

TBC50 – Non-Adhesive Cutter

Instruction Manual

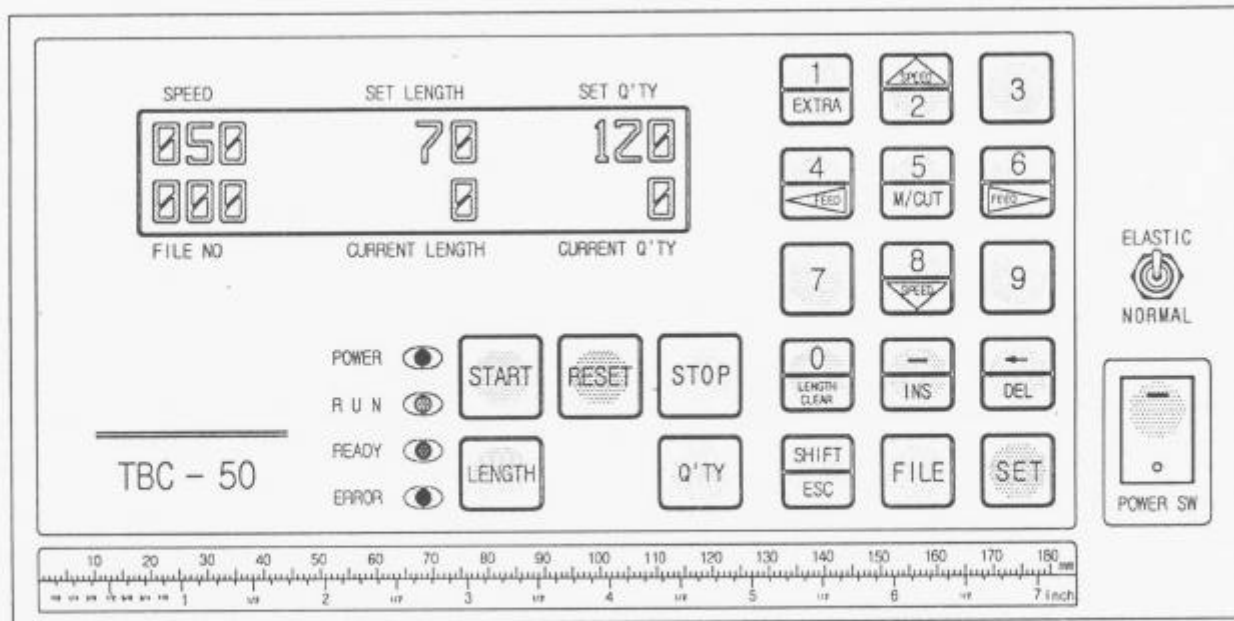


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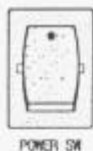
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How to operate TBC-50



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

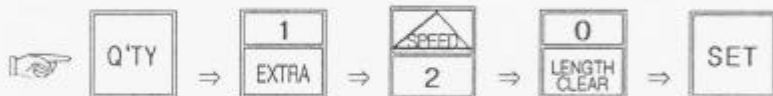
▷ Turn on the POWER SW.



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



▷ Set cutting quantity 120 pcs.



▷ Set the switch of cutting material.



※ Upside : elastic material,
Downside : normal material(non-elastic material including label)

▷ Press START button.



2. Key functions



: 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.)



: Function for label cutting

3. Specification

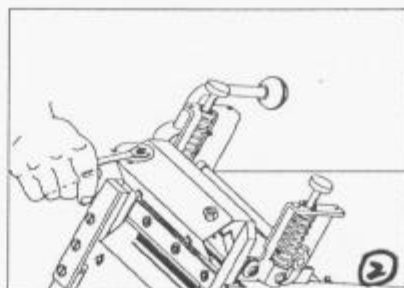
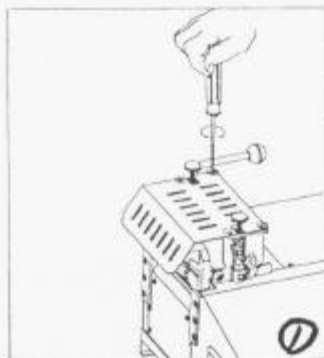
Model Name	Main Cutting Materials	Cutting Knife	Power Supply	Max. Cutting Width	Range of Cutting Length	Cutting Q'ty/min. (Length: 50mm)	Machine Size (Net Weight)	Packing Size (Gross weight)
TBC-50 (Belt Loop cutter)	Belt Loop, String, Tube, VELCRO tape	Cold	AC110/220V 50/60Hz	110mm	1mm~99,999mm	120~140 cuts	850×320×380 (18.6kgs)	535×430×370 (21.4kgs)

