

# *Automatic Label Cutting Machine* **OPERATION MANUAL**



“JEONGWOOD” Brand,  
**Model : TBC - 50S**

Reliable Partner - - - - -

**JEONGWOOD TRADING CORP.**

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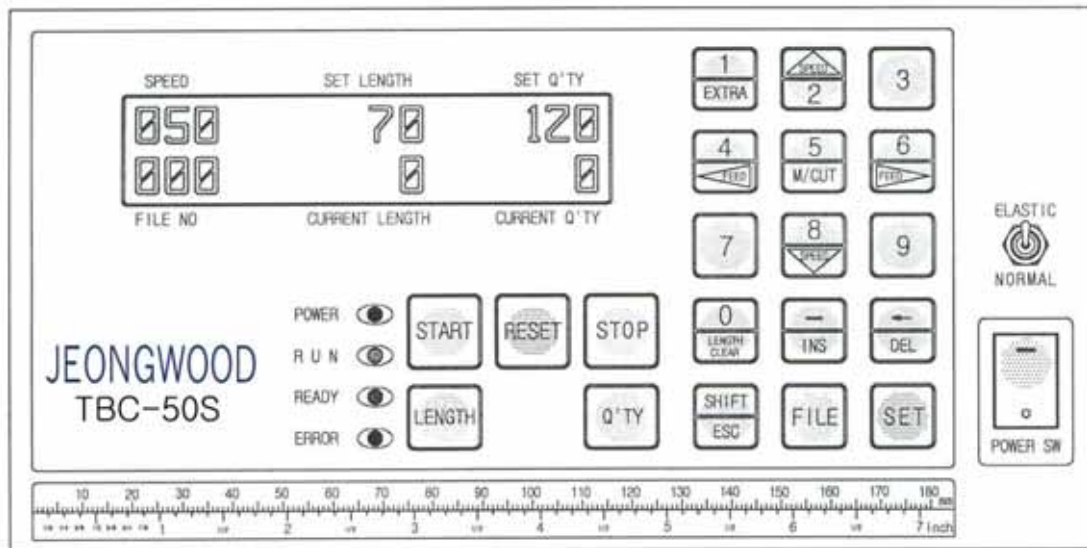
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## How to operate TBC-50S

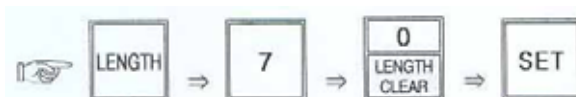


- For example : Cutting length : 70mm  
Cutting quantity : 120pcs

Turn on the POWER SW.

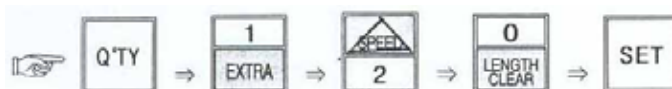


Set cutting length 70mm. (Press the following buttons in order.)



Button “0” has a double functions as “0” and erasing current length.

Set cutting quantity 120pcs.



Set function. (label “1”, non-label “0”)





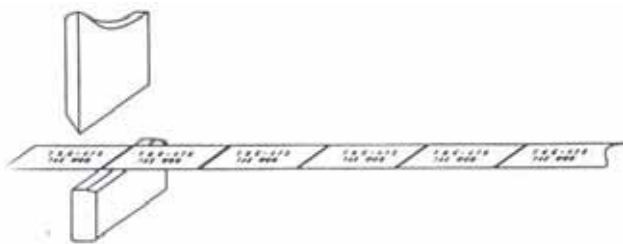
Set the material switch depends on cutting material.



Upside : elastic material

Downside : normal material (including label etc..)

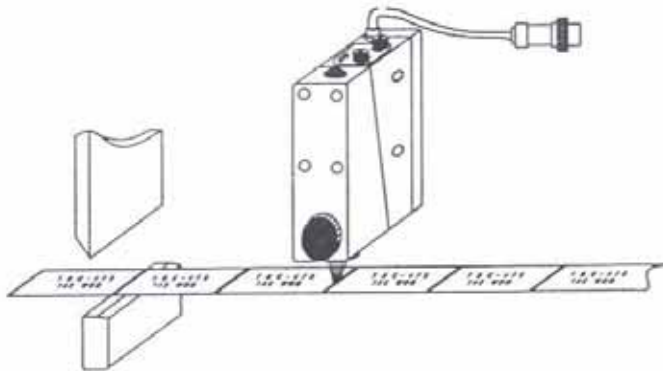
Cutting line of label should be placed on the lower knife blade.  
(This step should be done prior to sensor adjustment.)



Sensor adjustment

Sensing focus should be on sensing point of label and fix it.

(Please refer “How to use sensor KRTM 20” on next page.)



Press START button.



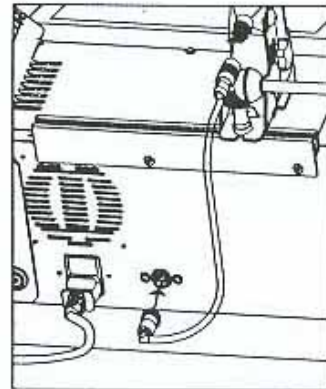
Check Points of cutting trouble.

