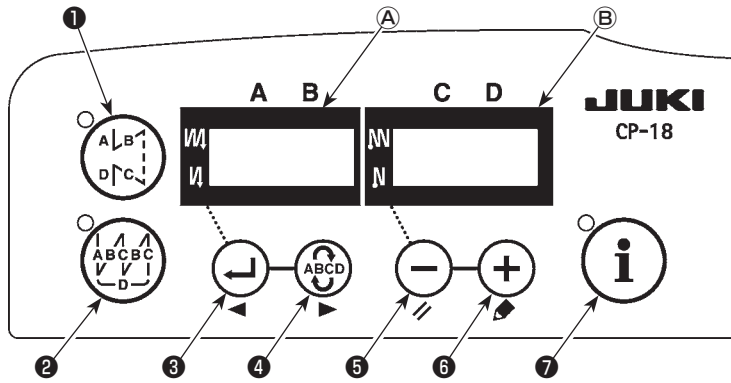Thread the machine head following the order as illustrated in the figure.

Left-hand needle thread

Right-hand needle thread

PLC-2760N-7

PLC-2760N, 2760NL

3. Setting the pneumatic center guide (PLC-2760N,2760N-7,2760NL)

3-1. Selection of the optional input function

1. While holding down (i) switch ❼ , turn the power ON. (The display items that have been changed in the previous operation will be displayed.)

   * If the screen display does not change, start over the operation again from the beginning.

`|  |  | 1 | 2 | o | P | T | _ |`

2. Press (ABCD) switch ❹ to advance the setting number to select the function No. 12. If you want to return the setting number, press (↵) switch ❸ to return it.

   (Caution) **When you advance (return) the setting number, the previous (or next) content is confirmed. It is necessary, therefore, to be very careful when you have changed the content (i.e., touched the (−)(+) switch).**

`| o | P | T | _ | i | n | _ | _ |`

3. Select the item of "in" with keys ❺ and ❻ .

`|  | i | 0 | 6 |  | n | o | P |`

4. Select i06 with key ❹ .

`|  | i | 0 | 6 | C | G | U | d |`

Lighting alternately ↕

`|  |  |  | L |  |  | 2 | 9 |`

5. Select the "CGUd" center guide switch input function with keys ❺ and ❻ .

6. Determine the "CGUd" center guide switch input function with key ❹ .

`|  | i | 0 | 6 | L |  | 2 | 9 |`

↕

`|  |  |  | H |  |  | 2 | 9 |`

7. Set the ACTIVE of the signal with keys ❺ and ❻ .
   Set the display to "L" if the operation is carried out when the signal is "Low". Set the display to "H" if the operation is carried out when the signal is "High".

`|  | i | 0 | 7 |  | n | o | P |`

⋮

`| o | P | T | _ |  |  | i | n |`

8. Determine the aforementioned function with key ❹ .

9. Finish the optional input with key ❹ .

`|  |  | E | n | d |`

10. Select the item of "End" with keys ❺ and ❻ to return to the function setting mode.

3-2. Selection of the optional output function

```
|  |  | 1 | 2 | o | P | T | _ |
```

1. Select the function No. 12 with the operating procedure of the optional input setting procedures 1 and 2.

```
| o | P | T | _ | o | U | T | _ |
```

2. Select the item of "oUT" with keys ❺ and ❻ .

```
| o |  | 1 | 5 |  | n | o | P |
```

3. Select o11/o13/o15 with key ❹ . *1

```
| o |  | 1 | 5 | C | G | U | d |
```

Lighting alternately ↕

```
|  |  |  | L |  | 3 | 3 |
```

4. Select the "CGUd" center guide switch input function with keys ❺ and ❻ .

5. Determine the "CGUd" center guide switch input function with key ❹ .

```
| o |  | 1 | 5 | L |  | 3 | 3 |
```
↕
```
|  |  |  | H |  | 3 | 3 |
```

6. Set the ACTIVE of the signal with keys ❺ and ❻ .
Set the display to "L" if the operation is carried out when the signal is "Low". Set the display to "H" if the operation is carried out when the signal is "High".

```
| o |  | 1 | 6 |  | n | o | P |
```
⋮
```
| o | P | T | _ | o | U | T | _ |
```

7. Determine the aforementioned function with key ❹ .

8. Finish the optional output with key ❹ .

```
|  |  |  | E | n | d |
```

9. Select the item of "End" with keys ❺ and ❻ to return to the function setting mode.
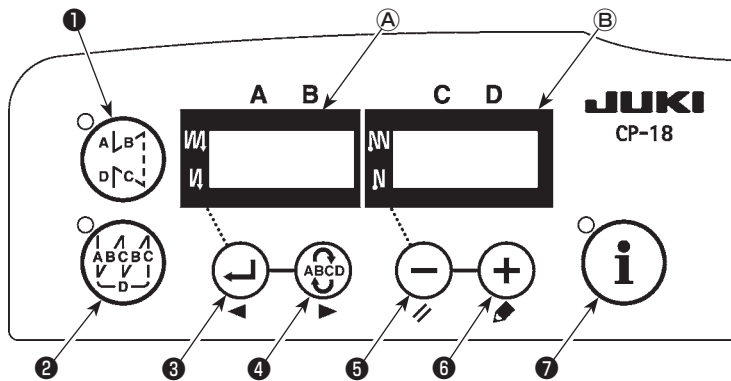
*1 Item to be selected differs with the model.
o11：PLC-2760NS*AB
o13：PLC-2760N,2760NL
o15：PLC-2760N-7