4. Caution for use

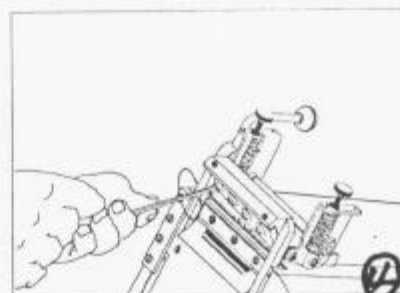
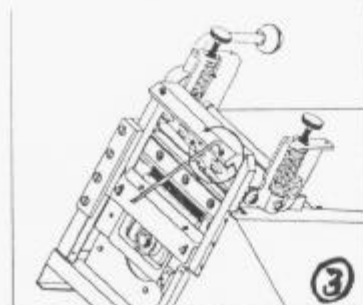
- Before use, please confirm the voltage and make ground(earth) connection. (Static-electricity will be reduced to a half.)
- Do not access hands or any object close to the working knife. (for safety)
- When the knife blade becomes dull, please use it after grinding with the grinding machine. (Please 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 Take off anti-static device by 8mm-spanner for taking off upper knife.

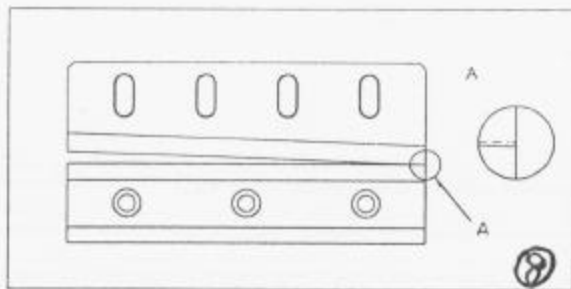
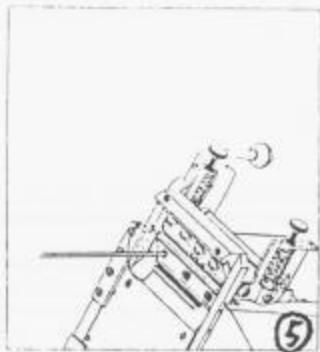


- ③ Unscrew 2 control bolts of upper knife by 2.5mm-wrench.(Don't take off.)
- ④ Unscrew 4 fixing bolts by 4mm-wrench and take off upper knife.



- 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.



Mount of roll

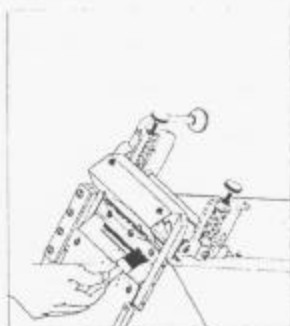
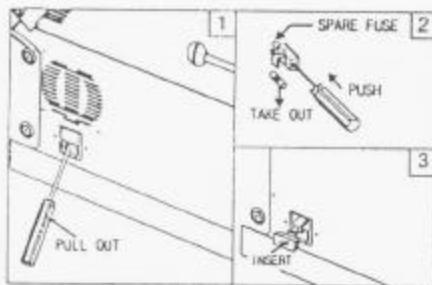
Fix the roll triangle by 4mm-wrench.