- Check if you adjust sensor after placing of cutting line on knife blade.
- Move the sensor forwards or backwards.
- Check sensitivity of sensor and/or its height.
- Check if material switch is correctly placed as upside or downside.

## How to use sensor KTRM 20

1)

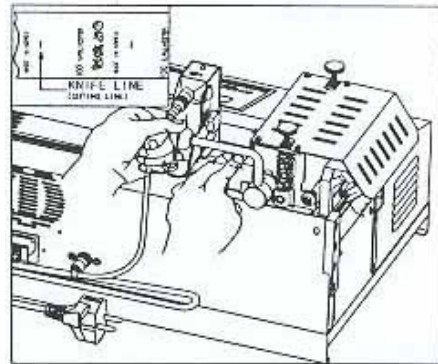
Mount the sensor on the guide-rail and connect the push-driving connector into the connector receptacle at backside of machine.



2)

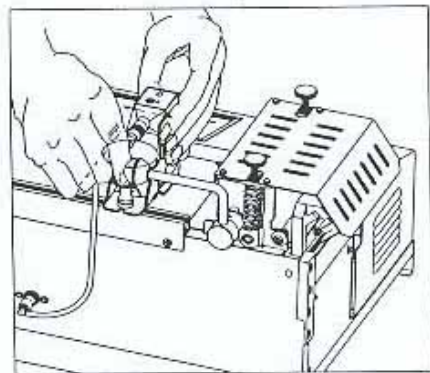
Cutting line of label should be placed on the lower knife blade and move the sensor close to the knife.

**(This step is essential before positioning of sensor.)**



3)

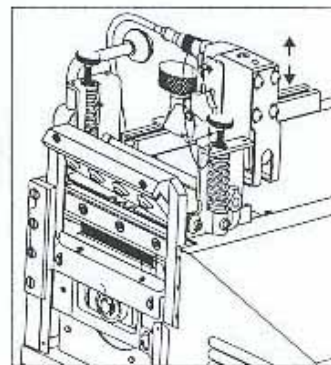
Adjust the sensor with guide-control bolt so that sensing focus should be on the center of cutting mark.



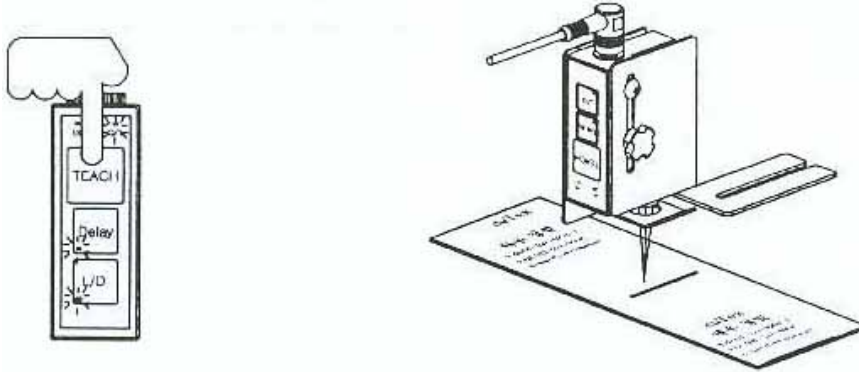
4)

By use of sensor height-control bolt, make sure to clear focus with oval shape.

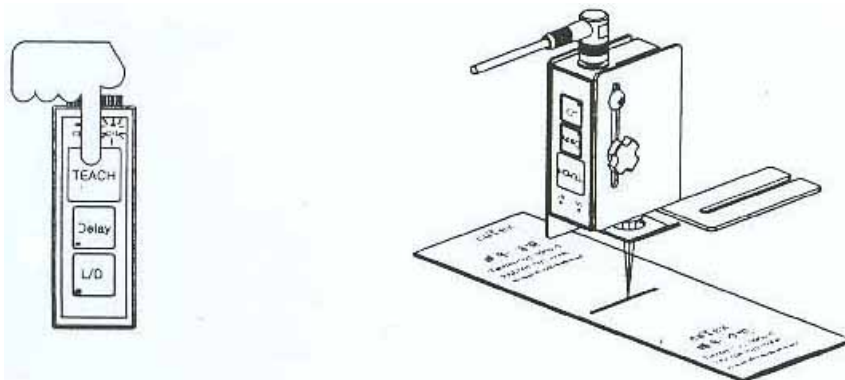
**(Sensor height is properly adjusted before shipment.)**



5) **Position sensing focus on the background of label** and press "TEACH" button. Then, indication lamp "Q/T" will be blinking rapidly. At the same time, "Delay" and "L/D" lamps will be blinking too.

