



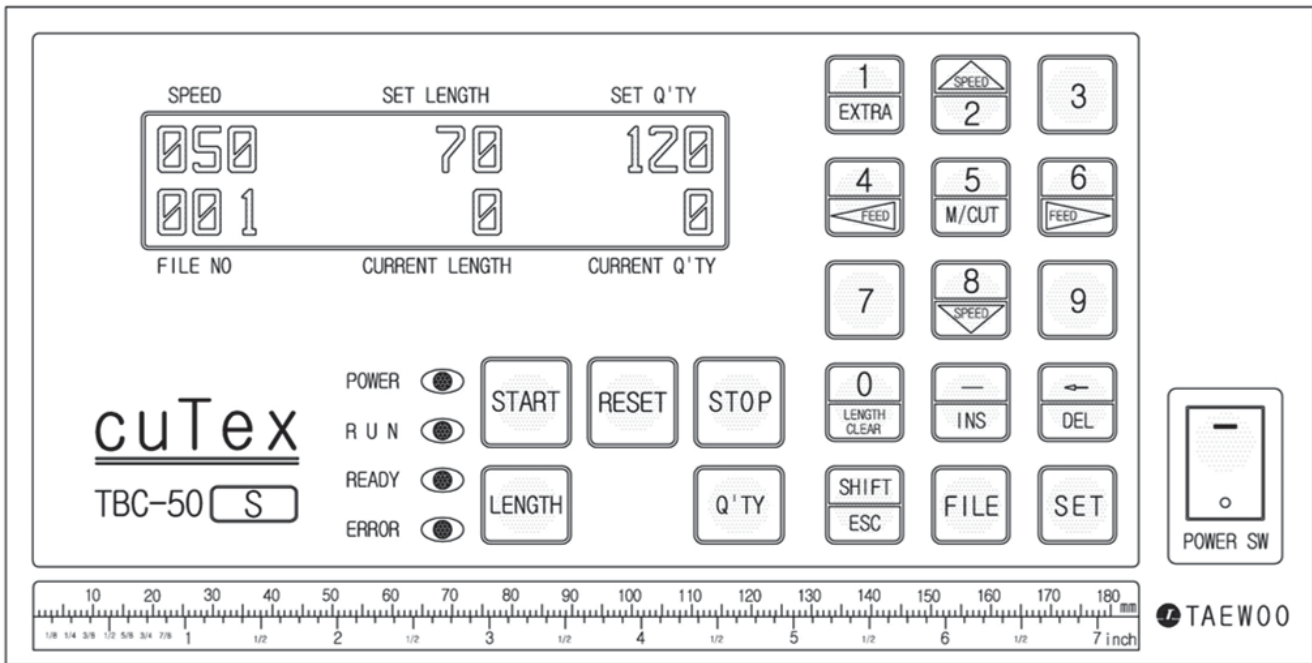
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# AUTOMATIC PRINTED LABEL CUTTER

## TBC-50S

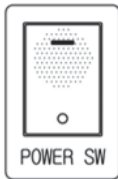


# How to operate TBC-50S

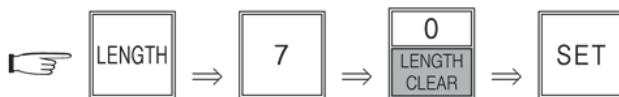


1. An example (Cutting length : 70mm, Cutting quantity : 120 pcs)

▷ Turn on the POWER SW.



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



※ Button "0" has a double fuctions of "0" and eraising current length.

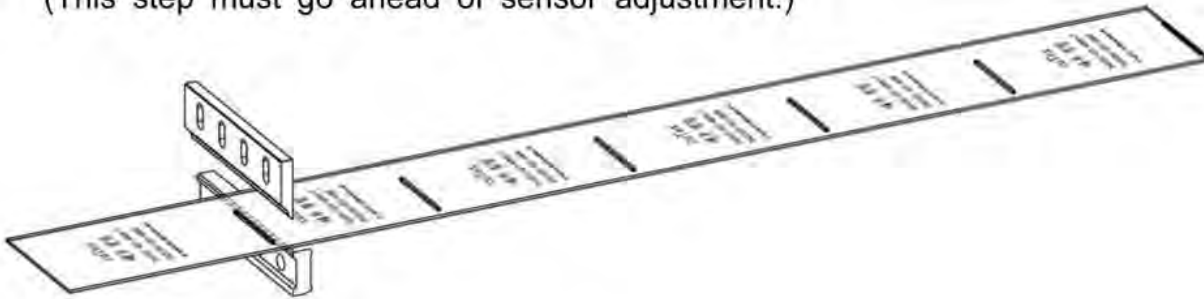
▷ Set cutting quantity 120 pcs.



