

# I.C.T Desktop Pick and Place Machine Manual



Please read the operation manual carefully before using the machine!

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Chapter 1 Structure of N6

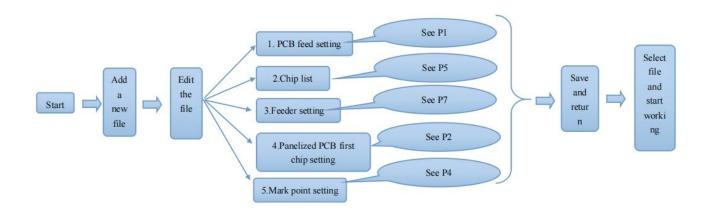


Each part mentioned above can be disassembled and tested. Please find more details on P20.

- (1): Placement head (see P)
- (2): Nozzle (see P)
- (3): Rails (see P)
- $(\overline{4})$ : Vibration feeder
- (5): On/Off button
- 6: Conveyor port(see P)
- (7): Multi-hole positioning board(see P)
- (8): Feed box (see P)
- (9): Peel box (see P)
- (1): Emergency button
- (1): Power switch
- 12: Rack shelf (see P)
- (13): Acrylic cover
- (14): Foot Mounts
- (15): Fixed support



### Procedure for making a programming file



Note: The basic procedure of making a programming file for manual programming or direct PCB file is similar, but there are two different parts: chip list and mark point setting. Please find the detailed operation steps of the differences on relative page.

Edit on the Operation Interface

I. Edit on the Interface

See below Fig.: Edit Interface

cConstinui) Peeder eeritage		
2 Beed anttings	Dig list	
tray stars Derner B. 104 to B. Barnard	Faster Borris Base Tube Postgrint T F Scinition Dity 5	
ters man Ottact for The Hold Incoment	(2014) 1 1 10 100 (200.01)(01.00 0.0)(0.0)	P.Beldi
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unitized WE direct and a setue		
Asso: 12 Olarse 12		
Bieter Top 1 100 2 1100		1.000
Left Tap - AND - AND - AND - AND		
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PCB state in PCB and a state should		- delife
Create panelized list		
X Y Rotation Sig- Poston		-
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at least drivers as fill the fill the stand		
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Sell Line		
X V Publich Tan		
Marij 200 CP 76 50 Mgr		
Mariz 345.05(70.5), Mgr		
	4	



### **1.PCB Feeding Setting**

C Tray fixed	Detect X:	334.93 🛨	Forward
• Rail Once	Detect Y:	136.44 🗄	Backward
🕻 Rail Multi 🔽	Eject front	Align	Feed

Function:Used to confirm the feeding place, first edit item in manual program

Introduction of function keys:

(1) Tray Fixation:Once selected tray fixation, the setting items of board feeding will be closed. We only need use the positioning column to fix the board.

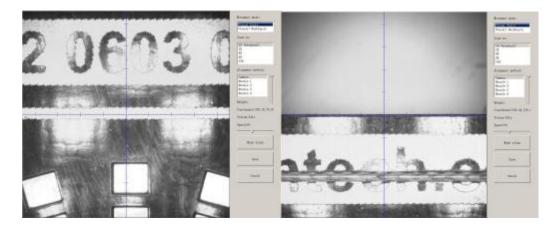
(2) One-offrail feed:First need ensure there are rails for your machine, then select one-offrail feed, the setting items will be open corresponding.

Operation Step:First should adjust the width of the rail to ensure the PCB can move smoothly Adjust the position of the board in rail via clicking items" Rail forward" and "Rail backward".

backward".

<sup>(2)</sup> Click "Position Align" and into below interface(See fig.2), then adjust the position of

camera until to the limited place by clicking the image(See fig.3).Click "Save" item to save the setting, return to the main page to finish the setting.



Q



Fig.3

### (3) Multiple rail feed:

(4) Eject PCB front-side:Once selected this item, the PCB will eject at front side when finish mounting. If don't select, the PCB will eject at back side.



### 2.Setting Panelized PCB & first chip

### ( manual is the same as automatic download)

0 ± Alig		
1 47 47 to		
N DATE		
81.52 🛨 Alig		
detect		
Position		
lan:		

Function: This is mainly to determine the first component on single or panelized PCB of manual programmed or imported file. The principle is to collect and calculate the data of each board's

relative spacing, in order to achieve the effect of the actual placing.

#### Operation introduction

(1) Single PCB: Only need to enter "1" in the row and column, some other useless function will turn grey. The "left bottom" is functional, which means the first PCB. Then you can press "align" to go to the screen of vision and get the coordinate of first component, see image 2-2.



