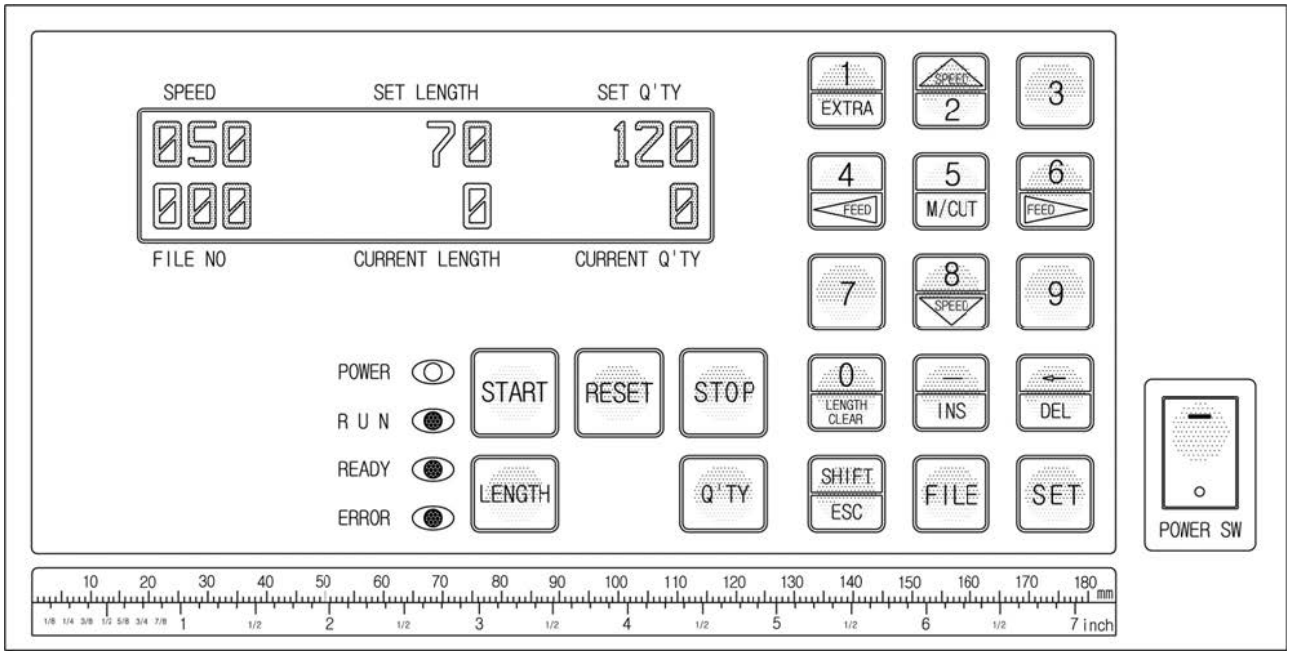
Heavy Duty Automatic Pneumatic Hot Knife Cutter

Experts in Wire/Cable Management Solutions

Hilltop Products Ltd - www.hilltop-products.co.uk - Tel: +44 1942 723101 - Email: sales@hilltop-products.co.uk

How to operate



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

▹ Turn on the POWER SW.

▹ Set the temperature.(It is normally used at 250°~350℃. About 5 minutes after turn-on, it will be reached to set-temperature with the red LED turned off automatically.)

※ Caution : When a work is over, set the temperature at zero and turn the cooling fan 10 minutes or so and power off.

▹ Adjustment of cutting time

Set the FILE NO. from 0 to 9 according to the character of materials.

FILE NO	0	1	2	3	4	5	6	7	8	9	Remarks
CUTTING TIME	0.3sec	0.5sec	0.7sec	0.9sec	1.0sec	1.2sec	1.3sec	1.4sec	1.5sec	1.6sec	small webbing : 0 seat-belt : 4

FILE NO : 0~1

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

☞ LENGTH ⇒ 7 ⇒ 0 LENGTH CLEAR ⇒ SET

▹ Set cutting quantity.

☞ Q'TY ⇒ 1 EXTRA ⇒ SPEED 2 ⇒ 0 LENGTH CLEAR ⇒ SET

FILE NO : 2~9

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

☞ [LENGTH] ⇒ [SET] ⇒ [7] ⇒ [0 / LENGTH CLEAR] ⇒ [SET] ⇒ [SHIFT / ESC]

▷ Set cutting quantity.

☞ [Q'TY] ⇒ [SET] ⇒ [1 / EXTRA] ⇒ [SPEED / 2] ⇒ [0 / LENGTH CLEAR] ⇒ [SET] ⇒ [SHIFT / ESC]

▷ Connect the air-compressor(capacity: 5 ~ 7kgf/cm^2)

▷ Press START button.

☞ [START]

2. Key functions

[0 / LENGTH CLEAR] : Current length on display will be back to “0” at a stop.

[FILE] : Adjustment of cutting-time for perfect melting.

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

[5 / M/CUT] : 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.

[1 / EXTRA] : Cutting additional one.

[SHIFT / ESC] : Restoring to normal condition in ERROR(red LED) and inputting parameter/program.