Exchange of fuse

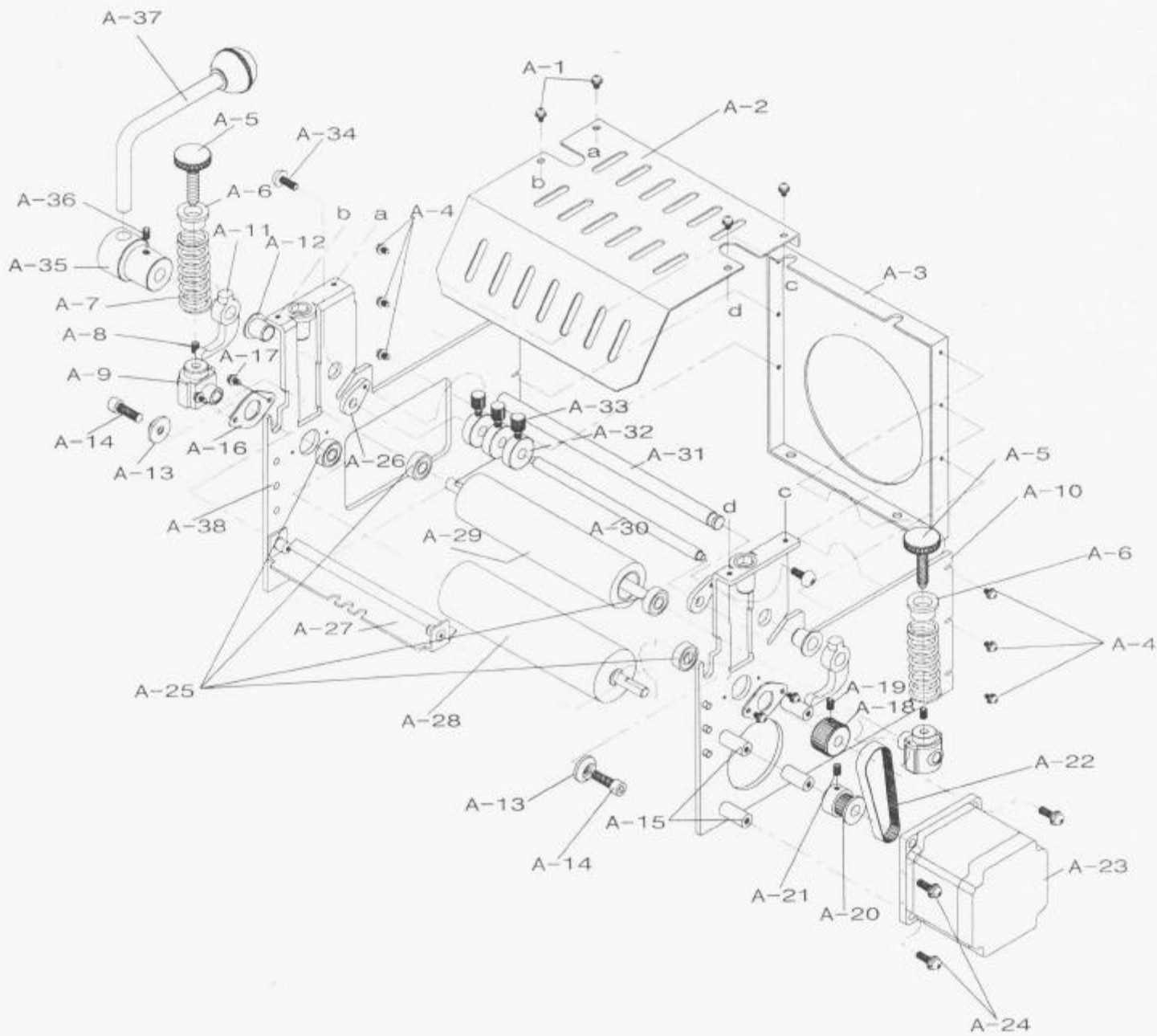
Take off the power plug and exchange as picture.