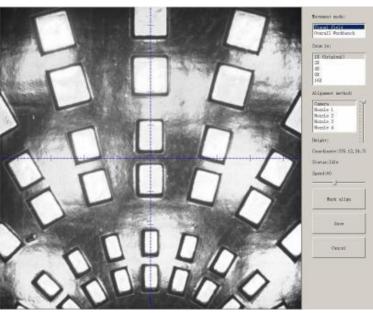


Fig.2-2

After saving the coordinate, the screen will automatically turn back to "PCB information". Click "Create panelized list" to get the information of "Panel 1". Now we've finished setting of first

component of PCB.

(2) Panelized PCB: the sequence is same to single PCB, but please pay some attention to several points below.

① The row and column is determined by the positioning of PCB on working area. The direction along the rails is the column. Enter data in the row and column.

About the data collection of "left bottom", "left top" and "right top", we should take the "left bottom" as the basic, and then go to set "left top" and "right top". Once all the data is collected, the machine can calculate and process the information of panelized PCB. Please refer to the data collecting method of each position information as following:

. The data of "left bottom" is collected according to first component in programming file.

Press "align" find the left bottom panel which is nearest to the feeding position, after saving the data, it will return to the "PCB information" automatically.

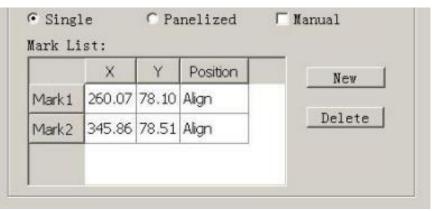
. The data of "left top" is collected according to component (its position is same to that on "left bottom"). Press "align" find the left top panel which is furthest to the feeding position, after

saving the data, it will return to the "PCB information" automatically.

. The data of "right top" is collected according to component (its position is same to that on "left bottom"). Press "align" find the right top panel which is furthest to the feeding position, after saving the data, it will return to the "PCB information" automatically.

After setup, click "create panelized list", the data will be generated accordingly in the blank. PCB angle correction Bad board detection

#### 3. PCB mark point setting





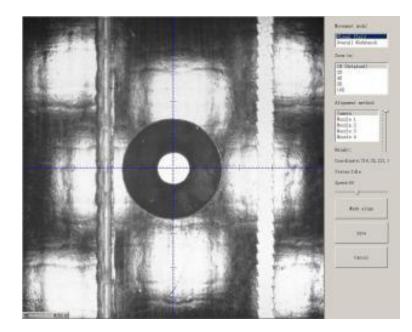
Function: After completing setup of the mark points, with which the machine can locate the position of PCB and identify the set up mark points, so that the next step can be followed

Operation method:

(1) Mark point on single PCB: this mainly applies on single PCB or a whole board that consists of a few boards (take them as a single board ).General we need to set 2-3 mark points.

(2) Panelized PCB: this mainly applies on multiple PCB(we need to set mark points on each PCB )

(3) Manual alignment: if there is no mark point on PCB, you can use some positioning holes or some other referential points as subsidies to locate the PCB







Import coordinate: according to the PCB schematic, we get the coordinate of mark and write down manually.

. Manual programming: when it's in Manual Programming status, the function "Alignment" of Mark will be effective. Click on it, the camera will go and collect the coordinate of mark

(see image 3-2), save it and go back. (Note: if the mark point is far away, please use Overall movement to find it)

. No mark exists: Generally we will choose a component that is far away from the first component as a mark, which will make placement effect better.

(4) Add mark point: the function of adding mark point

Delete mark point: the function of deleting mark point can be used when there is needless mark point or error point.

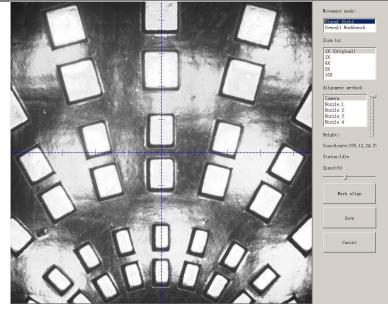
### 4. Component list settings

	Feeder	Nozzle	Name	Value	Footprint	X	Y	Rotation	Skip	Position	
hipl	1	1		1 OK	0805	256.92	101.08	0.0	No	Align	🖾 Manual
											File
											Import
											Nev
											Delete
											Up
											Down

Function: to display the sequence, footprint and other information of components. There are two ways to add these information: manual programming and import mounting file. Operation:

(1) Manual programming: firstly, check the box of manual programming. There is a sample line of the first component, please modify this line firstly.







one component has been found

Find and confirm one component's coordinate by using the function of "Movement Mode"-Click to move (Visual field/Overall Workbench).Once clicked the "Save" item, the interface will automatic back to main page, then input the corresponding values (Designator refer to the location, Specification refer to the value of resistance, Footprint refer to the normal package info, I.e. 0603, 0805, 1206, Etc. Angle value should be set according to the required direction on the PCB and polarity , horizontal direction (0 or 180 degree), vertical direction (90 or -90 degree). the value should be integer. The first component have been completely created after set all above values. The next step is click "New" item and will popup one line (completely copy the previous line), then click "Align" to find and confirm second component (same operation as before)

