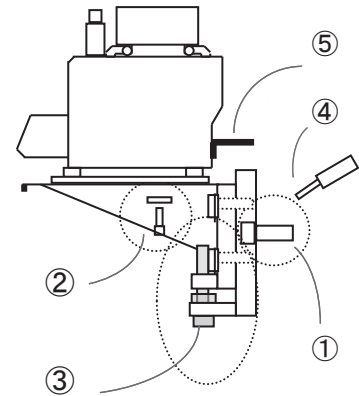


## Installation Manual

### ❖ Accessories of Installation

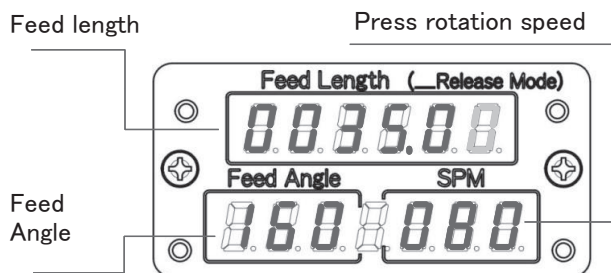
Description of good	R20
Bracket for machine	Exclusive type
Electrical cable	P6: 8M
Emergency cable	8M
Air hose	8*5: 6M
Air regulator	With air filter
Bolts	
①for the bracket	2-M14*30
②for the machine	4-M8*25
③pass line adjusting	1-M12*120
Fixture for the air regulator	2-M6*12
④Bonding	Net 4ml
Mark tube, Terminal	Assortment
Sticker	Signal(Feed/Release), Scale for pass line (on the plate)
Air connector	1-3/8B, 2-2/8B
⑤Apron plate	Exclusive type



### ❖ Setting items

#### Feed Length, Feed Angle, SPM

Changeable main screen in "Set" state.



#### Setting method of table screen


- ① **Power** Turn ON "Power switch"  
Numeric value that can be changed item or number will be blink.
- ② ← → Setting items can be changed.
- ③ + / - The value can be Changed.

If you need to continue inputting, repeat the ③, ④.

#### After setting

- ④ **Set ⇄ Run** Push "Set ⇄ Run" switch, when "Run" lamp is lit, the setting finishes.

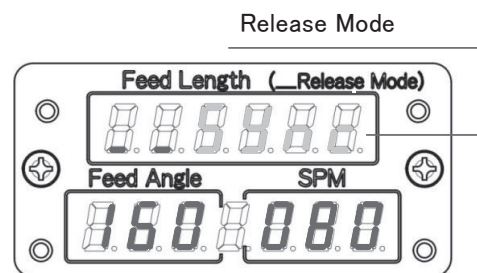
#### Synchronous operation

- ⑤ **Sync Feed**  **Sync Release** 

Press the both switches of Sync-Feed, -Release switches, then the feeder will be able to operate automatically.

#### Release Mode

"Release Mode" is not displayed in "Set" state only. To display "Release Mode", push on "Sync Release" switch in "Set" state.



#### Setting method of "Release Mode"

- ① **Power** Turn ON "Power switch"  
Numeric value that can be changed item or number will be blink.
- ② First, push on "Sync Release" switch, keep it.
- ③ + / - The value can be Changed.  
When "Sync Release" is turned off, the display returns the main screen.

❖ R20 Pass line

The pass line height is decided by combination a plate and a holder.

	<b>CAUTION</b>	The plate-center equals the feeding roll-center.
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It is necessary to tighten 4 points with a bolt to fix the holder on the plate.