Cleaning of anti-static brush

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



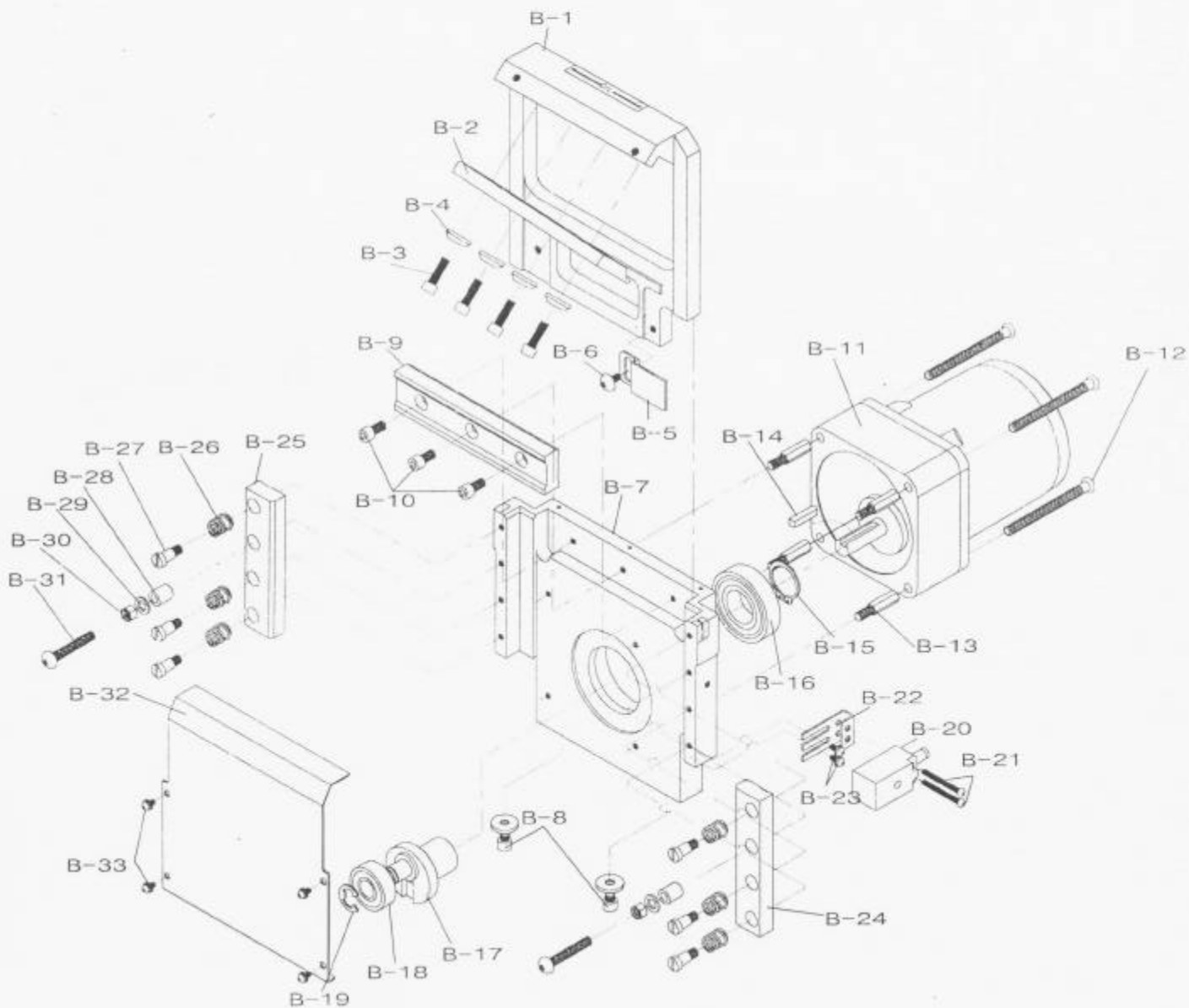
Part Drawing A of TBC-50 (Feeding part)



Part List A of TBC-50 (Feeding part)

Part No.	Description	Part No.	Description
A-1	Clamping Bolt(M3×5L)	A-21	Detent Screw(M3×6L)
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(M3×5L)	A-24	Clamping Bolt(M4×13L)
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(M4×6L)	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×14L)	A-34	Round Screw(M4×5L)
A-15	Tie Bar of Stepping Motor	A-35	Lever Bracket
A-16	Bearing Cover	A-36	Detent Screw(M5×5L)
A-17	Clamping Bolt(M3×5L)	A-37	Lever
A-18	Feed-timing Gear(MXL30T)	A-38	Left Roller Bracket
A-19	Detent Screw(M4×6L)		
A-20	Drive-timing Gear(MXL20T)		