### (2) Import PCB BOM File

First generate the coordinates from PCB diagram and put the PCB file on the USB Flash Disk,then insert it to the machine(There are many kinds of PCB designer software,the only request is can generate the coordinates from them,file format(.csv)-support use Excel to edit

Remove tick mark before the item" Manual Program" and then click "Import PCB BOM File", will popup one small dialog, select the required PCB file and then click "Save" item, all data will be automatic imported to Chip List .(Turn to the "Feeder configuration" interface to do next operation).See fig.4-2



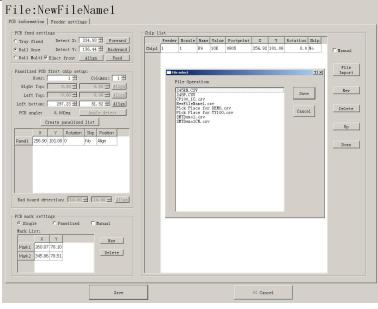


Fig.4-2

### 5. Feeder configuration

eft feeders		Right feeders
Chip Spec.		Chip Spec.
Feeder48		Feeder19
Feeder47	V [Apply]	Feeder18
Feeder#6	Feeder no. :	Feeder17
Feeder45	Nozzle information Feed-box information	Feeder16
Feeder44		Feeder15
Feeder43	□ Nozzle 1 Align Height test Pick test Peel strength: 10 🚔	Feeder14
Feeder42	🔽 Nozzle 2 Align Height test Pick test Feeding rate: 2 🛣	Feeder13
Feeder41	Feed strength: 10 =	Feeder12
Feeder40	Tradition in the second s	Feeder11
Feeder39	Wozzle 4 Align Height test Pick test	Feeder10
eeder38		Feeder9
feeder37	Feeder basic information	Feeder8
Feeder36		Feeder7
Feeder35	Pick X: 0.00 Pick height: 0.0 Rows: 5 1	Feeder6
Feeder34	Pick Y: 0.00 🚔 Pick delay: 0 🚔 Columns: 5 🛬	Feeder5
eeder33	Align Paist height: 0.0 = Right Top X: 10.00 =	Feeder4
Feeder32		Feeder3
Feeder31	Fick angle: 0.0 Faist delay: 0 F	Feeder2
Feeder30	Footprint: 0402 💌 🗌 Vacuum dete 📃 Align	Feeder1 10K
Feeder29	Nove Speed: 10 💌 Vacuum Value: -10 🚔 Start X: 1 📩	
leeder28	Vision No Action Y Skip Start 1 ==	Special feeder
feeder27	Alignment: Y: Y: Y:	Chip Spec
Feeder26		Feeder58
Feeder25	Feeder exchange: Feeder 1 -	Feeder57
Feeder24	reeder exchange: [reeder 1 1]	Feeder56
leeder23		Feeder55
Feeder22		Feeder54
Feeder21		Feeder53
Feeder20	Allocate Chip to Feeder Assign feeder and nozzle Footprint library	Feeder52
		Feeder51
		Feeder50
		Feeder#9

Functions:All components' configurations will be set here for every working file,I.e.(Nozzle selection,Feeder selection,Pick up position,Correction setting and other parameters)

(1) Feeders Arrangement:Left Feeders(Feeder20-48),Right Feeders(Feeder1-19),Special Feeders(Feeder49-58).Above feeders'setting is under the ideal situation.According to the Required Tape's width from customers, the quantities maybe be cut down.For example, if there are a lot of components' information under the "Chip List" item, choose the feeder number and you will find the drop-down symbol, will display all components' specifications by click it.Select one specification and one less in drop-down list, can do same operation in every feeder.



(2) Feeder Configuration:Select one feeder,tick the item"Apply",all configurations will be unlocked for this feeder,then can do amendment.Total have five items:Nozzle information,Feed-box information,Feeder basic information,Tray feeder information,Feeder exchange.One item will be always locked for Feed-box information and Tray feeder information according to the differences of components.Operation sequence: Feed-box information(Tray feeder information)—Feeder basic information—Nozzle information—Feeder exchange(used if placed wrong tape).