- ▷ Set function.(Sensor cutting: "1", Normal cutting : "0")



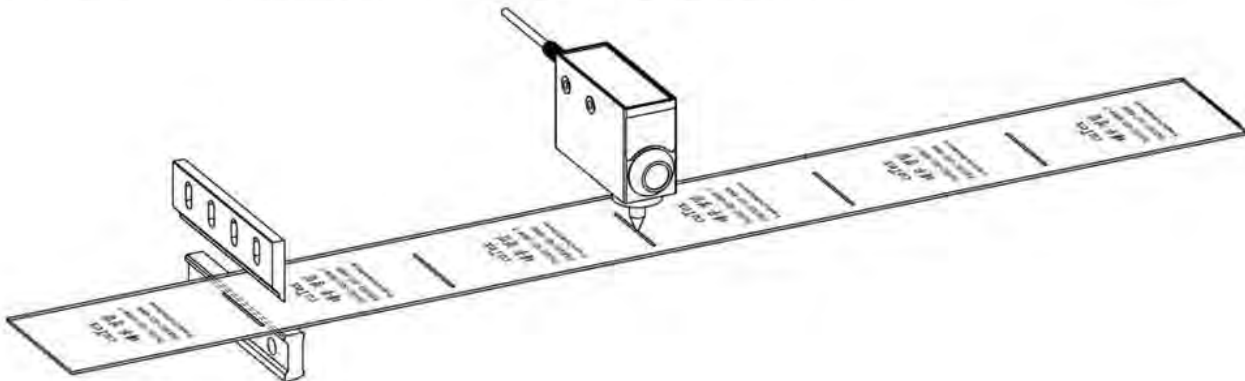
- ▷ Locate the cutting line of label on the lower knife blade.  
(This step must go ahead of sensor adjustment.)



- ▷ Sensor Adjustment

Light sensor-beam on sensing point of label.

(Refer to "How to use BANNER sensor of next page.)



- ▷ Press START button.

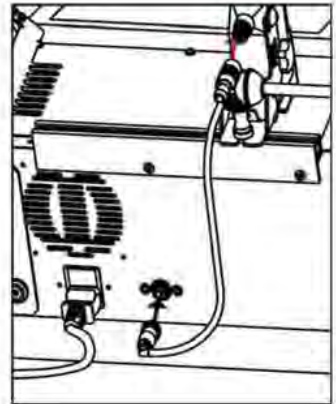


※ Check Points for cutting trouble

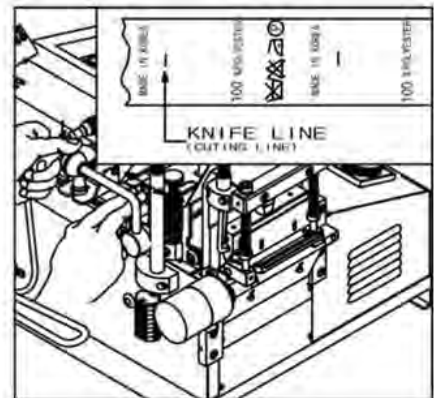
- Check if you adjust sensor after locating cutting line of label on the knife blade.
- Move the sensor forwards or backwards.
- Check sensitivity & height of the sensor.
- Check if the switch is upside for elastic, downside for non-elastic including label.

## How to use BANNER sensor

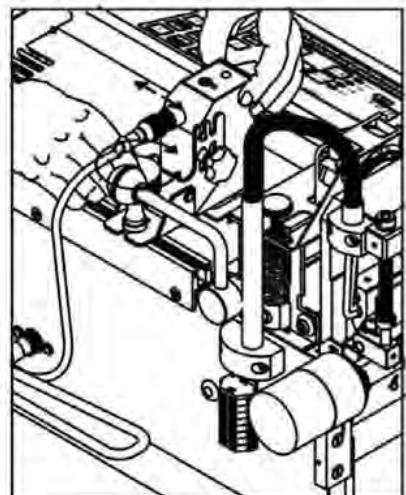
- ① Mount the sensor on the guide-rail and connect the jack of sensor into the connector of machine downside.



- ★② Locate the cutting line of label on the lower knife blade precisely & move the sensor close to the knife.  
(This step is essential just before fix the location of sensor.)

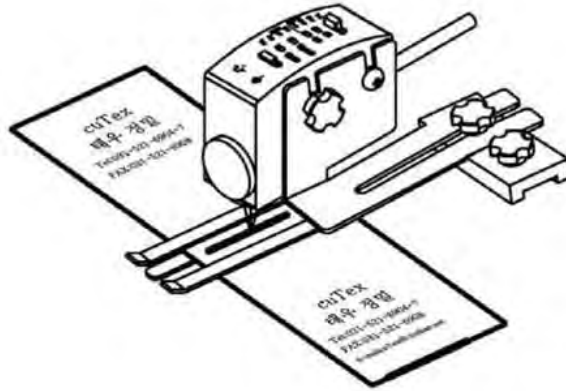


- ③ Adjust the sensor with guide-control bolt for lightening the beam on the center of marking point.