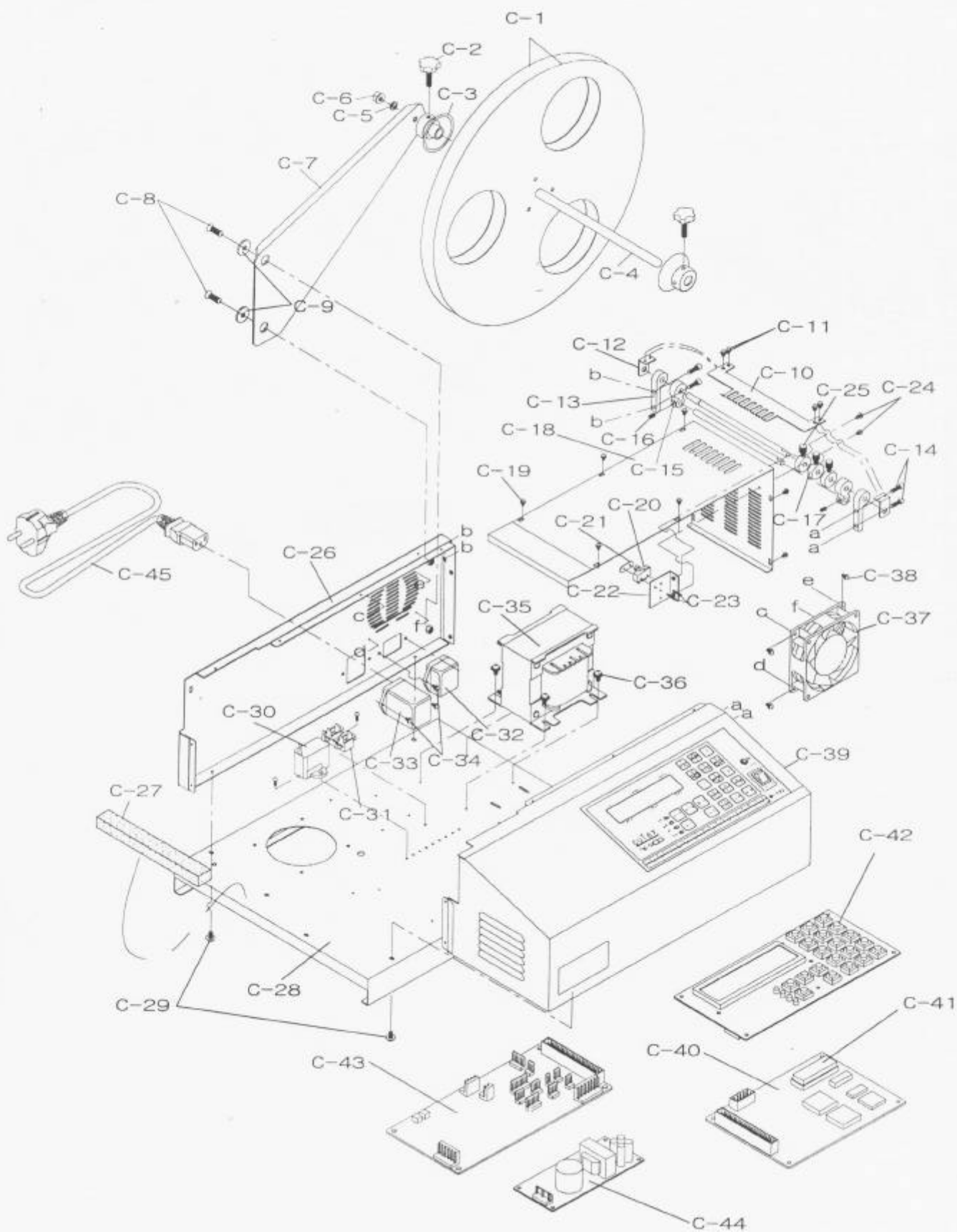
Part Drawing B of TBC-50 (Cutting)