Feed-box information setting

Peel strength:	10 🚔
Feeding rate:	2 🛨
Feed strength:	10 芸
	Feed test

Function:Adjust the value for feed and peel box

Peel Strength:Support do adjustment according to different components' required strength, default value 100

Feed rate:Adjust the feed & peel distance by changing the value

Feed strength:Adjust the feed strength by changing the value,default value 60

Feed test:After finishing above steps, can click this item to test the feed status



### Tray feeder information

Rows:	5 🚍
Columns:	5 🛨
Right Top X:	10.00 🗄
Right Top Y:	10.00 🚊
	Align
Start X:	1 💼
Start Y:	1 💌

Function:Use to set the components' information from tray and tube packages,complete picking up operation for special feeders by changing the values

### Feeder basic information

Feeder basic information		Novement mode: Visual field Overall Workbench
Pick X: 0.00 🛨 Pick height: 0.0 🗧		Zoom in: 1X (Original) 2X 4X
Pick Y: 0.00 🛨 Pick delay: 0 🚔		6X 16X Alignment method:
Align Paist height: 0.0 🕂	-	Norrle 1 Norrle 2 Norrle 3 Norrle 4
Pick Angle: 0.0 + Paist delay: 0 +		Height: Coordinate:413.68,100.1 Status:Idle
Footprint: 0402 🔽 🗖 Vacuum dete		Speed:60
Move Speed: 10 💌 Vacuum Value: -10 🚎		Same
Vision No Action V Skip		Cancel

Fig.5-1 Fig.5-2

1 Pick position X/Y:First have to lock the position of component on the feeder(See fig.5-2),once saved the modification, the XY date will automatically change to the ones after

alignment.

2 Pickup Angle: The initial default angle is 90 degrees, support to do modifying the value in order to change the mounting angels for wholly feeder if needed.

3 Footprint:Select corresponding footprint, when use the function" Vision Alignment", will refer to the values in date base.

4 Placement speed: Control the placement speed for the feeder by adjust the speed values.



5 Vision Alignment:Choose corresponding alignment method under this item. 6 Pick height:Control the pick height by dragging the sideward slider.

Placement height:Set the value according to the component's actual thickness.

7 Placement/Pick delay:set a little value or 0 both ok.

8 Total have two detection methods, Vacuum Detection and Vision Detection.

Vacuum Detection:Once set one vacuum value which help judge if qualified or not before placement.Once the actual vacuum won't reach this range, the machine will drop away this components and re-pick one.

9 Pet-name ruby chose this material after skip pasted on the station all the material will be skipped, generally will not choose.

Skip:Once select this item, will skip all placement for this feeder.

### 6. Nozzle Information

ozzle inform			
🗆 Nozzle 1	Align	_Height test	Pick test
🗆 Nozzle 2	Align	Height test	Pick test
🗆 Nozzle 3 🔤	Align	Height test	Pick test
Nozzle 4	Align	Height test	Pick test

Function:Select corresponding nozzles(one or more than one all acceptable)according to the components and the nozzle have set on the machine, then the machine will automatic assign to each feeder in order to meet the requirements pf single head work or multi heads working together. Also have detect functions on this item.

Position Align:The nozzle will align to the component's upside on corresponding feeders when click this item

Height Test:After clicking this item, the nozzle will go down and check whether the pick height is ok. Support do adjustment of pick height on feeder information item if needed.

Pick test:After clicking this item, the corresponding nozzle will pick one component and check whether pick position is ok. Support do adjustment of pick position on feeder information item if needed.

After finish setting of all above feeders information, then click "assign feeder and nozzle to Chip list", then chip list will automatic to be changed correspondingly.



Skip	Fee	der Nozzle	Name	Value	Footprint	x	¥	Rotation	Skip	
el1 No	1 2	1	81	R	0402	29.42	20.32	0.0	No	
	2 1	2	C1	R	0603	32.72	20,32	0.0	No	
	3 3	3	01	R	0805	36.53	20.32	0.0	No	
	4 2	1	82	R	0402	29.18	22.09	15.0	No	and the second se
	5 1	2	C2	R	0603	32.37	22.95	15.0	No	
	6 3	3	02	R	0805	36.05	23.94	15.0	No	
	7 2	1	83	R	0402	28.50	23.75	30.0	No	
	8 1	2	C3	R	0603	31.36	25.40	30.0	No	
	9 3	з	D3	R	0805	34.66	27.31	30.0	No	
	10 2	1	84	R	0402	27.41	25.17	45.0	No	
	11 1	2	C4	R	0603	29.74	27.50	45.0	No	
	12 3	3	D4	R	0805	32.44	30.20	45.0	No	
	13 2	1	85	R	0402	25.99	26.26	60.0	No	
	14 1	2	C5	R	0603	27.64	29,12	60.0	No	
	15 3	3	05	R	0805	29.54	32.42	60.0	No	
	16 2	1	86	R	0402	24.33	26.94	75.0	No	
	17 1	2	C6	R	0603	25.19	30.13	75.0	No	
	18 3	3	D6	R	0805	26.17	33,81	75.0	No	
	19 2	1	87	R	0402	22.56	27.18	90.0	No	
	- tool	Savi			~~	Vi	sion	Align		
										Pressure1: 0% Pressure2:
										Pressure3: 0% Pressure4:
										Current speed (60%):
										Continued Continued

### **Chapter 2 File Mounting**

1.Method to mount one file:

First select one file, click"mount", then you will enter into one mounting page, above picture is an example of one file in mounting.

