

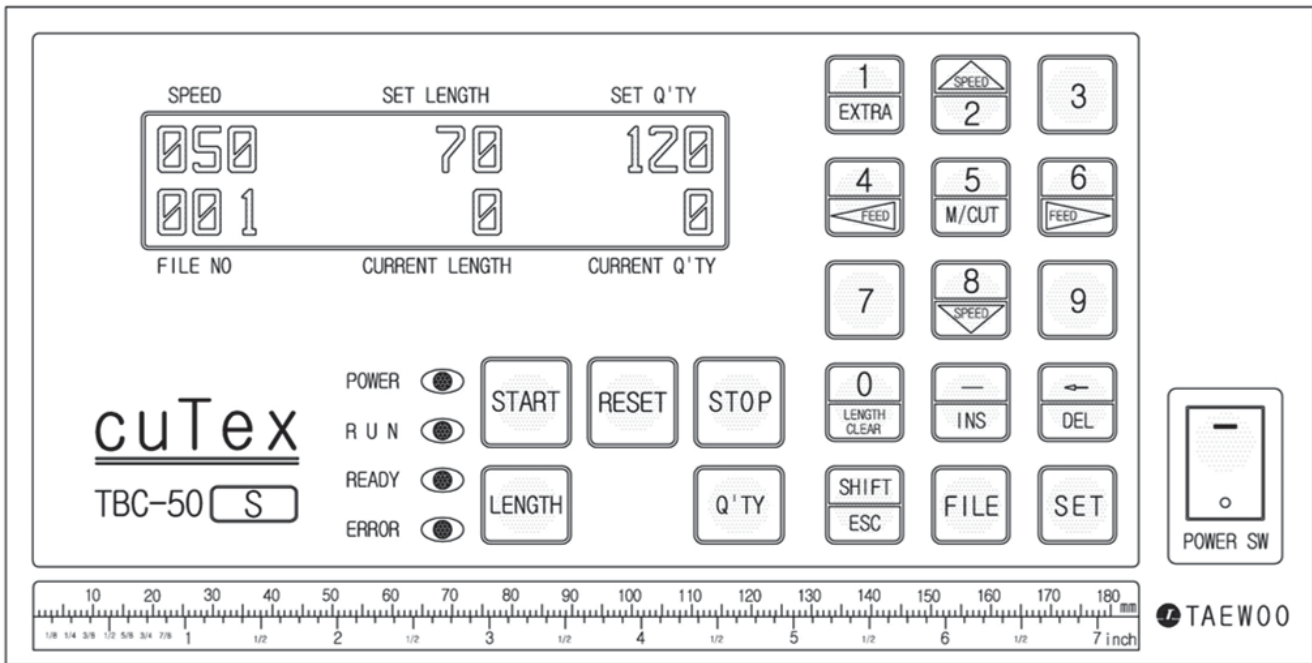


# AUTOMATIC PRINTED LABEL CUTTER

## TBC-50S

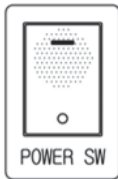


# How to operate TBC-50S

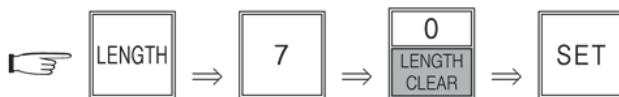


1. An example (Cutting length : 70mm, Cutting quantity : 120 pcs)

▷ 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.

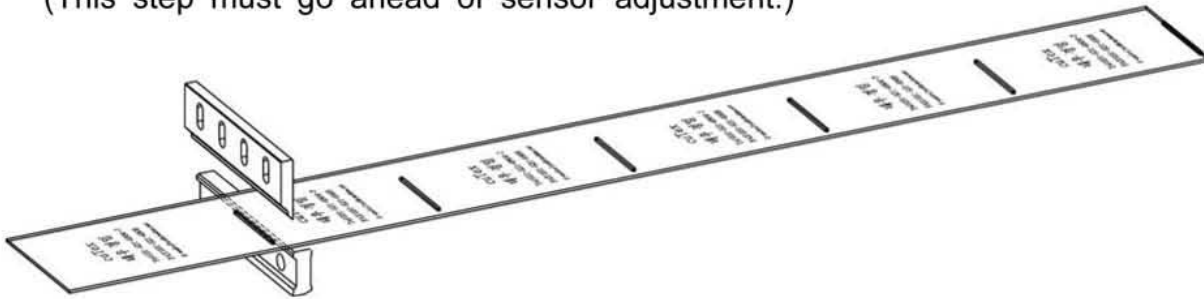
▷ Set cutting quantity 120 pcs.