Part List B of TBC-50 (Cutting part)

Part No.	Description	Part No.	Description
B-1	Upper Knife Case	B-21	Clamping Bolt(M3×18L)
B-2	Upper Knife	B-22	Clamping Bracket
B-3	Wrench Bolt(M5×15L)	B-23	Clamping Bolt(M3×5L)
B-4	Neck Washer	B-24	Right Pressure Plate
B-5	Counting-sensor Bracket	B-25	Left Pressure Plate
B-6	Clamping Bolt(M4×6L)	B-26	Pressure Spring
B-7	Lower Knife Case	B-27	Clamping Bolt of Pressure Plate
B-8	Wrench Bolt(M5×15L)	B-28	Urethane Bush
B-9	Lower Knife	B-29	Tension-control Washer
B-10	Wrench Bolt(M5×10L)	B-30	Tension-control Nut
B-11	Motor+Reduction Gear	B-31	Tension-control Bolt
B-12	Clamping Bolt(M5×42L)	B-32	Front Cover
B-13	Motor Supporter	B-33	Clamping Bolt(M3×5L)
B-14	Motor Key		
B-15	Snap Ring		
B-16	Ball Bearing(#6004)		
B-17	Crank Bundle		
B-18	Ball Bearing(#6000)		
B-19	E-Ring		
B-20	Counting Sensor		

Part Drawing C of TBC-50(Other Part)



Part List C of TBC-50 (Other parts)

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

Trouble-shooting of TBC-50 series

No	Troubles		Applicable model	Causes & Measures
1	No power supply		All models	<ul style="list-style-type: none"> - Check if electric cord is connected well. - Check if the fuse blows out or not.
2	Power is on, but no work	Feeding roller doesn't work.	All models	<ul style="list-style-type: none"> - Check if there is inserted any alien substance in roller. - If current length on display is changed, exchange drive board. - If current length on display is not changed, exchange Control board(MB).
		Knife doesn't work.	All models	<ul style="list-style-type: none"> - Check if pressure plates of upper knife are too much fastened or not.
		LCD display doesn't work.	All models	<ul style="list-style-type: none"> - After opening the cover, check the connection. (especially between Operation & MB board)
		All functions don't work	All models	<ul style="list-style-type: none"> - Check if auto-stop device lies down. If any, raise it up.
3	Material is not cut.		Hot cutter (H, LH, SH, HX)	<ul style="list-style-type: none"> - Check if temperature goes up to set-degree. - Check if knife blades are even(parallel).
4	Material is cut onesidedly.		All models	<ul style="list-style-type: none"> - Check if blades are damaged or worned. - 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)
5	Cut-length is different from set-length.		All models	<ul style="list-style-type: none"> - Test cutting after loosening material from the reel by hand or attaching feeding device.
6	It cuts before the cutting line of labels.		Label cutter (S, SH)	<ul style="list-style-type: none"> - Move the sensor towards knife side as long as the difference by pushing.
7	It cuts after the cutting line of labels.		Label cutter (S, SH)	<ul style="list-style-type: none"> - Move the sensor towards counter-knife side as long as the difference by pushing.
8	ERROR on LCD & LED	ERROR CODE [064] >Sensor check Er	Label cutter (S, SH)	<ul style="list-style-type: none"> - Trouble in Mark sensor → • Check if the sensor is connected well or not. • Check if the sensor is adjusted well or not. (FILE NO 001) • Check if it is label problem or not.
		ERROR CODE [065] >CUT I/O Error!	All models	<ul style="list-style-type: none"> - Trouble in cutting motor or cutting sensor → • Upper knife moves 1~3 sec. and ERROR on display. Check the connection of cutting sensor. If not, exchange the cutting sensor. • Upper knife doesn't move and ERROR on display. Exchange the cutting motor or drive board.
		STOP INPUT !! CHECK STOP INP!	All models	<ul style="list-style-type: none"> - Auto stop device is pressed down or shortage. → raise up the device and check shortage.
		(C)ACORD CTRL-OP AMC-T3KA VER1.7D	All models	<ul style="list-style-type: none"> - Bad connected ROM → Press ROM by hand or connect it again. (If not, change MB board)
		ERROR CODE[065] >CHECK CODE[003]	All models	<ul style="list-style-type: none"> - Change of FILE 003 in program by noise or mis-operation → Initialize the controller. ※ How to Initialize(programs to be initial) : press SET+SHIFT/ESC buttons and RESET button at the same time. (Press RESET later than other two keys.)
9	Operator feels electric current in touch of machine.		All models	<ul style="list-style-type: none"> - Connect the earth cord(green) to any bolt of backside of machine.