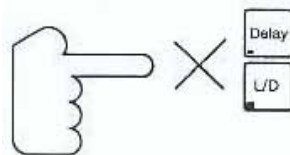


6) Move the sensing focus to the sensing point(cutting mark, cutting line, figure or wordings) and press "TEACH" button. Then, "Delay" and "L/D" lamps will be off and indication lamp "Q/T" will stop its blinking, but "Q/T" lamp will be on. (If "Q/T" lamp still continue to blink, sensor adjustment is incorrect. Please set it again.)



### (Caution)

Whatever the background is dark or light than sensing point, activate "TEACH" button background at first and sensing point later on.  
After sensor setting, DO NOT press "Delay" and "L/D" button. It may cause an error with change of input data.



In case of sensing objects with reflective or shiny surface, tilt the sensor by 10° ~ 15°.

## 2. Key Functions



: Function for cutting selection  
(label cutting => "1", others => "0")



: Current length on display will be back to "0" when machine has stop.



: Reset current length/quantity.



: Use to move knife only.  
to cut the material for test  
to take out material jammed between knife blades  
for balancing of knife blades to replace



: Use to cut additional one.



: Restore to normal condition from "ERROR"(red LED) and use to input parameter or program.



To move the roller manually to feed material to machine  
and/or feeding it to forwards/backwards



- Speed up (Current speed appears on the left-upside of LCD with "%". (Normal speed : 50%, Max. speed : 100%))



- Speed down (Current speed appears on the left-upside of LCD with "%". (Normal speed : 50%, Max. speed : 0%))

**Speed up and down are available at any time(operation or stop) and setting speed will not be changed even though RESET button has pressed or power off & on.**



: to input new program between programs input already



: to delete wrong program

### 3. Specification

Model number : TBC-50S

Main cutting material : label

Cutting knife : cold

Power supply : AC 220V 50/60Hz

Max. cutting width : 110mm

Range of cutting length : 1mm ~ 99,999mm

Cutting quantity(cutting length : 50mm) : 120 ~ 140pcs/min.

Dimension & Net weight : 850 x 320 x 380mm, 19.5Kg

Packing dimension & gross weight : 535 x 430 x 370mm, 22.2Kg

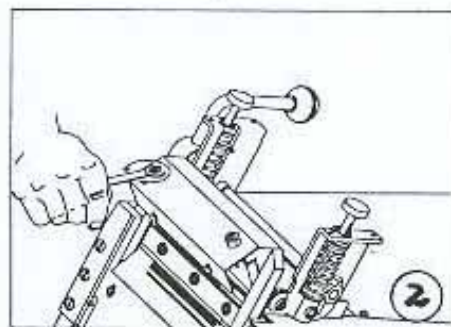
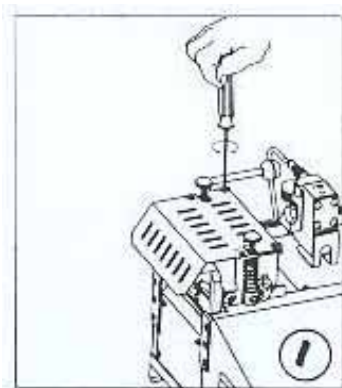
### 4. Caution to use

- Before use, make sure AC input voltage and connect ground(earth).  
(Static-electricity will be reduced about 50%.)
- Do not place hands or any object close to the working knife for safety.
- When knife blade becomes to dull, grinding it by grinding machine.  
However, do not allow unskilled person to grind it manually and install it to machine.

### 5. Replacement of knife blade

Firstly, unscrew 4 bolts on safety cap and remove the cap.

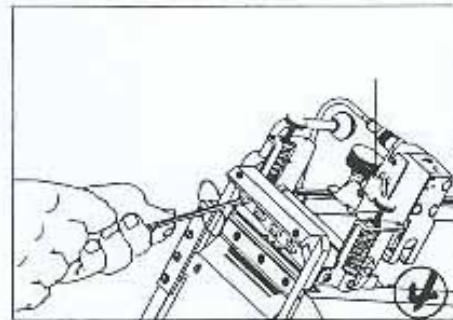
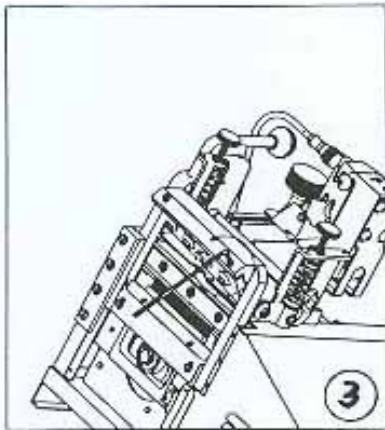
In order to remove upper blade, remove anti-static device by use of 8mm spanner.



Unscrew two upper-blade control bolts by use of 2.5mm wrench. (Do not remove it completely.)

Unscrew four upper-blade fixing bolts by use of 4mm wrench and remove upper-blade.