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



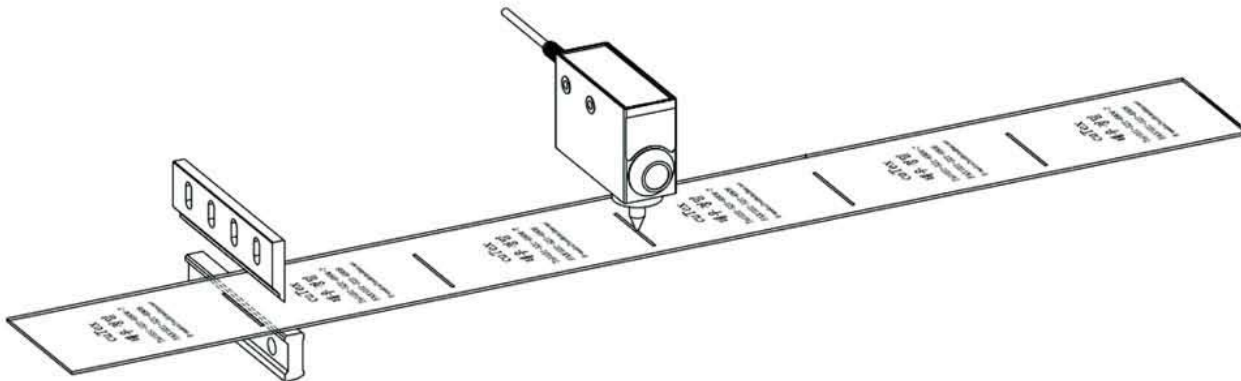
- ▷ Locate the cutting line of label on the lower knife blade.  
(This step must go ahead of sensor adjustment.)



- ▷ Sensor Adjustment

Light sensor-beam on sensing point of label.

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



- ▷ Press START button.

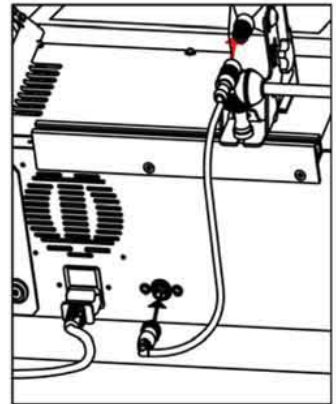


※ Check Points for cutting trouble

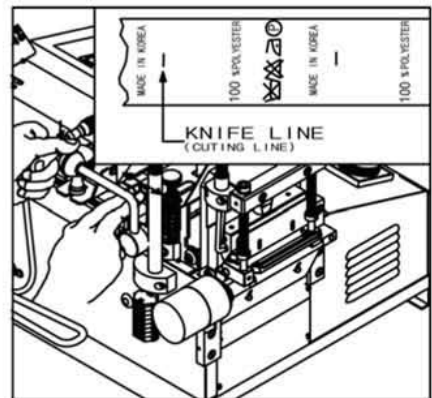
- Check if you adjust sensor after locating cutting line of label on the knife blade.
- Move the sensor forwards or backwards.
- Check sensitivity & height of the sensor.
- Check if the switch is upside for elastic, downside for non-elastic including label.

## How to use BANNER sensor

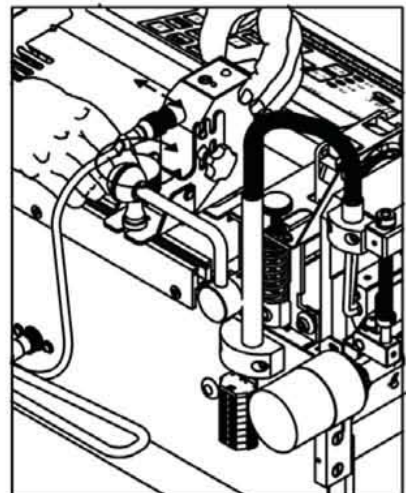
- ① Mount the sensor on the guide-rail and connect the jack of sensor into the connector of machine downside.