(1) On the top-left corner shows mounting process, chip list---by the variation of blue line, you can track process of mounting constantly.

(2) On the bottom-left corner shows some feedback during mounting process.

(3) One the top-right corner shows the status of picking and picking alignment

(4) On the bottom-right corner shows some control information

Air pressure of 4 nozzles

15

Placement speed, can be changed by manual during mounting

Non-stop mount, this is used in one-stop smt production line, add conveyors in front and behind,

Auto-eject PCB once finished, when select this option, after finished mounting task, PCB will eject its working area automatically

Another control information, Continuous/Step/Pause/Eject PCB front-side manually/Stop Continuous, The machine will obey its order and work constantly

Step, The machine will work one single step

Pause, The machine will stop its work instantly

Eject PCB front-side manually, In order to catch the PCB, after PCB assembly, click this

option, PCB will eject from its feeding position. Kindly notice: After pause the machine then you can carry out this order.

Stop, before click this option, you need to click "pause" first



### Chapter 3 Manual Test

eft feeders		Placement head	Right feeders
Feed-box48 Feed-box47 Feed-box45 Feed-box45 Feed-box43 Feed-box42 Feed-box42 Feed-box41 Feed-box40 Feed-box39	Peel-box48 Peel-box46 Peel-box45 Peel-box45 Peel-box45 Peel-box43 Peel-box42 Peel-box42 Peel-box40 Peel-box39	Norzło     Elow     Suck     Pressurel:1       Norzło     Tum left     Tum right     Pressure2:1       Norzło     Dom     Pressure3:3       I     Dam     Pressure3:3       I     Photograph     Pressure3:3	Feed-box13 Feel-box14 Feed-box13 Feel-box14 Feed-box13 Feel-box12 Feed-box12 Feel-box12 Feed-box11 Feel-box10 Feed-box10 Feel-box10
Feed-box38 Feed-box37 Feed-box35 Feed-box35 Feed-box33 Feed-box32 Feed-box31 Feed-box30 Feed-box29 Feed-box28	Peel-box38 Peel-box36 Peel-box35 Peel-box35 Peel-box33 Peel-box32 Peel-box31 Peel-box30 Peel-box29 Peel-box28	Rails control Host control   Forward Start button: off XY status: idle   Rails status: busy T Vibration feeder	-
Feed-box27 Feed-box25 Feed-box25 Feed-box24 Feed-box22 Feed-box22 Feed-box21 Feed-box20	Peel-box27 Peel-box26 Peel-box25 Peel-box24 Peel-box23 Peel-box22 Peel-box21 Peel-box20	Backward     Flash lamp     Feed command     X Y recove       Speed 10%     •     Photograph     Buzzer     X7 Initiali	
	1.000 03400		

Function: Used for testing the basic functions, connection between software and hardware is the mainly function, details about testing as below:

### 1. Placement head

16

Nozzle 1	Blow	Suck	Pressure1:1	
Nozzle 2 Nozzle 3	Turn left	Turn right	Pressure2:1	
Nozzle 4	Down		Pressure3:3	Head move
4 1	Flash lamp	Photograph	Pressure4:3	

Choose nozzle 1, nozzle 2, nozzle 3, nozzle 4 to test separately

Blow, after click this option, air will blow-off from selected nozzle

Suck, after click this option, suction action will appear from selected nozzle

Turn left& Turn right, selected nozzles will turn

Down, after click this option, selected nozzle will descend slowly

Down Looking Camera light, after click this option, Led light besides the camera will turn on

Down Looking Camera Photograph, after click this option will take a picture

Air pressure 1, 2, 3, 4, Based on the testing of nozzles, you can see pressure value of each nozzle.



Head move, after click this option, you will enter into"head move"page, click to move (Overall Workbench) you can test to move in a wide range.

### 2. Rail control



Function, test rail PCB feeding, forward PCB feeding, backward PCB feeding and feeding speed

### 3. Hose control

Start but	ton: off XY	status: idle
Rails status	: busy Г	ibration feeder
Flash lamp	Feed command	X Y recover
Photograph	Buzzer	XY Initialize

Function, test each function key

Start button status, on the left side of machine, it has one start button, press this button the status will change

Vibration feeder, after select this option, vibration tray will vibrate

Up looking camera light, after click the light will turn on

Up Looking Camera Photograph, after click this option will take a picture

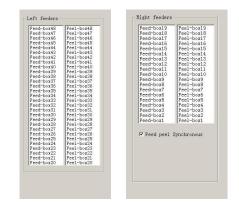
Send PCB feeding command, after click this option, PCB will feed forward

Buzzer, after click this option some sound will appear

X Y step out recover&X Y Initialize, after click this, machine will recover to its original position and coordinates in system will initialize.