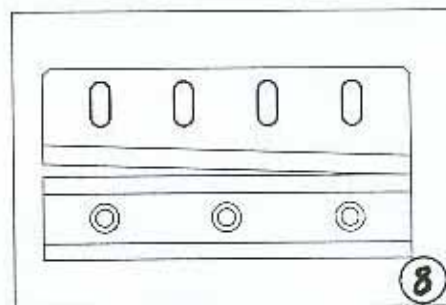
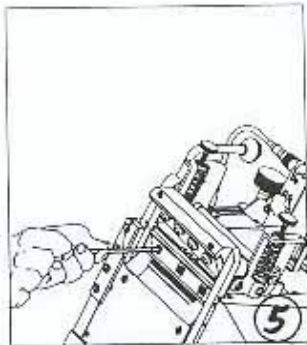


Unscrew three lower-blade fixing bolts by use of 4mm wrench and remove lower-blade.

Install new lower-blade in reverse order and fasten it firmly.

Move up upper-blade frame and install new upper-blade. Then, fix it properly. But, do not fasten it too firmly.

Softly touch the “M/CUT” button until right-side-end of upper-blade coming down and contacts to right-side-end of lower-blade. Then, screw the upper-blade control bolts slightly.



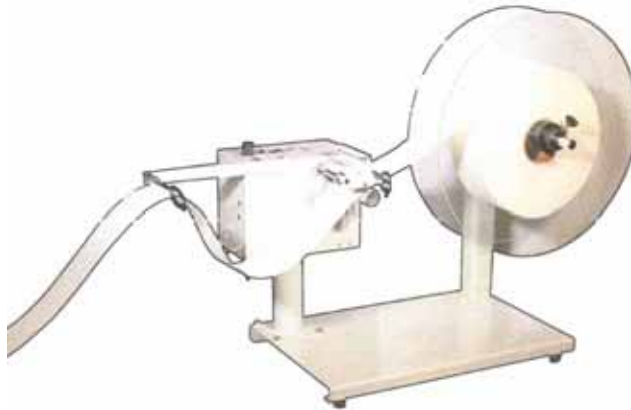
Proceed cutting test by “M/CUT” button to cut paper or tissue(left, middle and right part of blade in order) and adjust upper-blade control bolts finally.

When cutting is O.K., fasten upper-blade control bolts firmly.



### **Mount of cutting material(roll)**

Fix the triangle roll hanger by 4mm wrench and/or assemble feeding device TFD-92S as below.