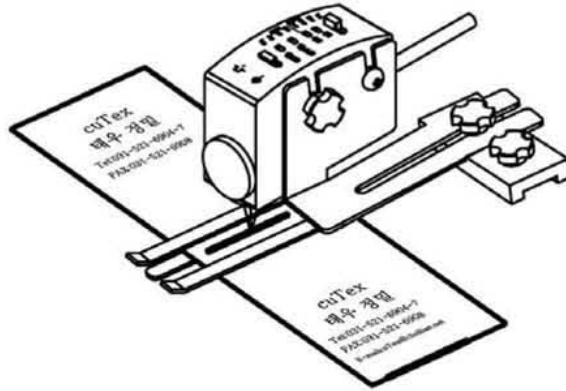
- ★② Locate the cutting line of label on the lower knife blade precisely & move the sensor close to the knife.  
(This step is essential just before fix the location of sensor.)



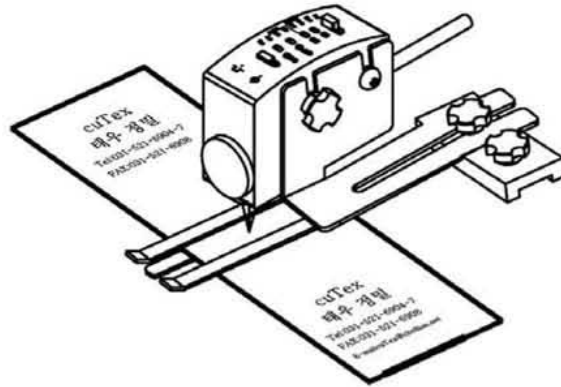
- ③ Adjust the sensor with guide-control bolt for lightening the beam on the center of marking point.



★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

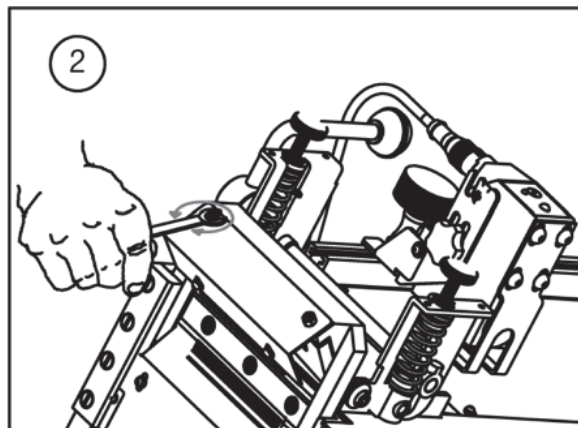
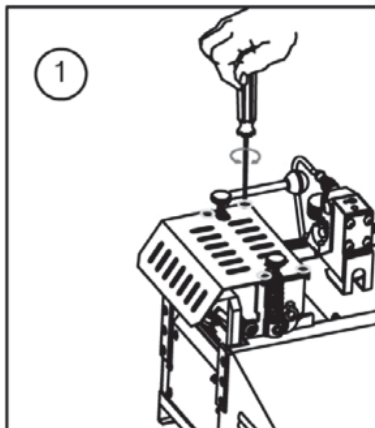
| Model Name             | Main Cutting Materials | Cutting Knife | Power Supply       | Max. Cutting Width | Range of Cutting Length | Cutting Q'ty/min. (Length: 50mm) | Machine Size (Net weight) | Packing Size (Gross weight) |
|------------------------|------------------------|---------------|--------------------|--------------------|-------------------------|----------------------------------|---------------------------|-----------------------------|
| 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