### 4. Feeder test





Function, test each feeder's matching and feed box & peel box's function. First, select" Feed-box and peel-box linkage", then test function of feed box and peel box.

(1) click any feeder randomly, feed box and peel box will appear corresponding actions



### **Chapter 4 Factory settings**

Function, this part arm at machine' global parameter settings, any modified parameter will influence all mounting files, when modify this part please consider seriously. Especially the last page system settings, we suggest after using a period of time or under the guidance of our engineers then change its parameter. (Notice, before our machines leave factory, all parameter already be set and no need to change). This user manual just introduce all setting functions briefly, more details about parameter modification please refer to comments from our engineers.

	ration	1 10		C Sys	tem zetu	кI —		
eeder	config	urati	on Fee	d-tes :	anflgura	tion   Pe	tes configuration   System configuration	
	х		Position				4	
Feeder 1			Citrit to align		1	Cid.ta test		
Penin/2			Cikit to align		2	Citri ta ta t		
Peerler3			Cikis to align		1	CR0.73 Tel:		
Peederl	420.83	123.M	CB3 to align	•	4	cidi.ta test		
Peeder5	411.12	141.07	CB3 to align	×	5	Chih ta test		Seve
feedert-	40.85	124.44	Club to align	4	6	Chih Ia tesi		
Peeder?			Citch to align		,	Clob.to test		Config p
Feedorth	411.73	249.43	Citch to align	0	£	Clob.to test		
Feedoriv	411.32	386.75	Citch to align	ġ.	5	Oid-to test	Confirm parament 1 (2)	Modify Fee
Feeder20	411.41	205.69	Citch to align	13	90	Cid.ta test	House input password:	
Peedin11	410.85	NG3	Cikit to align	н.	11	Cid.ta test		
Feeder 12	430.79	324.22	Cikit to align	12	32	Citri ta tant	III Curci	Terstim ups
Peeder 13	411.27	337.52	Cikik to align	13	12	clidi ta test		
Peopler )4	42.72	381.30	Cikil to align	14	24	ckó ta test		Chinese
Peeder 15	410.72	367.41	CB-3 to adqu	11	28	Chih ta test		
Peeder35	411.12	371.73	Citch to adapt	15	26	Clob.tu test		Current warm
Feeder17	411.12	291.80	Click to align	17	17	Cick Isa Test		90.9.4.0
Feeder20	425.00	251.00	Old to align	13	38	Old-to test		
Feedbr29	409.80	264.00	Citch to align	12	29	Octo heat		
Feedbratt	25.01	23 22	Citch to align	29	20	Cid.ta test		
Pender21	24.96	36.77	Citch to align	21	21	Cid-ta test		
Penies22	24.03	\$0.43	Cikik to align	22	22	cidi ta test		
Peeder23	25.03	63.83	CBA 10 Mign	22	23	clidi ra test		
Peeder24	21.11	77.27	cikil to align	29	24	cké za test		
Peeder25	22.17	80.83	CBA to align	25	28	Chih Ia lesi		
Peeder35	24.88	304.44	Cleb to align	28	26	Clob.Ita Test		

As pic show, function description of button on right side

Save configuration: click it for saving after modify the parameters

Modify password: click it, put into the password, then finish change the fourth page which is also the System interface.

Le oper	ration	1 10	nuel tes	t Syst	em setu	P				
Feeder	confi	gurat.	on   Fee	d-tes c	nflgari	tion   Pe	-bez configuration   System configuration			
	x		Position						-	
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Pender3			CB/3 to align		1	Cid.ta test				
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Feeder17			Click to align		37	Cleb to test				
Feedor 30			Old to align		38	Sel el 46				
Fee30179			Citch to align		29	Clob to heat				
Feedbr30			Citch to align		20	Cid.ta test				
Pender21			Citch to align		21	Cid-ta test				
Penies22			Citrit to align		22	Cité its test				
Presiden23			CB-3 to align		23	clidina test				
Pender24	21.11	77.27	CB-3 to align	25	24	ckó ta test				
			Child to allow		23	Chih I a test				

Set up feeder ID: click and show as pic above. This is for modifying of feed-box ID. Feed-box is different from peel-box, feed-box ID is saved in feed-box itself . E.g.: Feeder of feed-box 1, it will be identified feed-box 1 no matter which port matched. So we will mark it. New feed-box default ID are all No.50, it need you to change them here by yourselves.

Version upgrade: After receiving our new version file, you can upload it with clicking "version upgrade" to finish.

ENGLISH: Change to the English version.