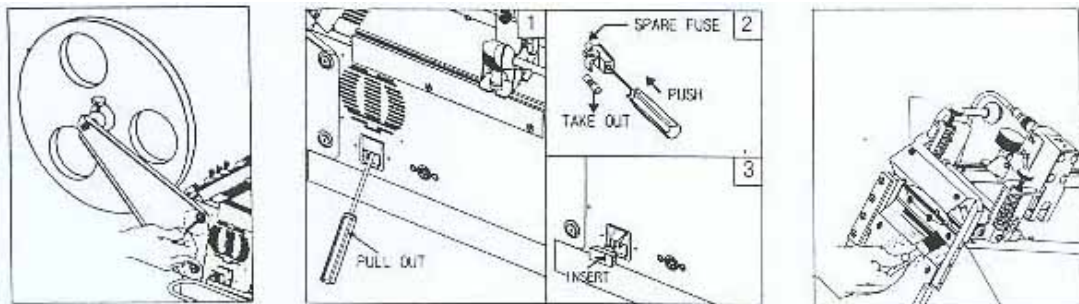


### **Replacement of fuse**

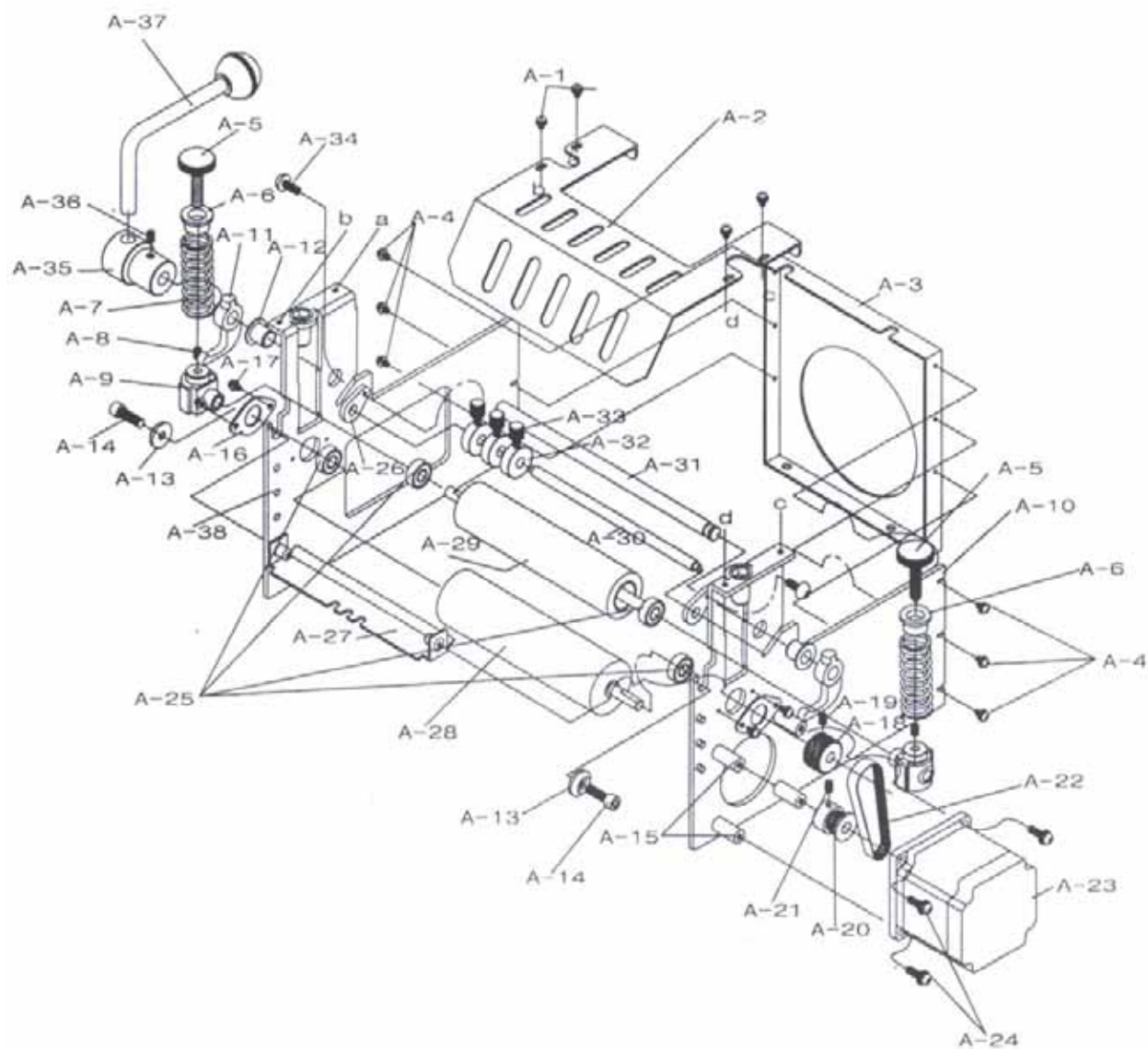
Take off the power plug and replace it as per following picture.

### **Cleaning of anti-static brush**

If anti-static function becomes to weak, clean the anti-static brush by other brush.



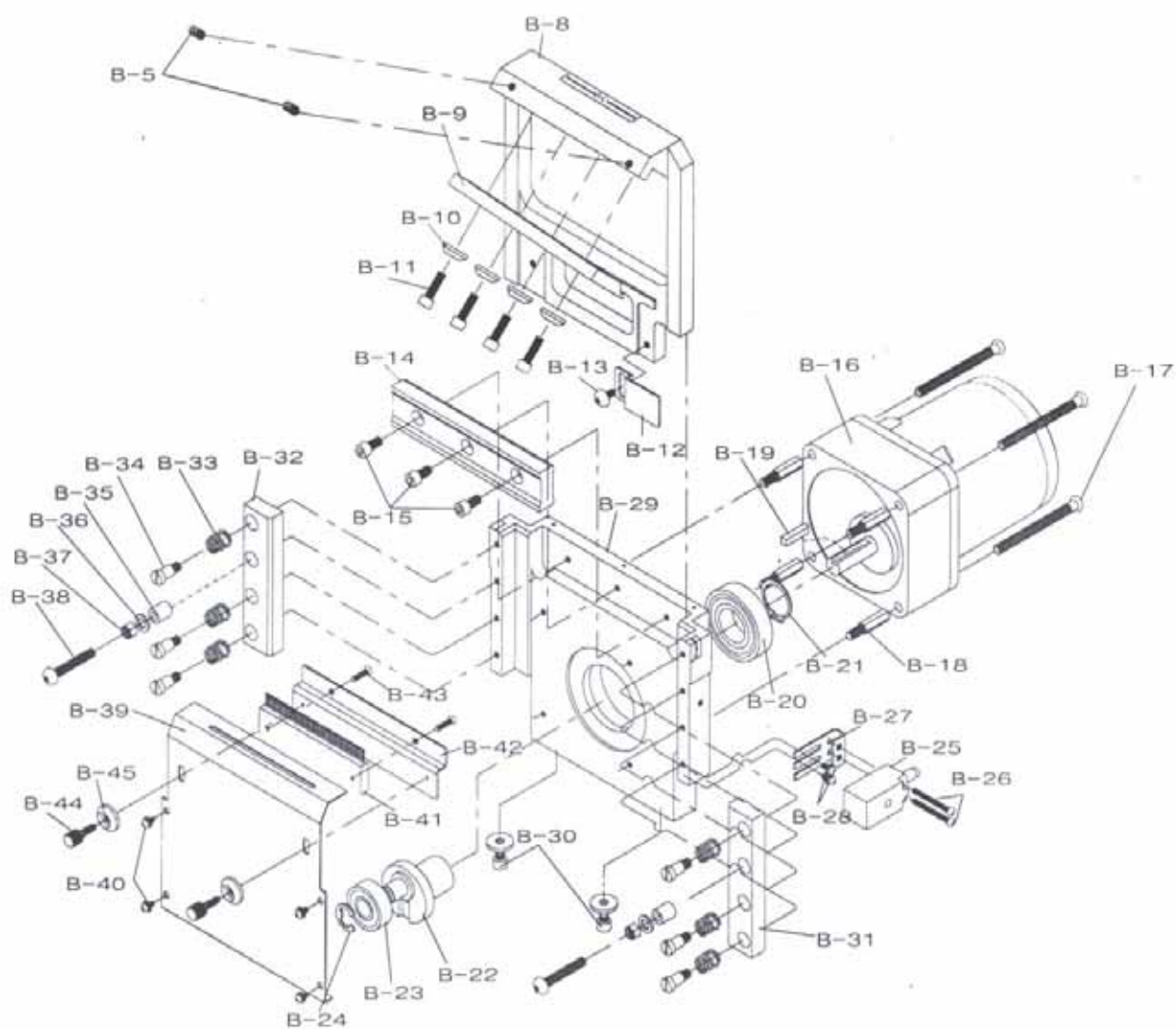
Parts drawing A of TBC-50S (Feeding part)