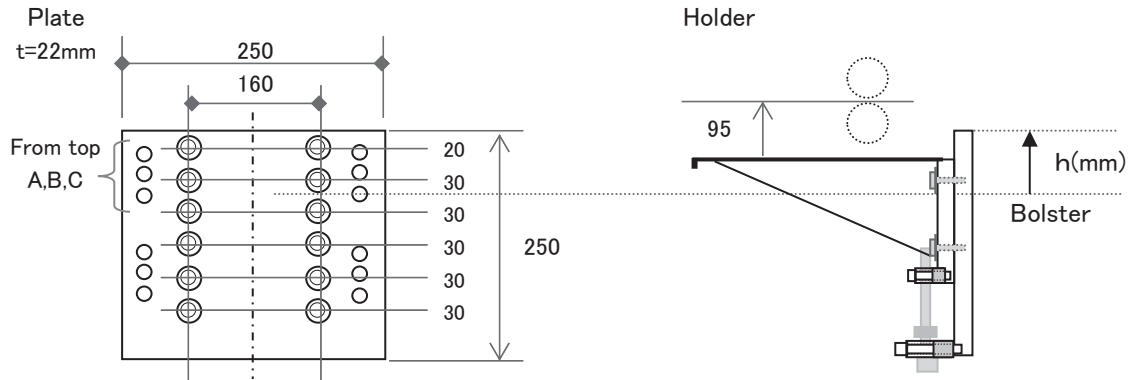
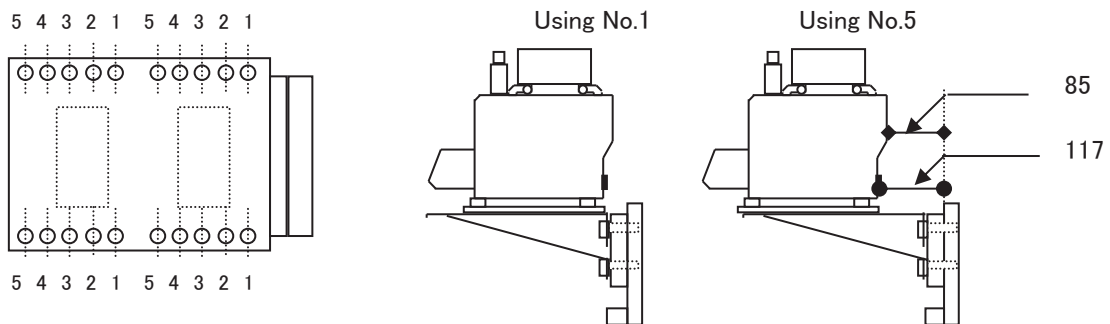


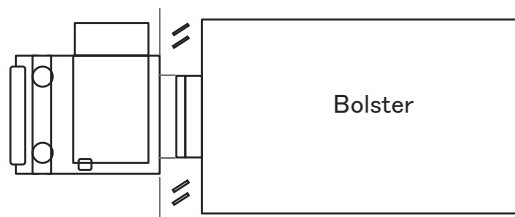
Plate height	Hole position	Pass line (mm)	Plate height	Hole position	Pass line (mm)
h=0	A	90~145	h=90	A	180~235
	B	70~125		B	160~215
	C	50~105		C	140~195
h=30	A	120~175	h=120	A	210~265
	B	100~155		B	190~245
	C	80~135		C	170~225
h=60	A	150~205	h=150	A	240~295
	B	130~185		B	220~275
	C	110~165		C	200~255

❖ Mounting position

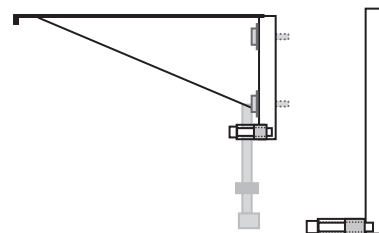
Main machine-Mounting position: 5



❖ Confirmation of balance

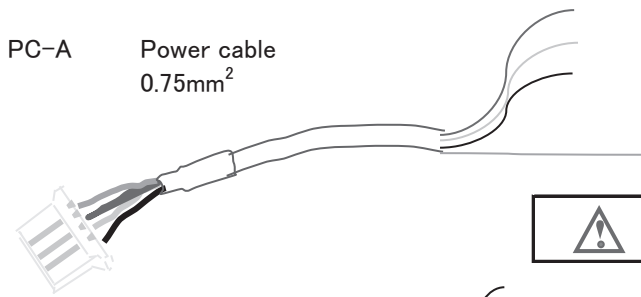


❖ Assembly drawing of the bracket



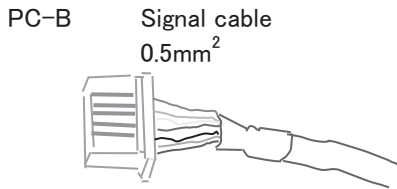
❖ Wiring

You can select which 3 phase or single phase. If it's single phase, you don't have to connect the black wire.