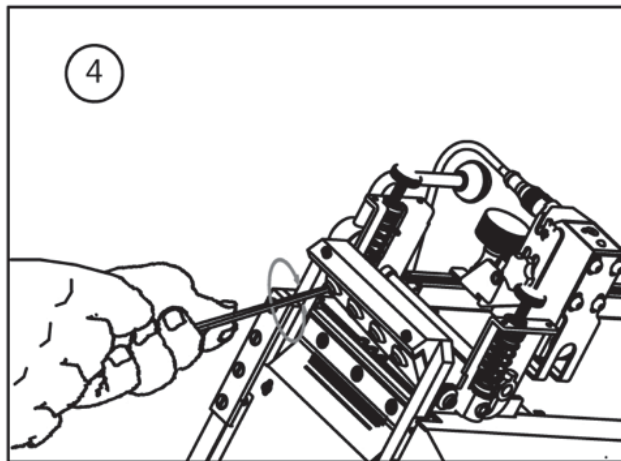
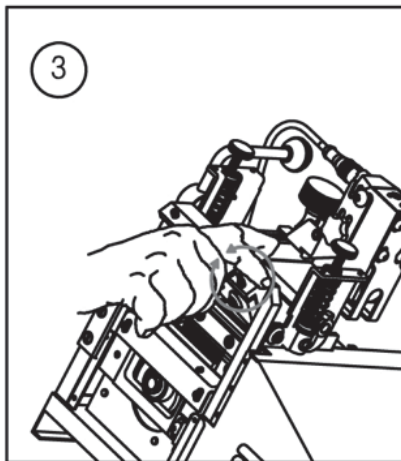
- Before use, please confirm the voltage and make ground(earth) connection. (Static-electricity will be reduced to a half.)
- Do not access hands or any object close to the working knife. (for safety)
- When the knife blade becomes dull, please use it after grinding with the grinding machine. (Please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

### EXCHANGE OF KNIFE

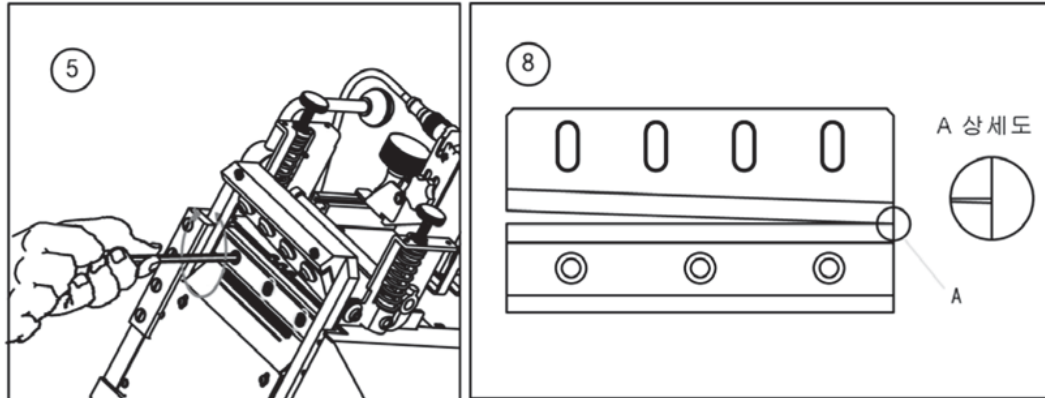
- ① First of all, unscrew 4 bolts on safety cap and take off the cap.
- ② Remove stopper.



- 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

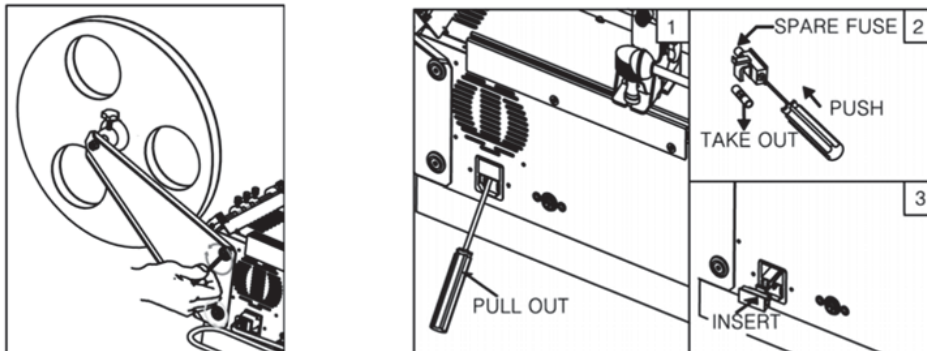
Fix the roll triangle by 4mm-wrench.