**Parts List A of TBC-50S (Feeding part)**

Part No.	Description	Part No.	Description
A-1	Clamping bolt (M3 x 5L)	A-21	Detent screw (M3 x 6L)
A-2	Knife safety cover	A-22	Timing belt (MXL75)
A-3	Space plate of roller bracket	A-23	Stepping motor
A-4	Clamping bolt (M3 x 5L)	A-24	Clamping bolt (M4 x 13L)
A-5	Pressure-control bolt	A-25	Ball bearing (#696)
A-6	Pressure-control spring cover	A-26	Guide-clamping bracket
A-7	Pressure-control spring	A-27	Stopper
A-8	Detent screw (M4 x 6L)	A-28	Lower roller
A-9	Slide block of upper roller	A-29	Upper roller
A-10	Right roller bracket	A-30	Front-guide pin
A-11	Slide lever	A-31	Lever shaft
A-12	Oilless	A-32	Guide ring
A-13	Clamping washer	A-33	Knob bolt of guide ring
A-14	Wrench bolt (M x 14L)	A-34	Round screw (M4 x 5L)
A-15	Tie bar of stepping motor	A-35	Lever bracket
A-16	Bearing cover	A-36	Detent screw (M5 x 5L)
A-17	Clamping bolt (M3 x 5L)	A-37	Lever
A-18	Feed-timing gear (MXL30T)	A-38	Left roller bracket
A-19	Detent screw (M4 x 6L)		
A-20	Drive-timing gear (MXL20T)		

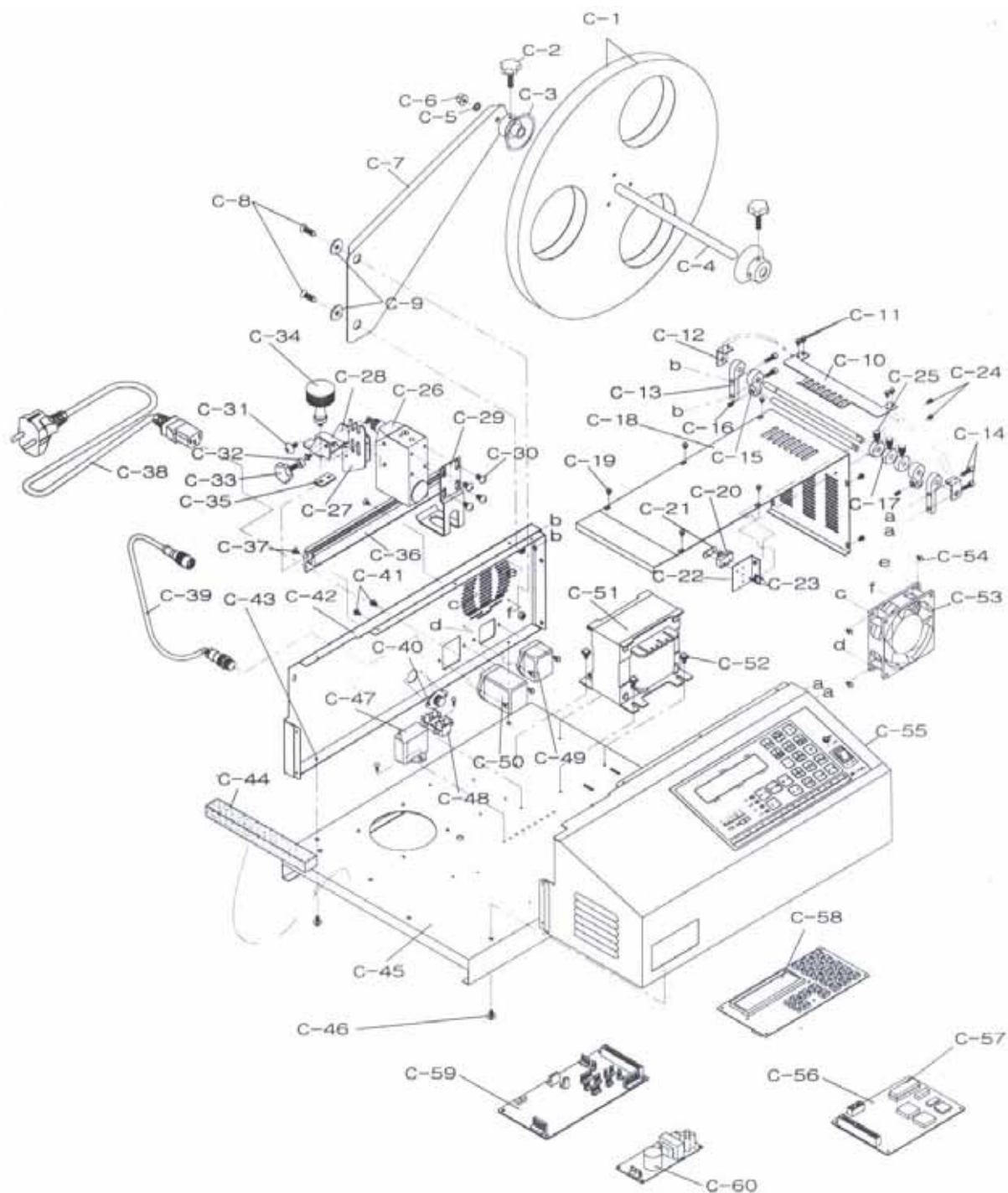
Parts drawing B of TBC-50S (Cutting part)