3. Specification

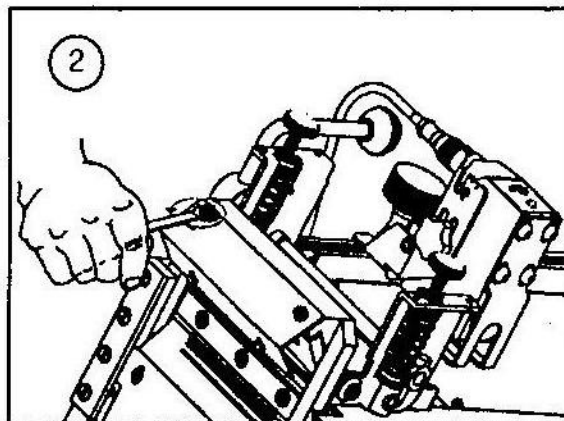
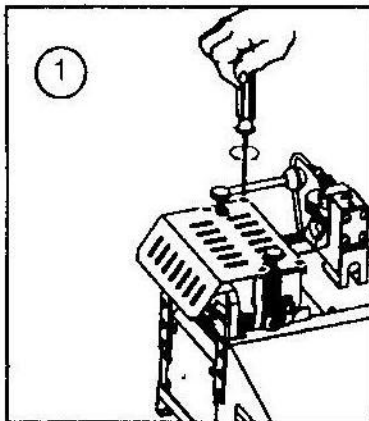
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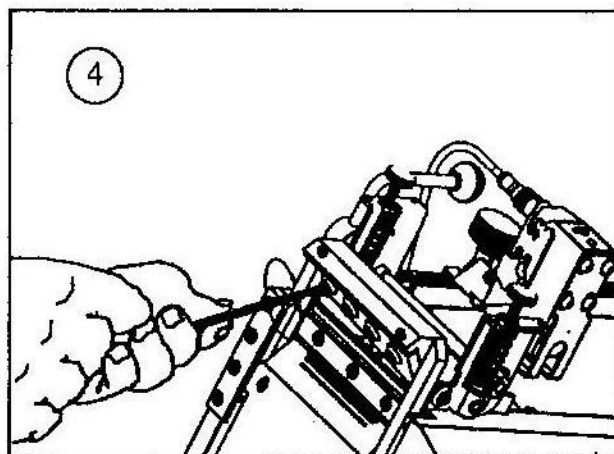
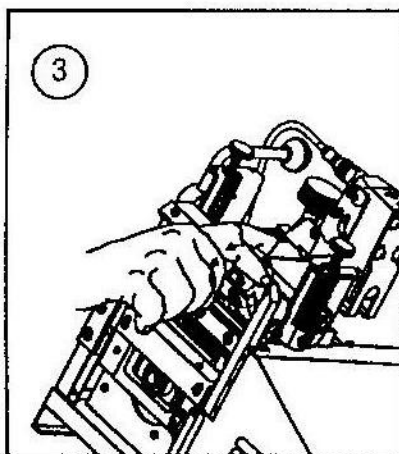
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EXCHANGE OF KNIFE

