Change punching head to cutting head

Preparations:

- 1. Cutting head
- 2. New DELTA driver for U1 motor
- 3. Cables : TK3S-19D TK3S-36D TK3S-15P TK3S-02P
- 4. Common maintenance tools

Operating steps:

We need change cables from driver to cutting head, it will start from driver, go through X/Y chain then go inside the box behind the cutting head and connect with B board



1. Pull out the electric box, remove the cover and find the EOPS board and Z1 driver.



You can see 'Z1' marked on the top of driver Remove Z1 output, CN2, GND cables



2. Find a place to fix the new driver, this new driver will be used as U1 driver to control cutting head up and down movement.

Normally the order of drivers is X1 X2 Y Z1 U1 Z2 U2 Z3 U3. You also can fix it on other place depend on the cables length.

3. Because we removed Z1 and U1 driver cables are go to same socket as head 1 socket, so you need use new cable TK3S-36D to replace the old head1 socket cables.

Connect TK3S-19D cables from EPOS board to U1 driver.

Use a cable jump from Z1 driver L1/L2 to U1 driver.

Don't forget connect the GND.



 Use TK3S-15P cable to replace the old one. You need open the X chain and put new cable inside and take the old one out. The chain can be opened on one side.



Open the box which is on the right side of the beam, you'll see many sockets inside. Find the old head1 socket and replace it.



Follow the old cables you can know how to lead the new one goes to right place.

5. Use same ways to connect TK3S-02P on Y direction.



 Change driver setting: The new driver, U1 driver parameters we have set in our factory, no need to

change. Z1 driver was used as punching head, now we change it to cutting head, so we need change Z1 driver parameters.

Switch on power, press MODE goes into parameter setting, change p1-44 parameter from 16 to 40, then press SET to save your changing.

7. Change machine setting:

Open Cutterserver and start machine.

Go into cutterserver, because it's first time start machine, so there must has an error in cutterserver, it's normal. After we change the setting, it will be ok.

Press shift+alt+ctrl+M, go into parameter setting

	Parameter item	Value		
Machine		BK		
Machine	Sub	0	X	
Machine	Туре	Single Machine		
1Head		PPT	~	
2Head		DELTA		
3Head		NULL		
4Head		NULL		
Show		iEcho BK Cutter		
Length		250		
Width		160		
Serial		bk325160000000		
	Obstacle Detection	V		
	Automatic Knife Initialization	V		
	Hand Operator	16bit	×	
	Air Area Adjustment	V		
	CNC Router Function	7		

Find head1, change PPT to DELTA.

Apply your changing then restart machine.

8. Set head1 position:

Install a tool (CUT1 OR EOT) on head1, and calibrate its cutting depth.

Put paper on the table and select the red light, move the red dot on the paper, use a pen to mark this position.

Select head1 tool and make it down to touch the paper, check this position if it is same with red light position.

Press alt+shift+ctrl+P,

Material thickn	5.000		mm		
The first knife s	The first knife setting depth				mm
Eccentricity ena	Eccentricity enable				
Compatible Wi	Compatible With The Old Version				
Repeated cuttin	peated cutting times				time
Socket1			PUCH1	~	
		X-axis offset	46.000		mm
Socket		Y-axis offset	-124.800		mm
		A knife and X forward A	90.000		limit
		SP	14		
		Tool No	13		
		Positive angle of knife a	0.000		limit
		Knife lifting over cut(kn	0.000		mm
		knife setting over cut(Ki	0.000		mm
		Knife lifting angel	3000.000		limit
					A COLUMN TWO IS NOT

Socket 1 is head 1, change X/Y axis offset, make head1 lift down position same with red light position.

If you set correct, 3 heads will cut in same position.