**Parts List B of TBC-50S (Cutting part)**

Part No.	Description	Part No.	Description
B - 1	-	B - 26	Clamping bolt (M3 x 18L)
B - 2	-	B - 27	Clamping bracket
B - 3	-	B - 28	Clamping bolt (M3 x 5L)
B - 4	-	B - 29	Lower knife case
B - 5	Detent screw (M5 x 14L)	B - 30	Wrench bolt (M5 x 15L)
B - 6	-	B - 31	Right pressure plate
B - 7	-	B - 32	Left pressure plate
B - 8	Upper knife case	B - 33	Pressure spring
B - 9	Upper knife	B - 34	Clamping bolt of pressure plate
B - 10	Neck washer	B - 35	Urethane bush
B - 11	Wrench bolt (M5 x 15L)	B - 36	Tension - control washer
B - 12	Counting - sensor bracket	B - 37	Tension - control nut
B - 13	Clamping bolt (M4 x 6L)	B - 38	Tension - control bolt
B - 14	Lower knife	B - 39	Front cover
B - 15	Wrench bolt (M5 x 10L)	B - 40	Clamping bolt (M3 x 5L)
B - 16	Motor + reduction gear	B - 41	Anti - static brush
B - 17	Clamping bolt (M5 x 42L)	B - 42	Brush - clamping bracket
B - 18	Motor supporter	B - 43	Clamping bolt (M3 x 10L)
B - 19	Motor key	B - 44	Height - control knob bolt
B - 20	Bearing (#6004)	B - 45	Neck washer
B - 21	Snap ring		
B - 22	Crank bundle		
B - 23	Ball bearing (#6000)		
B - 24	E - ring		
B - 25	Counting sensor		

Parts drawing C of TBC-50S (Other part)



**Parts List C of TBC-50S (Other part)**

Part No.	Description	Part No.	Description
C - 1	Roll-hanger wheel	C - 31	Height-control bolt
C - 2	Clamping bolt of holder	C - 32	Liner
C - 3	Holder	C - 33	Height-control bolt of sensor
C - 4	Roll-hanger shaft	C - 34	Position-control bolt of sensor
C - 5	Roll-hanger shaft washer	C - 35	Plate-nut of sensor guide
C - 6	Check nut (M6)	C - 36	Sensor guide
C - 7	Roll-hanger	C - 37	Flat-head bolt (M4 x 10L)
C - 8	Flat-head bolt (M6 x 16L)	C - 38	Power cord
C - 9	Neck washer of roll-hanger	C - 39	Sensor-connector
C - 10	Existence detector	C - 40	Sensor-connector bracket
C - 11	Clamping bolt (M3 x 5L)	C - 41	Clamping bolt (M3 x 5L)
C - 12	Clamping bracket	C - 42	Left cover
C - 13	Rear guide-pin bracket	C - 43	Clamping bolt (M4 x 8L)
C - 14	Wrench bolt (M4 x 15L)	C - 44	Sponge
C - 15	Rear tension-guide block	C - 45	Base
C - 16	Detent screw (M4 x 6L)	C - 46	Clamping bolt (M4 x 8L)
C - 17	Guide ring	C - 47	Condenser
C - 18	Upper guide plate	C - 48	Terminal
C - 19	Clamping bolt (M3 x 5L)	C - 49	AC connector (OUTPUT)
C - 20	Micro limit switch	C - 50	AC connector (INPUT)
C - 21	Plate-nut	C - 51	Transformer
C - 22	Limit switch bracket	C - 52	Clamping bolt (M4 x 6L)
C - 23	Clamping bolt (M2 x 10L)	C - 53	Cooling fan
C - 24	Clamping bolt (M3 x 5L)	C - 54	Clamping bolt (M3 x 6L)
C - 25	Knob bolt	C - 55	Control cover
C - 26	Sensor	C - 56	Control circuit board (MB)
C - 27	Sensor bracket	C - 57	ROM
C - 28	Angle-control bracket	C - 58	Operation circuit board (OP)
C - 29	Front bracket of sensor	C - 59	Drive circuit board (DR)
C - 30	Height-control bolt	C - 60	SMPS (Power supply)