3-3. Setting the ancillary device (PLC-2760N,2760NL)

1. While holding down $\textcircled{i}$ switch ❼ , turn the power ON.
   If you keep the switch held pressed for three seconds or more, the buzzer will sound to allow you to set the functions that are available under the Service mode.

	1	4	1	F	U	n	_

2. Select the function No.141 with keys ❸ and ❹ .

F	U	n	_	_	E	n	d

3. Select the items of "_End", "UT1_", and "UT2_" with keys ❺ and ❻ .

U	T	1	_

U	T	2	_

U	1		0	*	*	*	*

↕ ↕

U	*	*	*	*	*	*	*

4. If you have selected the UT1 or UT2, "U1 0" or "U2 0" will be displayed on display unit Ⓐ . Then, specify the ancillary device setting item number with key ❸ and ❹ .

5. Select the parameter you want to set from the following with keys ❺ and ❻ and input it.

C	G	0	1

PLC center guide (Interlocked with the BT/FL)

C	G	0	2

PLC center guide (Interlocked with the BT/DL/Initialization of the FL)

C	G	0	3

PLC center guide (Interlocked with the BT/DL/FL)

C	G	0	4

PLC center guide (Interlocked with the BT)

3-4. Piping of the air

PLC-2760NS*AB
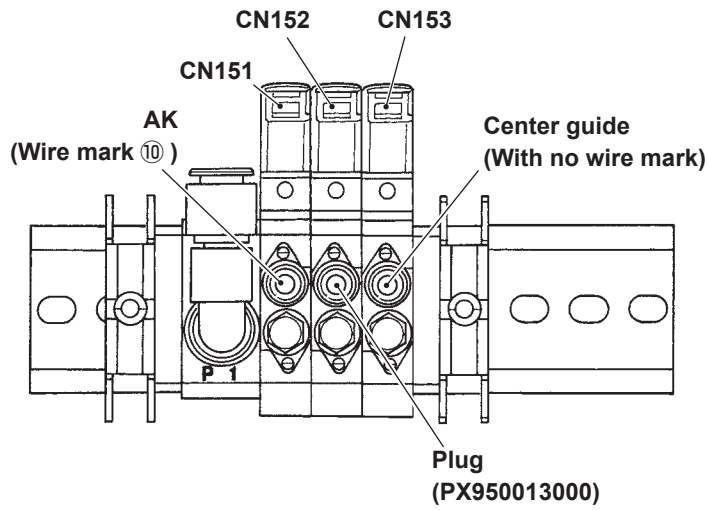
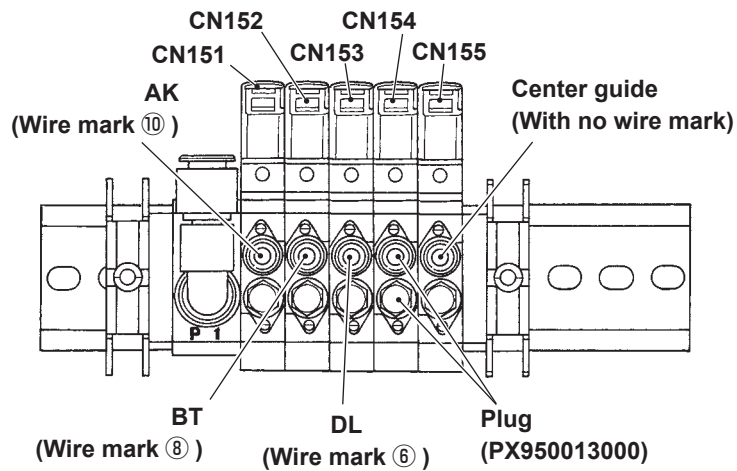CN151 · CN152 · CN153
AK (Wire mark ⑩) · Center guide (With no wire mark)
P 1
Plug (PX950013000)

Connect the air hose coming from the machine head to the position shown above while matching the number of the air hose and the number of the port.
Insert the plug into the half union of the CN152.

PLC-2760N,2760NL

CN151 · CN152 · CN153 · CN154 · CN155
AK (Wire mark ⑩) · Center guide (With no wire mark)
P 1
BT (Wire mark ⑧) · DL (Wire mark ⑥) · Plug (PX950013000)

Connect the air hose coming from the machine head to the position shown above while matching the number of the air hose and the number of the port.
Insert the plug into the half union of the CN154.