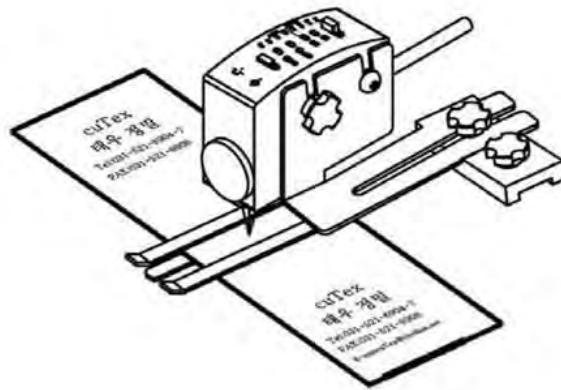




★④ Position the light spot to the mark(cutting line or figure, letters).



⑤ Move the light spot on the background.



⑥ If it sets well, you can see the LED blinks as follow image.



**(Caution)**

- ※ Whatever the background is darker or lighter than the mark, the mark first and the background second.
  
- ※ In the case of objects with reflective or shiny surface, tilt sensor by 10° to 15° relative to surface.

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## 2. Key functions



: Function for label cutting



: Current length on display will be back to "0" at a stop.



: All of current length and current q'ty on display will be back to "0".



: Moving knife only.

- ① to cut the material for test.
- ② to take out the material jammed between knife blades.
- ③ for balancing of knife blades in exchange.



: Cutting additional one.



: Restoring to normal condition in ERROR(red LED) and inputting parameter or program.



: to move the roller manually for mounting the material on the machine or for feeding it forwards or backwards.



— Speed up (The current speed appears on the left-upside of LCD display with "%". Normal speed : 50%, Maximum speed : 100%)



— Speed up (The current speed appears on the left-upside of LCD display with "%". Normal speed : 50%, Maximum speed : 0%)

**\* Speed up & down is possible in any time(operation or stop) and set-speed will not be changed even though you press RESET button or power off & on.**



: to insert new program between programs inputted already in time of program-input.



: to delete the wrong program in time of program-input. (All things of the STEP will be deleted.)

### 3. Specification

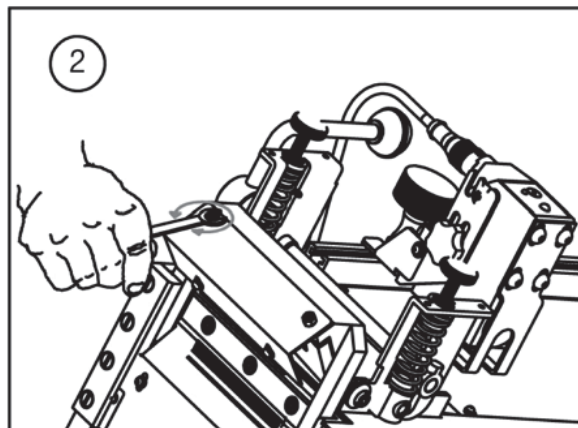
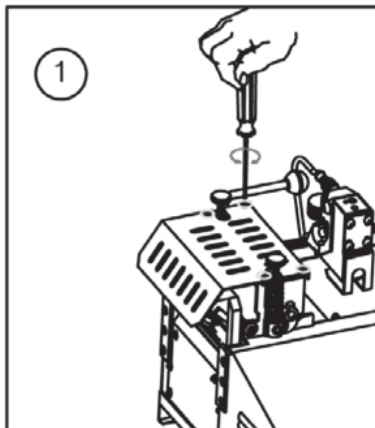
Model Name	Main Cutting Materials	Cutting Knife	Power Supply	Max. Cutting Width	Range of Cutting Length	Cutting Q'ty/min. (Length: 50mm)	Machine Size (Net weight)	Packing Size (Gross weight)
TBC-50S (Label cutter)	Label	Cold	AC110/220V 50/60Hz	110mm	1mm~300M	120~140 cuts	850×320×380 (19.5kgs)	535×430×340 (22.7kgs)

### 4. Caution for use

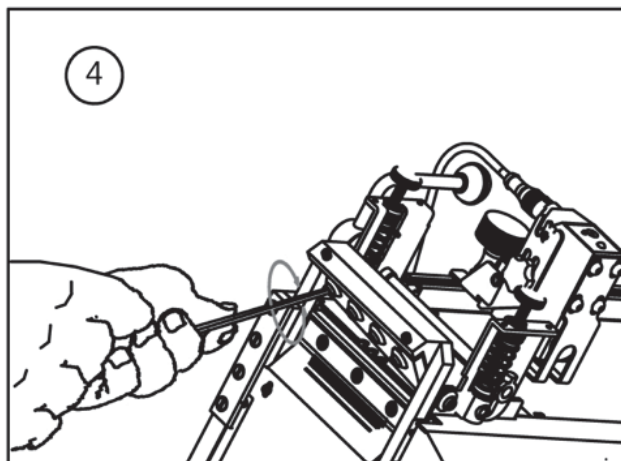
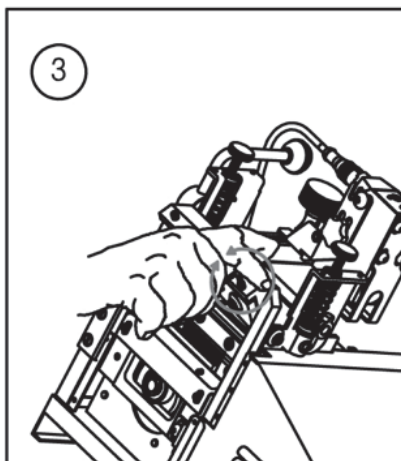
- Before use, please confirm the voltage and make ground(earth) connection. (Static-electricity will be reduced to a half.)
- Do not access hands or any object close to the working knife. (for safety)
- When the knife blade becomes dull, please use it after grinding with the grinding machine. (Please do not let the unskilled person grind manually or install the knife blade.)