### Trouble-shooting of TBC-50 series

No.	Trouble		Applicable model	Cause & management
1	No power supply		All models	<ul style="list-style-type: none"> <li>- Check if electric cord is properly connected.</li> <li>- Check if fuse blows out or not.</li> </ul>
2	Power "on" But, no work	Feeding roller doesn't work	All models	<ul style="list-style-type: none"> <li>- Check if there is foreign substance in roller.</li> <li>- If current length on display is changing, replace drive board.(DR)</li> <li>- If current length on display is not changing, replace control board(MB).</li> </ul>
		Knife doesn't work	All models	<ul style="list-style-type: none"> <li>- Check if pressure plates of upper knife are too much fastened or not.</li> </ul>
		LCD no display	All models	<ul style="list-style-type: none"> <li>- Open the cover and check connection. (Especially between OP and MB board)</li> </ul>
		All functions doesn't work	All models	<ul style="list-style-type: none"> <li>- Check if auto-stop device lies down. If so, raise it up.</li> </ul>
3	No cutting of material		Hot cutter (H,LH,SH,HX)	<ul style="list-style-type: none"> <li>- Check if temperature goes up to set-degree</li> <li>- Check if knife blades are even(parallel).</li> </ul>
4	Cut material one-sidedly		All models	<ul style="list-style-type: none"> <li>- Check if blades are damaged or weared.</li> <li>- Make both blades close to each other by M/CUT button and check if they are even or not. (If they are not even, adjust them by bolt.</li> </ul>
5	Cut length is different than set-length		All models	<ul style="list-style-type: none"> <li>- Cut after loosening material from the reel by hands or use feeding device.</li> </ul>
6	Cutting before cutting mark of label		Label cutter (S, SH)	<ul style="list-style-type: none"> <li>- Move the sensor towards knife as much as length difference.</li> </ul>
7	Cutting after cutting mark of label		Label cutter (S, SH)	<ul style="list-style-type: none"> <li>- Move the sensor towards counter-knife as much as length difference.</li> </ul>
8	Error on LCD & LED	ERROR CODE [064]>Sensor Check Er	Label cutter (S, SH)	<ul style="list-style-type: none"> <li>- Trouble in mark sensor -&gt; <ul style="list-style-type: none"> <li>•Check if sensor has connected properly.</li> <li>•Check if sensor has adjusted properly. (FILE NO 001)</li> <li>•Check if it caused by label or not.</li> </ul> </li> </ul>
		ERROR CODE [065]>CUT I/O Error!	All models	<ul style="list-style-type: none"> <li>- Trouble in cutting motor or cutting sensor-&gt; <ul style="list-style-type: none"> <li>•When upper knife moves 1-3 second and ERROR on display, check the connection of cutting sensor. If not, replace sensor.</li> <li>•When upper knife does not move and ERROR on display, replace cutting motor or drive board.</li> </ul> </li> </ul>
		STOP INPUT!! CHECK STOP INP!	All models	<ul style="list-style-type: none"> <li>- Auto stop device has pressed down or short circuit. -&gt; Raise it up and check short circuit.</li> </ul>
		(C)ACORD CTRL-OP AMC-T3KA VER1.7D	All models	<ul style="list-style-type: none"> <li>- Bad connected ROM -&gt; Press ROM by hands or connect it again. (If not, replace MB board.)</li> </ul>
		ERROR CODE [065]>CHECK CODE[003]	All models	<ul style="list-style-type: none"> <li>- Change of FILE 003 in program by noise or operation mistake. -&gt; Initialize the controller How to initialize(Program to reset) : Press SET + SHIFT/ESC button and RESET button at the same time. (Press RESET button later than other two keys.)</li> </ul>
9	Feels electric current when hands touch the machine		All models	<ul style="list-style-type: none"> <li>- Connect the earth cord(green) to any bolt at backside of machine.</li> </ul>