- Red R(200V 50/60Hz)
- White S(200V 50/60Hz)
- Black T(200V 50/60Hz)
- Not wiring when single phase
- Green/Yellow E(Earth)

	<b>DANGER</b>	Connect to the primary side
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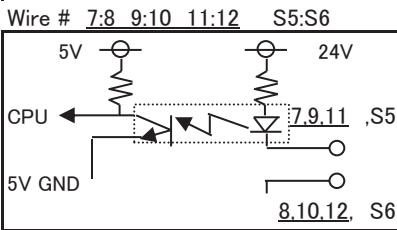
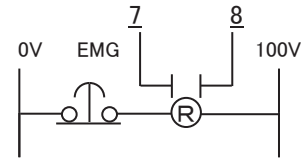


- 1 Drive stop signal output } To the stop continuous on the press circuit
- 2 Option
- 3 Work shortage sensor } To the stop continuous on the press circuit
- 4 output
- 5 Continuous stop signal } To the stop continuous on the press circuit
- 6 output

Wire #	
<u>1:2</u>	1A at AC 250V or less
<u>3:4</u>	1A at DC 30V or less
<u>5:6</u>	

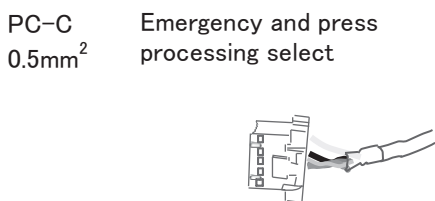
<u>7</u> Input stop of Feeder		<b>CAUTION</b> Need to short, if not using.
<u>8</u> 24V GND		

Example for circuit



Wire #	
<u>1</u>	1A at AC 250V or less
<u>S1:S2</u>	1A at DC 30V or less
<u>S3:S4</u>	

- 9 Feed input
  - 10 24V GND
  - 11 Release input
  - 12 24V GND
- Press cam signal



- S1 White:Emergency stop
  - S2 Black:Emergency stop
  - S3 Red:Emergency stop
  - S4 Green:Emergency stop
- To Emergency stop circuit

Option		<b>CAUTION</b> Need to short, if not using.
S5	Yellow:Press cont. processing	
S6	Blown:24V GND	

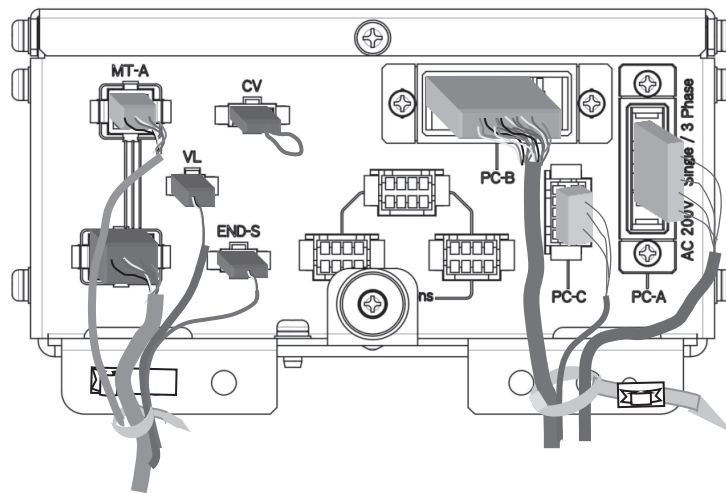
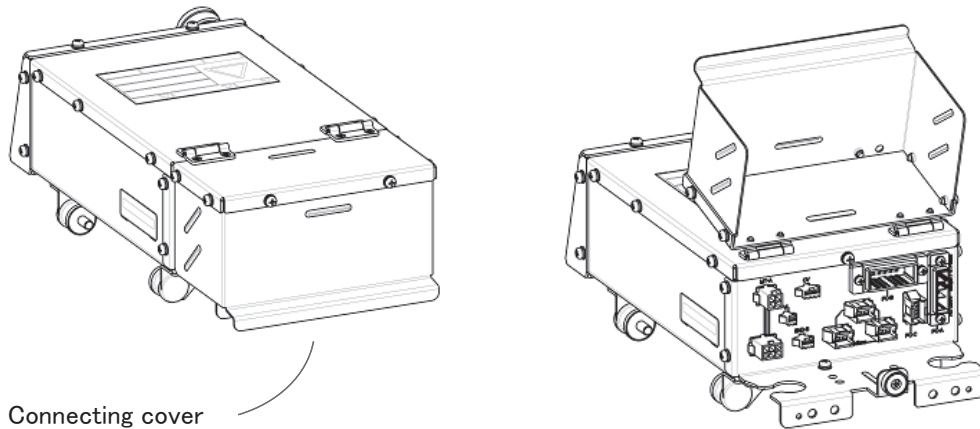
	Need to wire the release signal, Otherwise Not available in continuous feeding because of checking the movement of the press using two cam signals.
--	---