### EXCHANGE OF KNIFE

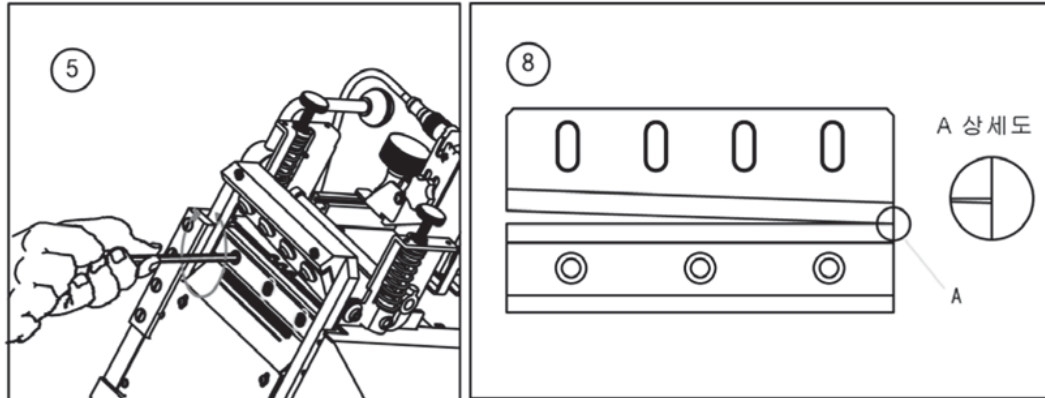
- ① First of all, unscrew 4 bolts on safety cap and take off the cap.
- ② Remove stopper.



- ③ Unscrew 2 control bolts of upper knife by 2.5mm-wrench.(Don't take off.)
- ④ Unscrew 4 fixing bolts by 4mm-wrench and take off upper knife.



- ⑤ Unscrew 3 fixing bolts of lower knife by 4mm-wrench and take off lower knife.
- ⑥ Vice versa, install new lower knife and fasten it firmly.
- ⑦ Move up upper knife frame and install new upper knife and fix it but don't fasten it firmly.
- ⑧ By soft touch of M/CUT button, if right bottom of upper knife contacts top of lower knife, screw the control bolt of upper knife slightly.
- ⑨ Make a cutting test with paper or tissue by M/CUT button(right, middle, left of knife in order and adjust control bolt of upper knife finally.
- ⑩ If cutting is normal, fasten the control bolts of upper knife firmly.
- ⑪ Attach removed stopper again.



#### Mount of roll

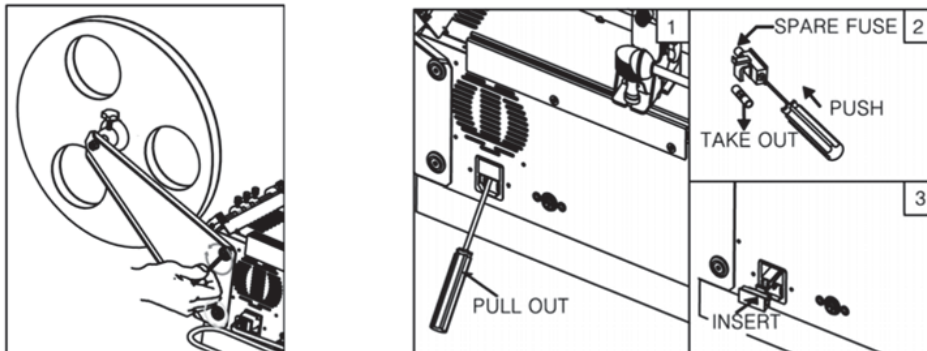
Fix the roll triangle by 4mm-wrench.

#### Exchange of fuse

Take off the power plug and exchange as picture.