[4 / FEED] [6 / FEED] : to move the roller manually for mounting the material on the machine or for feeding it forwards or backwards.

[SPEED / 2] – Speed up (The current speed appears on the left-upside of LCD display with "%". Normal speed : 50%, Maximum speed : 100%)

8
SPEED – 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.**

←
DEL : to correct wrong data.

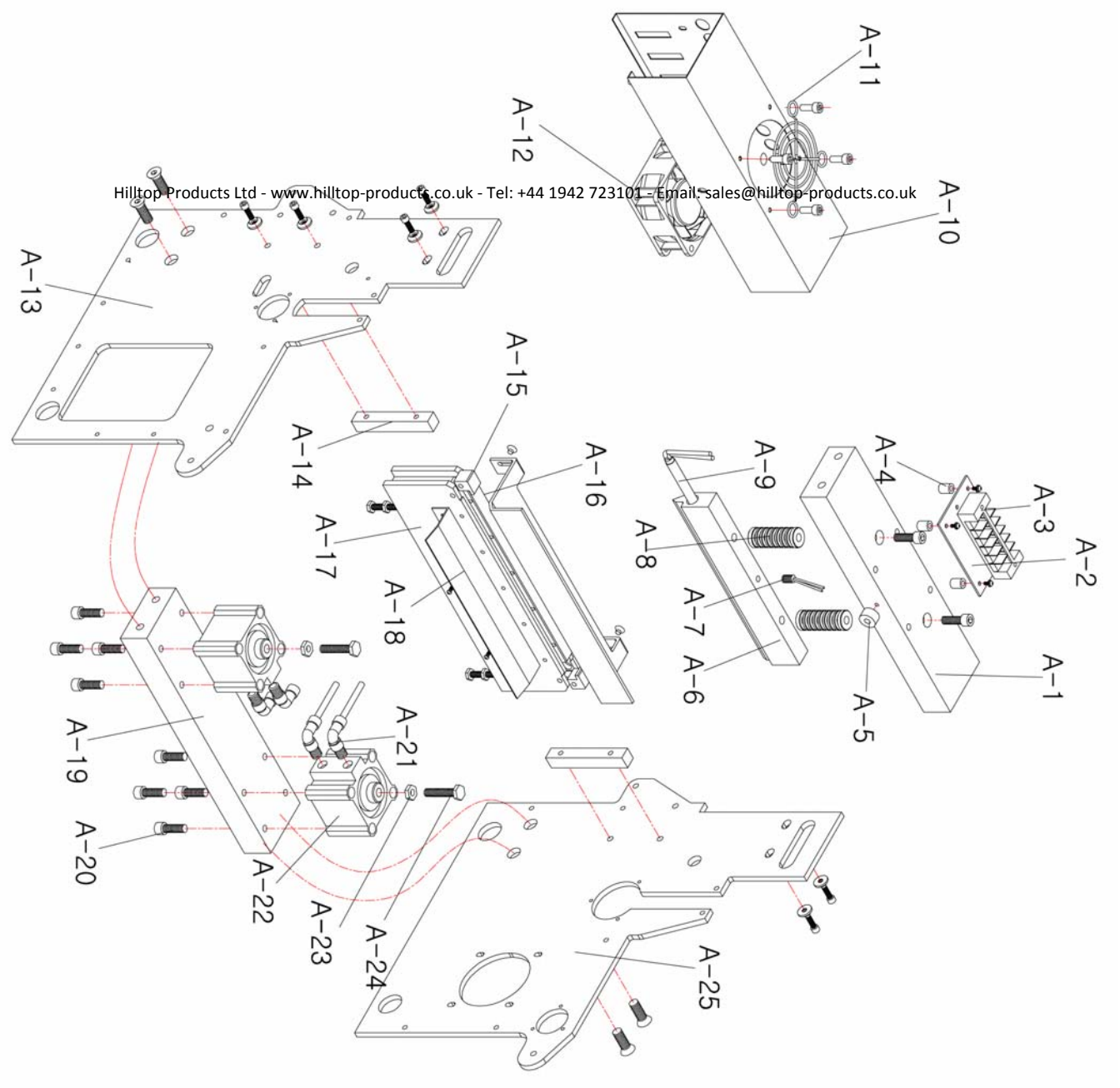
3. Specification

Model No.	Cutting Material	Knife	Power Supply	Max. Cutting Width	Range of Cutting Length	Cutting speed (length : 1M)	Machine Size (Net Weight)	Packing Size (Gross Weight)
HTP-HEAVY-DUTY-AUTO-HOT-KNIFE	Webbing, Seat Belt	Hot	AC110/220V, 50/60Hz	200mm	30mm ~ 300M	18 ~ 30 cuts	510×690×940 (85kgs)	830×560×770 (86kg)

4. Caution for use

- Before use, please confirm the voltage and make the ground(earth) connection.
- **In case of cutting double or triple rolls at the same time, make materials fed oppositely(⤻ & ⤼), to prevent slipping by roll tension.**
- 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.)