### 1. Feeder configuration



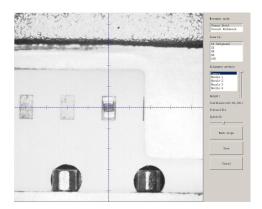
		nuel tes				
eeder					-tes configuration   System configuration	
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Feeder1		Citra to align	1	Cick to test		
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Pender3	-	Citra to algo	4	cité ra test		
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Peeder 35		Click to align	36	Clab In Leni		10.9.4.0
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Feedbr2D	-	Cick to align	29	Cid-ta hat		
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Penin/22		Citol to align	21	Cito to test		
Pender23	-	Citra to algo	22	cid ra test		
Peeder23	-					
		CB3 to align	24	Chih ta test		

As figure show: parameters setting for all feeders.

First list on left side is feeder No.

X,Y parameters is setting the feeder's pick position.

Click button of "click of align" in the list of "position", then go into interface as below,



Save after setting well the pick position of the feeder. Same way as in the file. "Feed-box" setting

It is used to set the feed-box ID. E.g., if you insert the feed-box 2 in the port 1, then it need to set the feed-box ID to be 2

"Peel Box"setting

"Peel box" is different from "Feed box", the ID for peel box is corresponding to the port. For example, no matter which "Peel box" you connect, the ID always be No.1.

Above setting can help set the serial number of the stack in power supply port on the machine, See below fig.





For example, the default port ID for Stack 33 is 33, if the port 33 is broken and want to change to port 34, can set in this item "Feed test"

Once clicked this item, then the machine will start Feed test, feed one component and help check whether the feed is normal

### 2. Feed setting

		. Inc.		Gamation	Prei-ter configuration Sentes configuration	
	Feeding rate				I the ter comparison [ spece comparison ]	
read-boal				Ock to calibrate		
Peeblan2	•	50	Odd to be t	Gick to calibrate		
Peed-box3		50	Cliphita taut	Gick to calibrate		
Feedbook		50	cide ta tand	thick to calibrate		
Peedbord		50	Chô Ta Leuz	dux to calle site		84
Peedbord	4	80	Chila Lesi	Child to calify the		
Feedbox7		50	Claim	Ock to collarate		Confi
Feedbord	•	50	Odd to best	Ock to calibrate		
Feedborg	•	50	Odd to bed	Ock to calibrate		
Feedbox18	•	50	Old-Ita belt	Ock to calibrate		Bodify
Pand-box11		50	Old-to bed	Ock to calibrate		
Peed-box12		50	Old-ta tast	Ock to calibrate		Terstus
Peedbool3	4	50	Clip.ta test	Chick to calibrate		
Peedbox14	2	50	chá za ted	this to cally she		04
Peedbox15	1	50	Clab.ta test	Chill to calify she		-
Peedbox15	1	50	Clair test	Child to collarate		Current
Feedbox17	4	50	Odd to last	Ock to ostbrate		50.5
Feedboold	4	50	Odd ka task	Ock to calibrate		
Feedbox18	•	50	Old-to-bed	Cick to calibrate		
Feedboord	•	90	Old-to test	Ock to calibrate		
Peed-box21	•	90	Old-Its test	Ock to calibrate		
Peniliko-22	•	50	Od-74 feet	Gick to calibrate		
Peed box23	•	50	Clab.ta ted	this to cally also		
Peedbor24	•	50	Clab.ta test	chik to calify she		
Peedbox25	4	50	Child Las	Chill to calify the		
Peed-box25	4	50	Gélalesi	Cick to collarate		

Function:Used to setting values for all stacks

Feed rate:The distance between two components, default value 4mm, for 0402, should set 2mm. Strength Setting: Motor torque of feed for the stack (Normally no need to change).

Test:The machine will do feed test separate after clicking this item, peel box won't work during above test

Alignment:Click peel box, the motor idling several rings to do the initial position of the calibration. Used if there are problems during peel operation, then can click this item to repair. Normally no need to click.