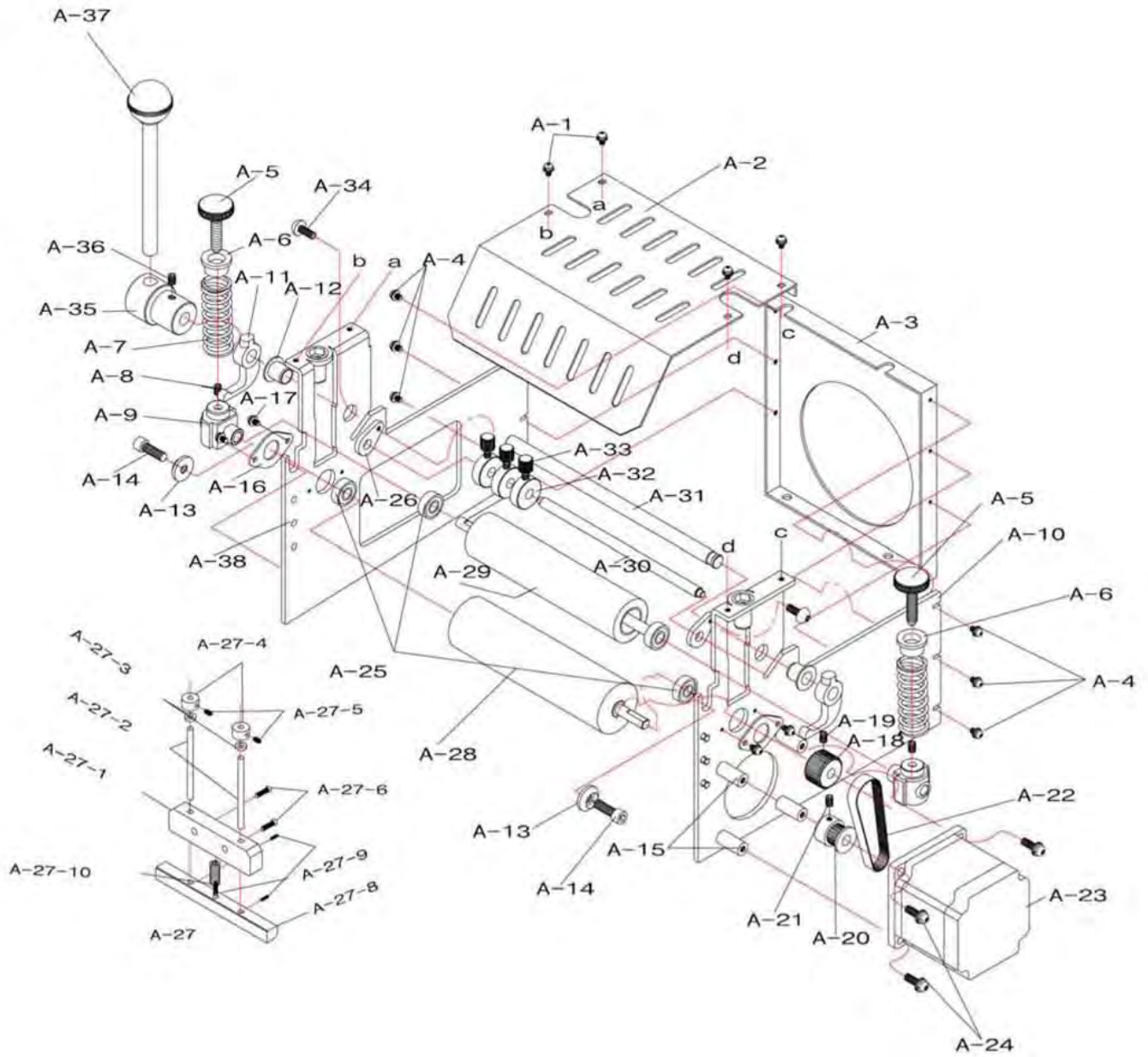
#### Cleaning of anti-static brush

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





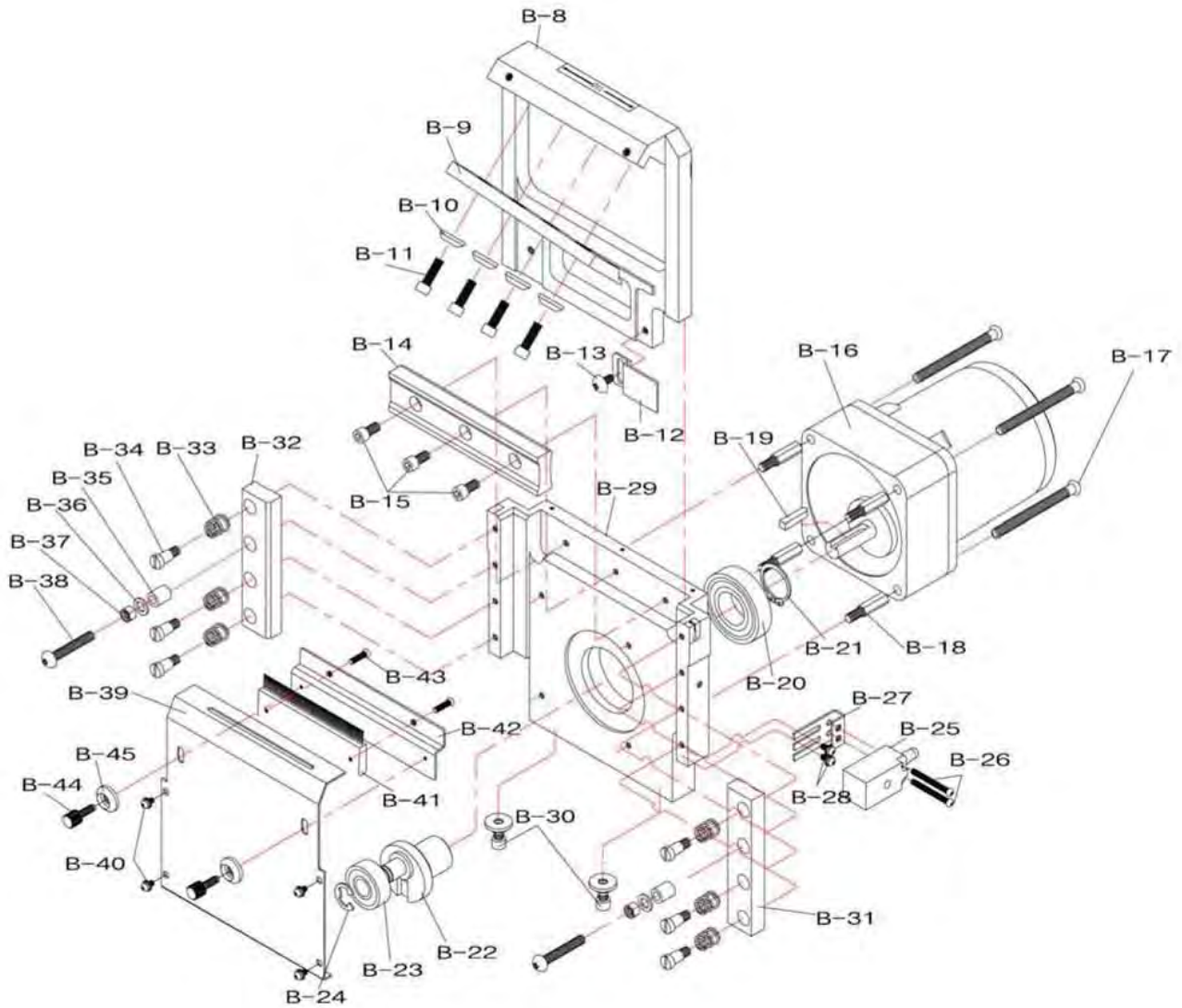
# TBC-50S Part Drawing A (Feeding part)



## TBC-50S Part List A (Feeding part)

Part No.	Description	Part No.	Description
A-1	Clamping Bolt(M3×5L)	A-26	Guide Clamping Bracket
A-2	Knife Safety Cover	A-27	Stopper
A-3	Space Plate of Roller Bracket	A-27-1	Stopper Bracket
A-4	Clamping Bolt(M3×5L)	A-27-2	Pressure Stopper Shaft
A-5	Pressure-control Bolt	A-27-3	Rubber Ring
A-6	Pressure-control Spring Cover	A-27-4	Clamping Ring
A-7	Pressure-control Spring	A-27-5	Clamping Bolt (M3×4)
A-8	Detent Screw(M4×6L)	A-27-6	Clamping Bolt (M5×12)
A-9	Slide Block of Upper Roller	A-27-7	Clamping Bolt (M4×4)
A-10	Right Roller Bracket	A-27-8	Stopper
A-11	Slide Lever	A-27-9	Spring Clamping Bolt
A-12	Oilless	A-27-10	Spring (M4×15)
A-13	Clamping Washer	A-28	Lower Roller
A-14	Wrench Bolt(M×14L)	A-29	Upper Roller
A-15	Tie Bar of Stepping Motor	A-30	Front-guide Pin
A-16	Bearing Cover	A-31	Lever Shaft
A-17	Clamping Bolt(M3×5L)	A-32	Guide Ring
A-18	Feed-timing Gear(MXL30T)	A-33	Knob Bolt of Guide Ring
A-19	Detent Screw(M4×6L)	A-34	Round Screw(M4×5L)
A-20	Drive-timing Gear(MXL20T)	A-35	Lever Bracket
A-21	Detent Screw(M3×6L)	A-36	Detent Screw(M5×5L)
A-22	Timing Belt(MXL75)	A-37	Lever
A-23	Stepping Motor	A-38	Left Roller Bracket
A-24	Clamping Bolt(M4×13L)		
A-25	Ball Bearing(#696)		