	Need to short the circuit of press processing select(S5, S6), if you don't use the circuit.
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<b>DANGER</b>	To cover each cable which is not using connection.
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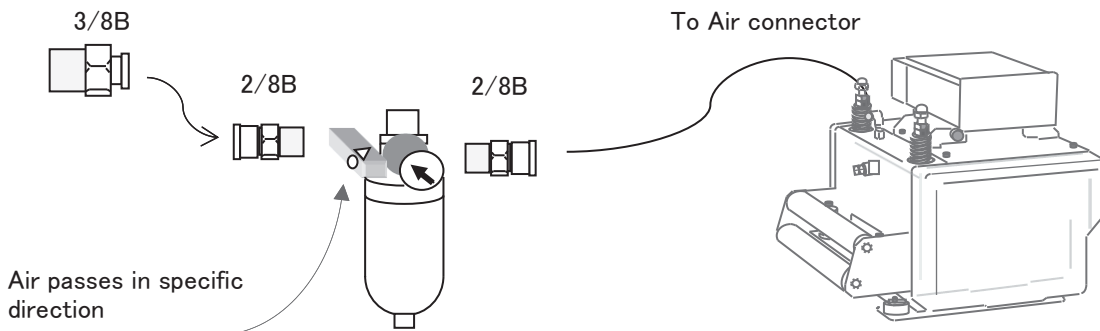
❖ Cable connecting

The receptacles of PC-A, PC-B, PC-C are placed inside the connecting cover.



	<b>DANGER</b>	Need to fix three external cables in prepared nylon band.
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❖ Air piping



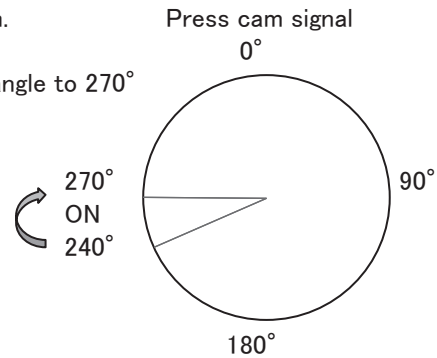
	<b>CAUTION</b>	*Approximate air pressure : 0.3~0.5 MPa *Maximum air pressure: 0.5 MPa
--	----------------	---

❖ Adjusting Press cam signals

Feed signal adjusting

Set the feed start position to feed signal OFF position.  
 When you make the feed starts on 270° ,  
 Set the ON angle of feed to 240° , and set the OFF angle to 270°

	<b>NOTE</b>
Need to set the ON of the feed signal to the feed completed angles when using option "Overrun-Function".	

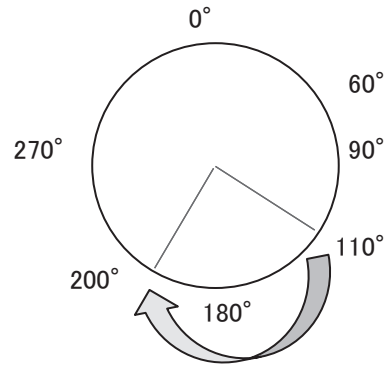


Release signal adjusting

Set the ON to the release start angle, and set the OFF to the finish.  
 When the release angle is assumed to 200° from 200° ,  
 you turn on the press cam signal in 110 degrees,  
 and turn off in 200 degrees.