#### Exchange of fuse

Take off the power plug and exchange as picture.

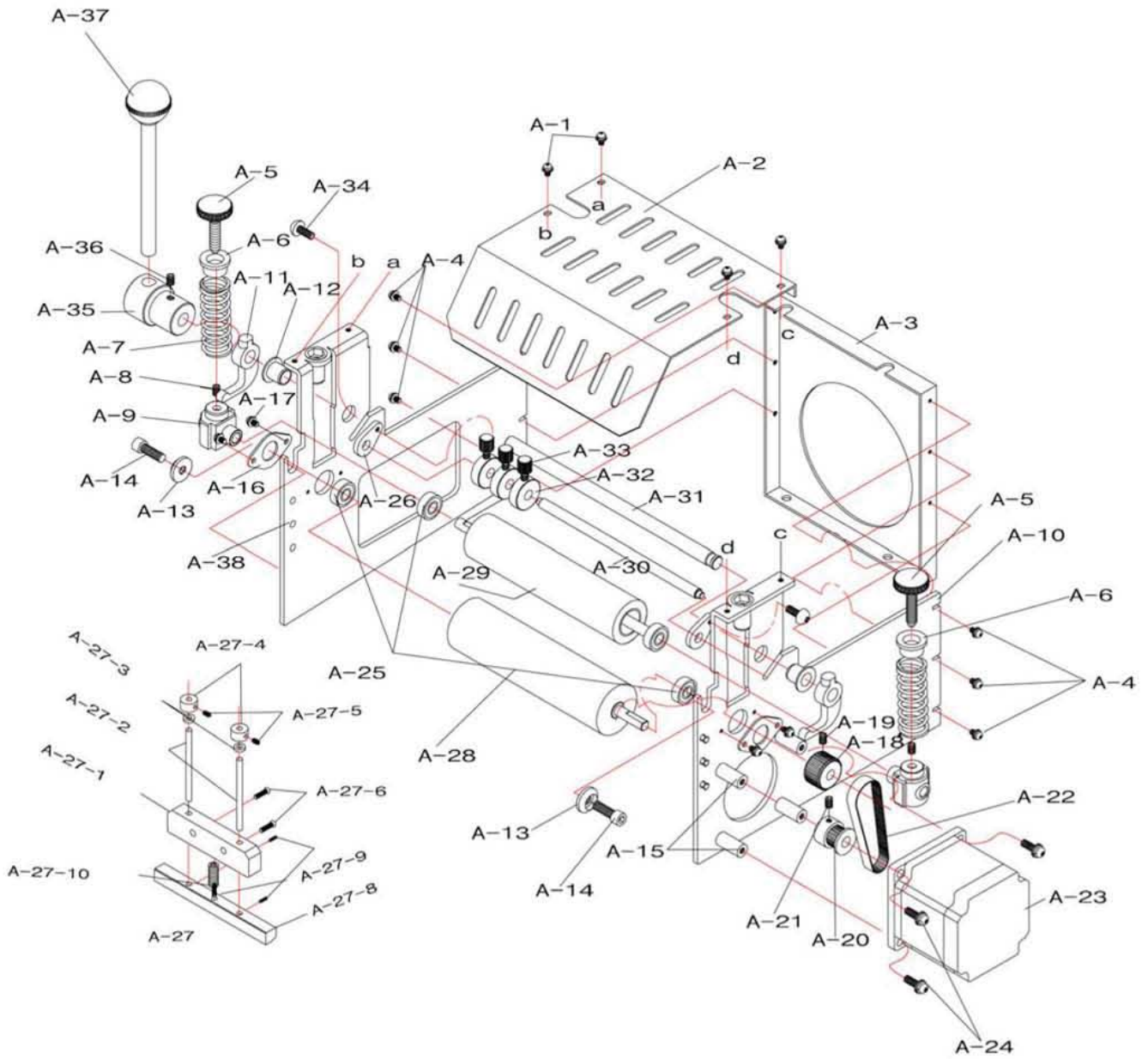
#### Cleaning of anti-static