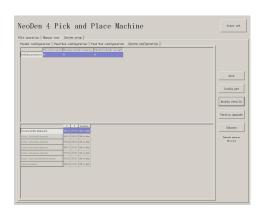
### 3. Peel Configuration

					Peel-tes configuration System configuration	
	Feedingrate	Srength	Test	Cellecton	4	
Feed-boal	4	90	Cid.ta test	Gick to calibrate		
Peeblos2	•	50	Odd /s test	Gick to calibrate		
Peed-box3		50	Cliphica hast	Octo-calibrate		
Peedboot		50	cide to a text	dick to calibrate		
Peedbord	4	50	chó ta test	dix to calle site		Seve
Peedbord		80	Chila Lesi	Club to call rule		
Feedbox7		50	Claim	Ock to collarate		Config
Feedbord		50	Odd to test	Ock to calibrate		
Feedborg		50	Odd to test	Ock to calibrate		
Feedbox18		50	Odd to had	Ock to calibrate		Modify Per
Peed-box11		50	Old-to bed	Ock to calibrate		
Peed-box12		90	Cid.ta test	Gick to calibrate		Terstim up
Peedbox13		50	Clipita tast	dick to calibrate		
Peedbox14	2	50	cide rated	dix to cally she		Chines
Peedbox15		50	Clab.ta test	this to call rate		
Peedboxis		10	Clair test	Club to calibrate		Currant. nur
Feed-box17	4	50	Cide La Last	Ock to ostbrate		10.9.4.0
Feedboold		50	Odi ka tast	Ock to calibrate		
Feedbox18		50	Odd to bed	Ock to calibrate		
Feedboord		90	Odd to bed	Ock to calibrate		
Peebloizi		50	Old-Its test	Ock to calibrate		
Peniliku-22		50	Cid /s test	Gick to calibrate		
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Function:Peel configuration as above figure show, used to set the values for all peel boxes Feed rate:Similar meaning in Feed box part, mean length of rotation each time Strength:Torque setting of Peel motor(Plastic tape will be difficult strip away in the case of being affected with damp, can adjust bigger values of motor torque here) Test:The machine will do peel test separate after clicking this item, feed box won't work during above test

#### 4. System setting





Function: it is mainly for correction the position of suction nozzle.(Notice: In case change by mistake, we have locked it by password. It can be changed by clicking the button of Password change and then insert password. Strongly recommend operating it under our engineer's guidance).

(1) Default parameters 1 setting:

Default speed: placement head movement speed under overall situation, priority is not as fast as speed set in stacks.

Vibration feeder frequency: setting the frequency of vibration feeder. Discharge state will be more stable if frequency high.

Vibration feeder strength: it depends on the component, if component too small and strength set high it will shake out the component easily, of course if strength small, the discharging speed will be slower.

(2) Nozzle Jointly Alignment setting:

Click test button and go into interface below:



Click the central point among four nozzles under the shot can set the central point.

Another way is press CTRL button then click the mouse to make each nozzle to identify their own central point in the four quadrants.

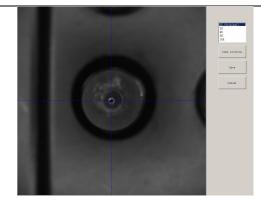
(Notice: Please click the LENS ROTATION before setting the suction nozzle, then PnP machine will collect nozzle's 360 degree rotation photos to synthesize. After that, press CTRL button to set each nozzle's identification of central point.

Save it after finishing the setting.

(3) Correct nozzle 1~nozzle 4 separately.

Click test and go into interface below:

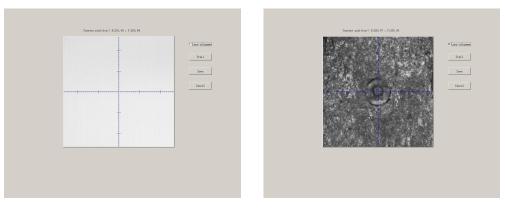




Operation steps: 1.click the button of LENS ROTATION to let machine take photos of nozzle's 360 degree rotation . 2.click the central point of nozzle 3. Click the save button.

Relative position of nozzle 1 and camera: it is for the synchronism of nozzle and camera, setting it when placement position do not matched with the camera position.

Click setting then go into interface below:



Move the nozzle to any place of PCB board, put one piece of carbon paper, then click REMAINS(MARK), placement head will rotate and leave a dot, after that click the button of Focus that dot and save, it will be done (show as photo above ).

Trash box position: setting the position of dropping component, it depends



### **Company Profile**

I.C.T, a long-standing electronic equipment industry platform, has been continuously contributing to the global customer base in the field of electronics manufacturing since 1999. I.C.T company has excellent technical team and service team in surface mount technology (SMT), plug-in assembly (DIP), functional test (TEST), etc. in home appliances (Such as TV, refrigerator, air conditioner, washing machine), new energy (LED, Solar, new energy vehicles, automotive electronics, medical equipment, semiconductors, power electronics and other fields have many successful experiences. Our products cover SMT equipment (smt line, stencil printer, SPI, pick and place machine, AOI, reflow oven, handling equipment), DIP equipment (plug-in line, wave soldering machine, assembly line, belt line), test equipment, packaging equipment, etc. .

Through the deepening of I.C.T's globalization strategy, we have helped more than 200 customers around the world to complete the entire industry chain from program design, production and construction, service training, etc. Our team and products have covered more than 150 countries all around the world and area.

While exporting I.C.T's nearly 30 years of technical experience to global customers, we continue to improve our R&D capabilities and production capabilities. Through investment and equity acquisitions, I.C.T has more than 15 member companies in China, forming a supply chain for the entire industry chain system.

In 2018, We helped clients plan to build more than 35 production workshops and train more than 100 technicians. In the next five years, our goal is to continue to focus on the electronics manufacturing industry, to provide more than 200 customers worldwide, and to provide more professional and active technical support for customers' manufacturing.