The retention angles of the release ON must be 25 degrees or more.

Need to adjust the signal of the release start even if the release system is used a time setting of timer or angles.



❖ Release setting in the controller 【 ( \_ Release Mode) 】

【 ( \_ Release Mode) 】 the display is the back screen of 【 Feed Length 】.  
 Release Mode is not displayed in "Set" state only.  
 To display " Release Mode", Push on "Sync Release" switch in "Set" state.  
 To change the "Release Mode", Keep "Sync Release" switch ON, and using "+" or "-" switch,  
 You can change the release mode.

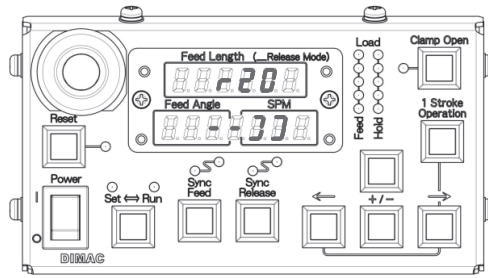
Display and contents

Feed Length ( _ Release Mode )	Contents
.. Sync	Synchronization press cam signal
... OFF	Invalid the release signal, Release off state.
... RO1 ~	Release angles setting. It can be input from 1° to 50° . the control calculates the release time from the setting SPM and the angles, the release will operate in the time range.
... RSO	Input the release start using the press cam signal.
... T01 ~	Release timer setting. It can be input from 0.001sec to 0.05 sec. Input time period, the release carry out.
... TSO	Input the release start using the press cam signal.

	<b>NOTE</b>	The release operation is delayed due to air cylinder. The delay time will vary depending in the springs pressure.
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❖ Code

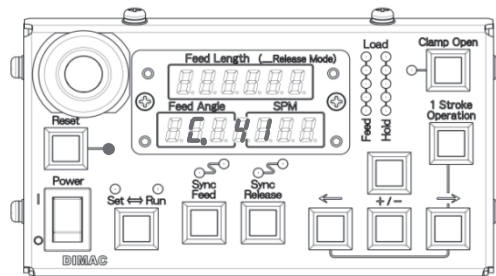
The code will display the operating state of the feeder to suit the operation state and setting disabled state.



Feed Length	Feed Angle	SPM	Contents	Method of reset
r20	-- } }		Position: Left Direction: L to R	When turning on power only, the control panel displays the program
	-.- } }		Position: Right Direction: L to R	
	{ { --		Position: Left Direction: R to L	
	{ { -.-		Position: Right Direction: R to L	
ENG	444444		Emergency stop switch ON	After releasing the Emergency stop switch, turn off the power
	444444		Emergency stop switch OFF	
STOP	0 0 0		Input stop signal during driving press	Turn on Reset switch after input stop signal release
	0 0 0		Input stop signal release	Turn on Reset switch
	1 1 1 1 1		Input stop signal	Automatic reset after clear
End	7 7 7 7 7		Work shortage sensor ON	After setting a work pieces, turn on "Reset" switch
End_2	7 7 7 7 7		Another work shortage sensor ON	
End	7 7 7 7 7		Work shortage sensor release	Turning off "Sync Feed", the work shortage sensor will disabled.
End_2	7 7 7 7 7		Another work shortage sensor release	
I - F	66 166 1		Interfere releasing	Turn on "Reset" switch
	662662		Input feed signal during feeding	Turn on "Sync Feed" and "Sync Release" after turn on "Reset" switch
	663663		Input feed signal during releasing	
	664664		Input release signal during feeding	
0_run	666666		Overrun	

❖ Caution display

This caution displays have a possibility which the feeder is reset. These displays are as the follows, Reset : Blinking. Feed Angle SPM : {, Number



Code	Number	State / Content	Note
{	40	Open phase	Confirmation of the power supply
{	41	Low voltage detection	Checking the voltage
{	50 - 1	Motor connection anomaly	Contact failure
{	50 - 2		
{	50 - 3	Malfunction of Rotation sensor	Setting mistake