# TBC-50S Part Drawing B (Cutting part)



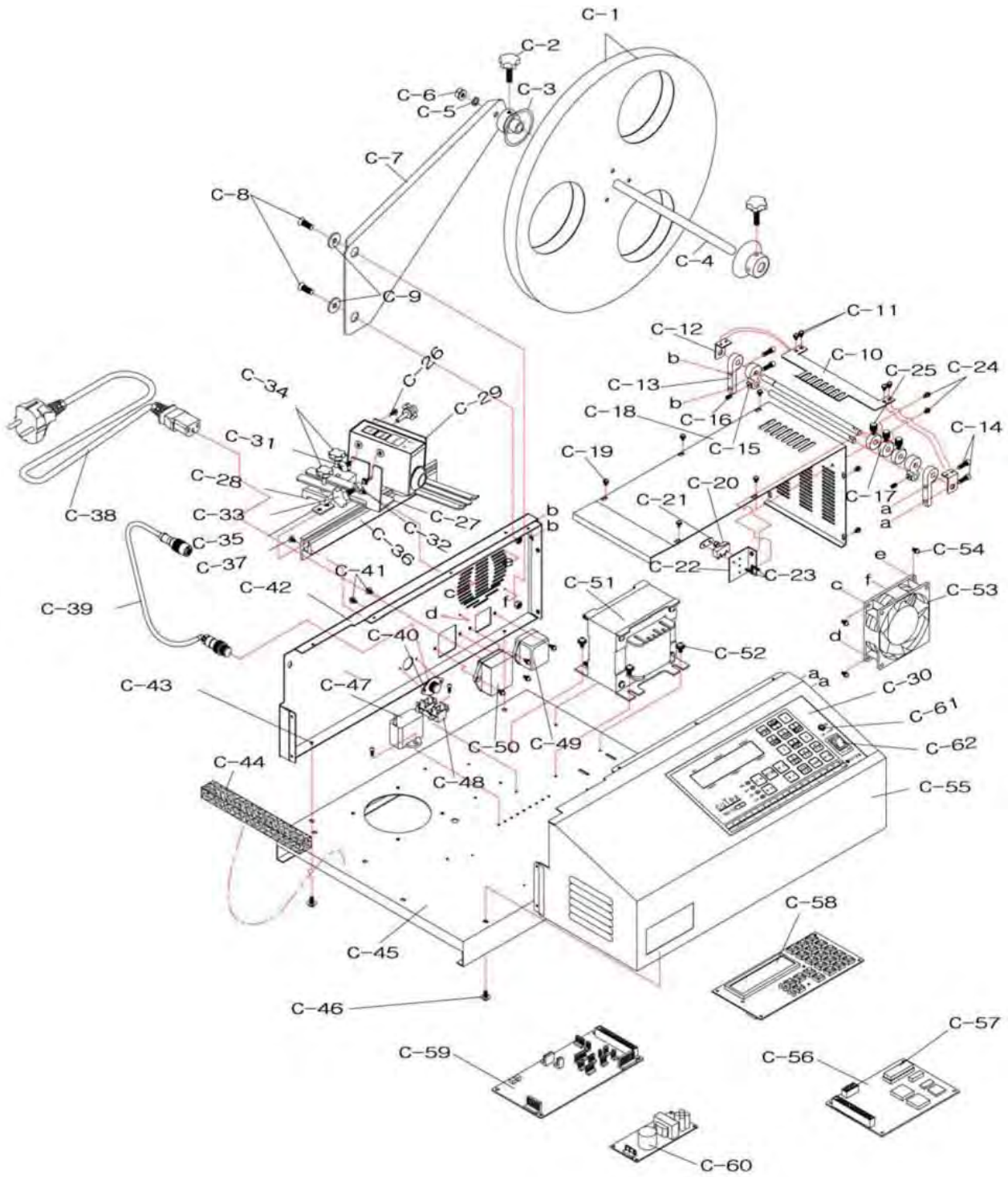
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## TBC-50S Part List B (Cutting part)

Part No.	Description	Part No.	Description
B-8	Upper Knife Case	B-27	Clamping Bracket
B-9	Upper Knife	B-28	Clamping Bolt (M3×5L)
B-10	Neck Washer	B-29	Lower Knife Case
B-11	Wrench Bolt (M5×15L)	B-30	Wrench Bolt (M5×15L)
B-12	Counting Sensor Bracket	B-31	Pressure Plate (Right)
B-13	Clamping Bolt(M4×6L)	B-32	Pressure Plate (Left)
B-14	Lower Knife	B-33	Pressure Spring
B-15	Wrench Bolt (M5×15L)	B-34	Clamping Bolt of Pressure Plate
B-16	Motor+Reduction Gear	B-35	Urethane Bush
B-17	Clamping Bolt (M5×42L)	B-36	Tension-control Washer
B-18	Motor Supporter	B-37	Tension-control Nut
B-19	Motor Key	B-38	Tension-control Bolt
B-20	Ball Bearing (#6004)	B-39	Front Cover
B-21	Snap Ring	B-40	Clamping Bolt
B-22	Crank Bundle	B-41	Anti-static Brush
B-23	Ball Bearing (#6000)	B-42	Front Bracket
B-24	E Ring	B-43	Clamping Bolt
B-25	Counting Sensor	B-44	Height-control Bolt
B-26	Clamping Bolt (M3×18L)	B-45	Height-control Nut