brush

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





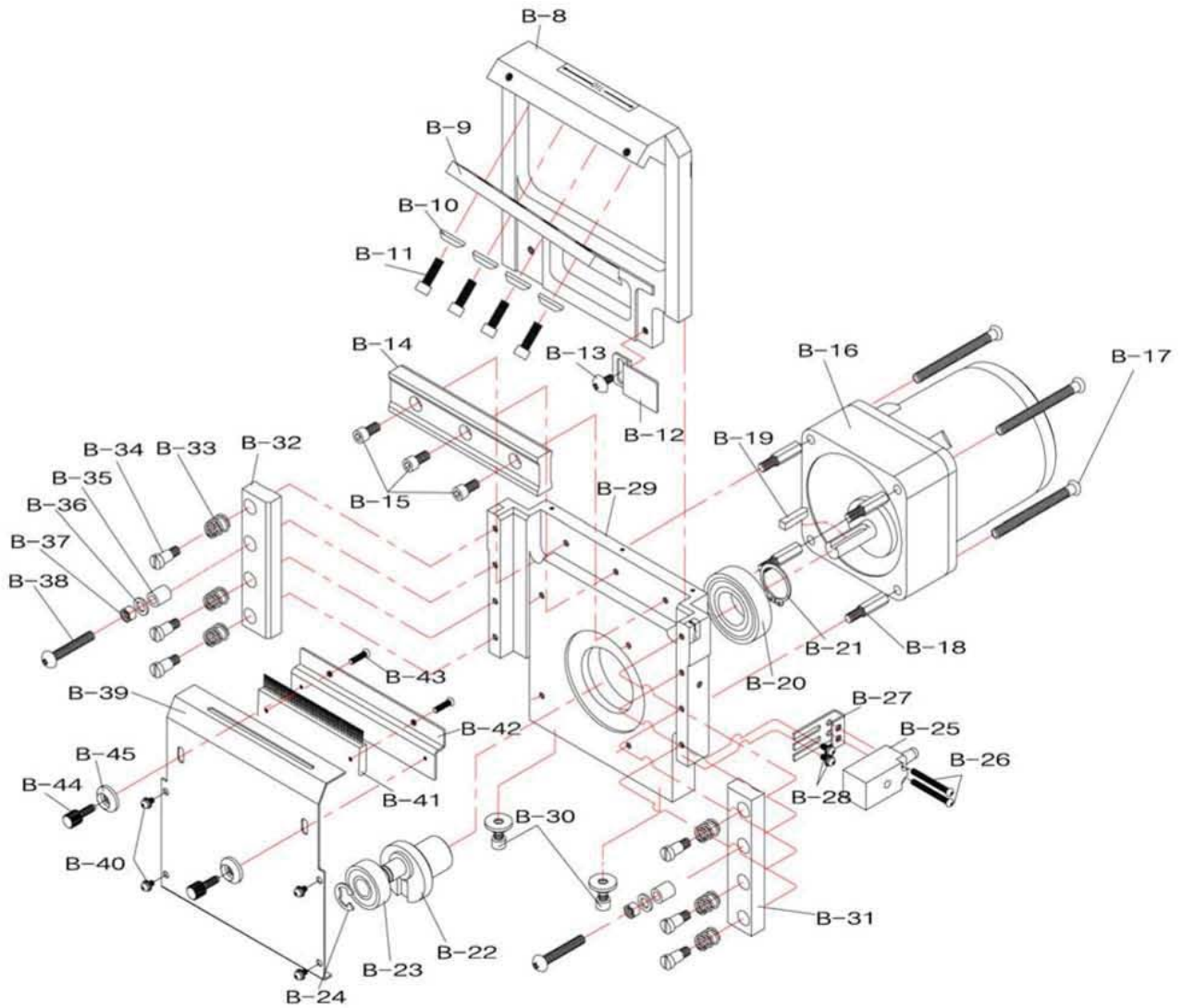
# TBC-50S Part Drawing A (Feeding part)