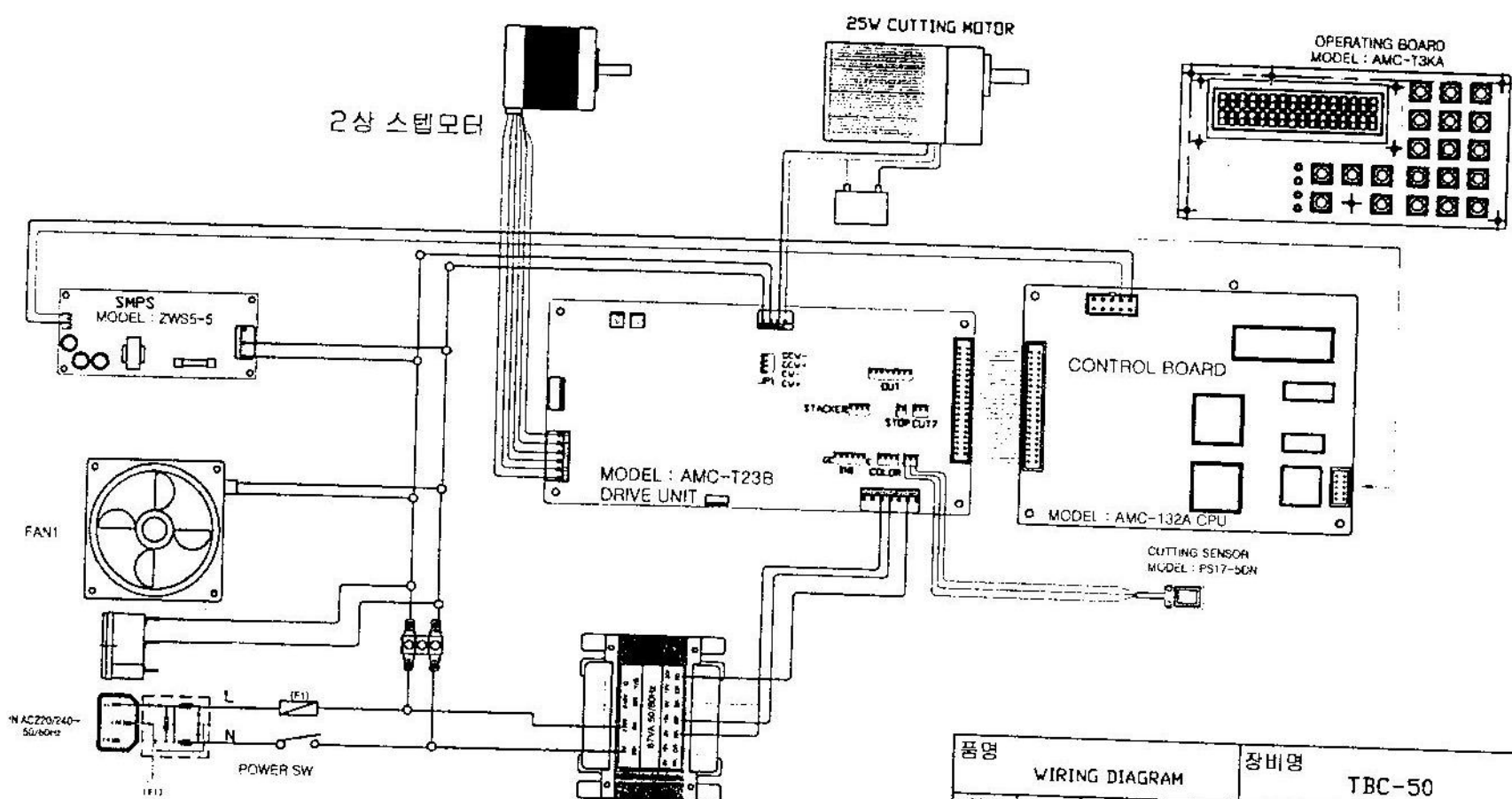
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- ⑥ Vice versa, install new lower knife and fasten it firmly.
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- ⑧ By soft touch of M/CUT button, if right bottom of upper knife contacts top of lower knife, screw the control bolt of upper knife slightly.



품명	WIRING DIAGRAM			장비명	TBC-50	
설계	검도	승인	날짜	파트번호		
			03년 5월 2일			
				도면번호	A3	
					측도	