# TBC-50S Part Drawing C (Other part)



## TBC-50S Part List C (Other part)

Part No.	Description	Part No.	Description
C-1	Roll-hanger Wheel	C-32	Liner
C-2	Clamping Bolt of Holder	C-33	Height-control Bolt of Sensor
C-3	Holder	C-34	Position-control Bolt of Sensor
C-4	Roll-hanger Shaft	C-35	Plate-nut of Sensor Guide
C-5	Roll-hanger Shaft Washer	C-36	Sensor Guide
C-6	Check Nut(M6)	C-37	Flat-head Bolt(M4×10L)
C-7	Roll-hanger	C-38	Power Cord
C-8	Flat-head Bolt(M6×16L)	C-39	Sensor-connector
C-9	Neck Washer of Roll-hanger	C-40	Sensor-connector Bracket
C-10	Existence Detector	C-41	Clamping Bolt(M3×5L)
C-11	Clamping Bolt(M3×5L)	C-42	Left Cover
C-12	Clamping Bracket	C-43	Clamping Bolt(M4×8L)
C-13	Rear Guide-pin Bracket	C-44	Sponge
C-14	Wrench Bolt(M4×15L)	C-45	Base
C-15	Rear Tension-guide Block	C-46	Clamping Bolt(M4×8L)
C-16	Detent Screw(M4×6L)	C-47	Condenser
C-17	Guide Ring	C-48	Terminal
C-18	Upper Guide Plate	C-49	AC Connector(OUT-PUT)
C-19	Clamping Bolt(M3×5L)	C-50	AC Connector(IN-PUT)
C-20	Micro Limit Switch	C-51	Transformer
C-21	Plate-nut	C-52	Clamping Bolt(M4×6L)
C-22	Limit Switch Bracket	C-53	Cooling Fan
C-23	Clamping Bolt(M2×10L)	C-54	Clamping Bolt(M3×6L)
C-24	Clamping Bolt(M3×5L)	C-55	Control Cover
C-25	Knob Bolt	C-56	Control Circuit Board(MB)
C-26	Sensor	C-57	ROM
C-27	Sensor Bracket	C-58	Operation Circuit Board(OP)
C-28	Angle-control Bracket	C-59	Drive Circuit Board(DR)
C-29	Front Bracket of Sensor	C-60	SMPS(Power Supply)
C-30	Urethane Panel	C-61	Toggle Switch
C-31	Height-control Bolt	C-62	Power Switch



## Trouble-shooting of TBC-50 series

No	Troubles		Applicable model	Causes & Measures
1	No power supply		All models	<ul style="list-style-type: none"> <li>- Check if electric cord is connected well.</li> <li>- Check if the fuse blows out or not.</li> </ul>
2	Power is on, but no work	Feeding roller doesn't work.	All models	<ul style="list-style-type: none"> <li>- Check if there is inserted any alien substance in roller.</li> <li>- If current length on display is changed, exchange drive board.</li> <li>- If current length on display is not changed, exchange 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 display doesn't work.	All models	<ul style="list-style-type: none"> <li>- After opening the cover, check the connection. (especially between Operation &amp; MB board)</li> </ul>
		All functions don't work	All models	<ul style="list-style-type: none"> <li>- Check if auto-stop device lies down. If any, raise it up.</li> </ul>
3	Material is not cut.		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	Material is cut onesidedly.		All models	<ul style="list-style-type: none"> <li>- Check if blades are damaged or weared.</li> <li>- After making both knives close each other by M/CUT button and check if they are even or not. (If they are not even, adjust them by bolts)</li> </ul>
5	Cut-length is different from set-length.		All models	<ul style="list-style-type: none"> <li>- Test cutting after loosening material from the reel by hand or attaching feeding device.</li> </ul>
6	It cuts before the cutting line of labels.		Label cutter (S, SH)	<ul style="list-style-type: none"> <li>- Move the sensor towards knife side as long as the difference by pushing.</li> </ul>
7	It cuts after the cutting line of labels.		Label cutter (S, SH)	<ul style="list-style-type: none"> <li>- Move the sensor towards counter-knife side as long as the difference by pushing.</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 →</li> <li>· Check if the sensor is connected well or not.</li> <li>· Check if the sensor is adjusted well or not. (FILE NO 001)</li> <li>· Check if it is label problem or not.</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 →</li> <li>· Upper knife moves 1~3 sec. and ERROR on display. Check the connection of cutting sensor. If not, exchange the cutting sensor.</li> <li>· Upper knife doesn't move and ERROR on display. Exchange the cutting motor or drive board.</li> </ul>
		STOP INPUT !! CHECK STOP INP!	All models	<ul style="list-style-type: none"> <li>- Auto stop device is pressed down or shortage. → raise up the device and check shortage.</li> </ul>
		(C)ACORD CTRL-OP AMC-T3KA VER1.7D	All models	<ul style="list-style-type: none"> <li>- Bad connected ROM → Press ROM by hand or connect it again. (If not, change 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 mis-operation → Initialize the controller.</li> <li>※ <b>How to Initialize</b>(programs to be initial) : press <b>SET+SHIFT/ESC</b> buttons and <b>RESET</b> button at the same time. (Press <b>RESET</b> later than other two keys.)</li> </ul>
9	Operator feels electric current in touch of machine.		All models	<ul style="list-style-type: none"> <li>- Connect the earth cord(green) to any bolt of backside of machine.</li> </ul>
10	After exchange ROM, you should do <u>initialize the controller</u> , due to error message, if you cannot do initialization, please press "SHIFT/ESC" button to escape error message screen and then <u>initialize the controller</u> .			