## 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)

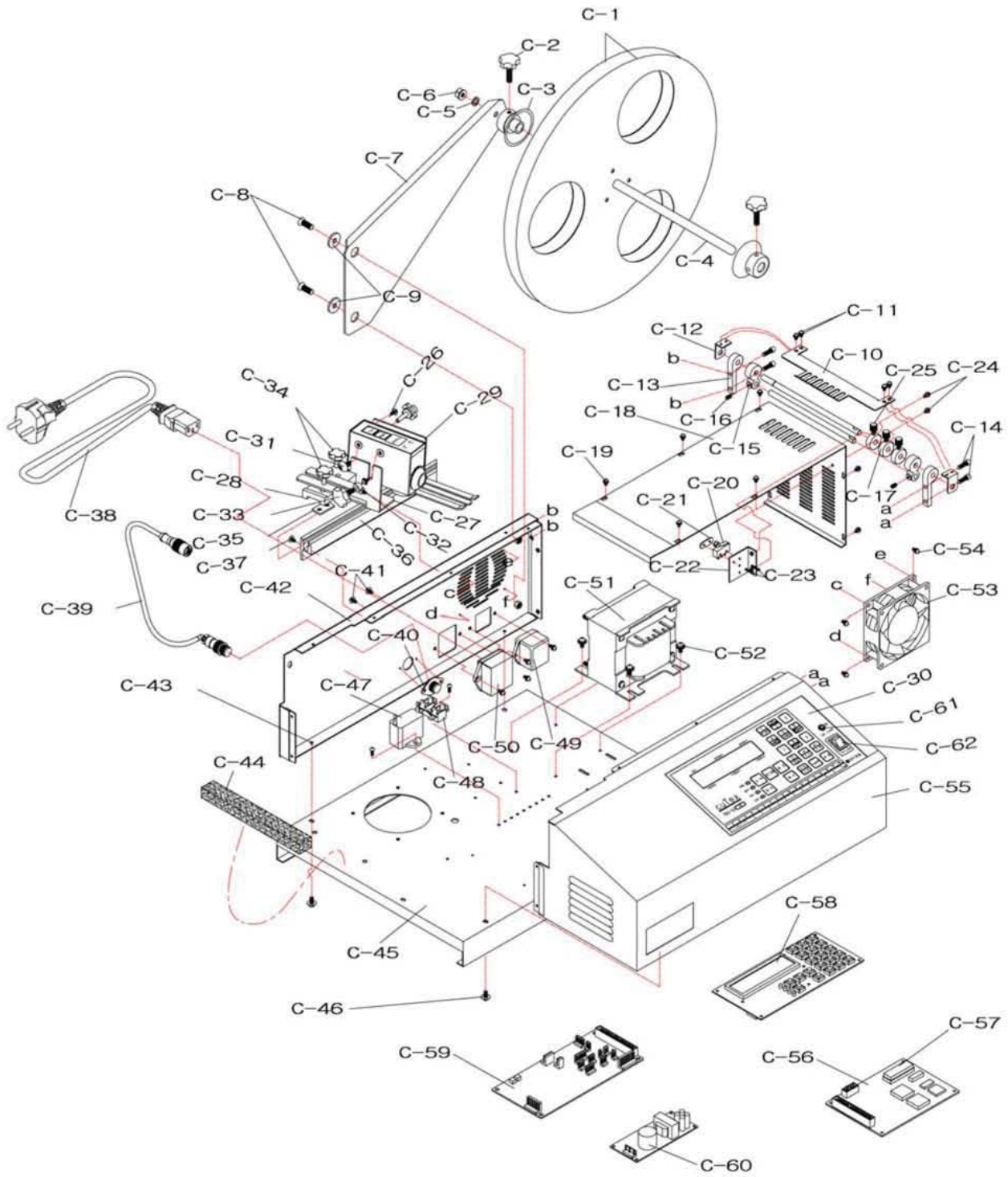


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## TBC-50S Part List B (Cutting part)

| 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]<br>>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]<br>>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 !!<br>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<br>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]<br>>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) :<br/>press <b>SET+SHIFT/ESC</b> buttons and <b>RESET</b> button at the same time.<br/>(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 <a href="#">initialize the controller</a> , due to error message, if you cannot do initialization, please press "SHIFT/ESC' button to escape error message screen and then <a href="#">initialize the controller</a> . |                                      |                            |  |