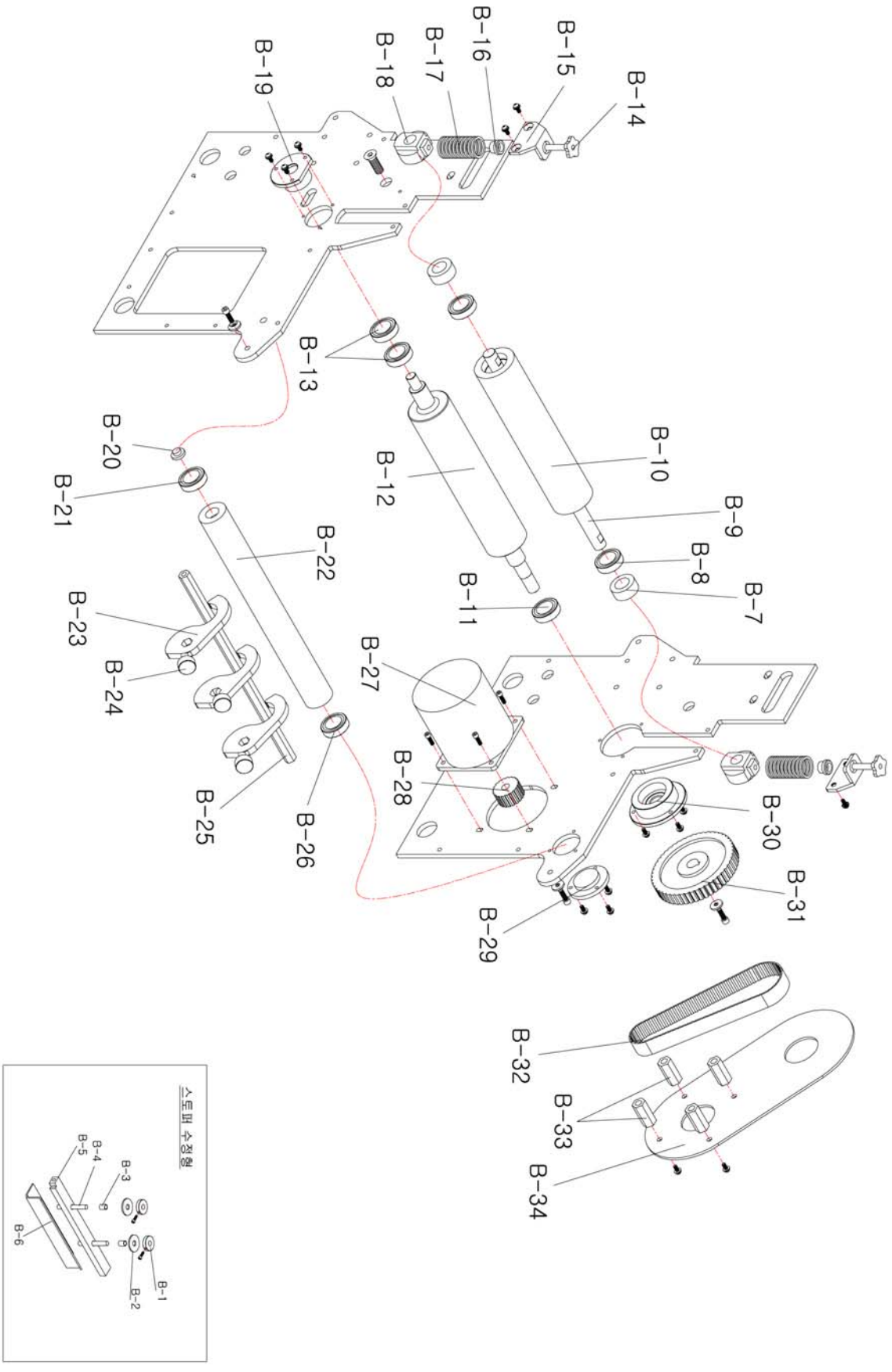
Drawing A



Part List A

Part No.	Description	Part No.	Description
A-1	UPPER KNIFE MAIN FRAME	A-21	TUBE FEEDING
A-2	TERMINAL HEAT PLATE	A-22	AIR CYLINDER
A-3	TERMINAL	A-23	CYLINDER CONTROL-NUT
A-4	CLAMPING BOLT	A-24	CYLINDER CONTROL-BOLT(M10)
A-5	STAINLESS COVER BRACKET	A-25	LEFT FRAME
A-6	UPPER KNIFE		
A-7	TEMPERATURE SENSOR		
A-8	UPPER KNIFE BRACKET		
A-9	HEATER		
A-10	UPPER KNIFE COVER		
A-11	COOLING FAN SAFETY COVER		
A-12	COOLING FAN		
A-13	RIGHT FRAME		
A-14	RAM GUIDE		
A-15	PRESSURE PLATE CLAMP		
A-16	HEATING PRESSURE PLATE		
A-17	PRESSURE FRAME		
A-18	ROLLER SPACE PLATE		
A-19	CYLINDER FRAME		
A-20	CYLINDER CLAMPING BOLT(M6)		

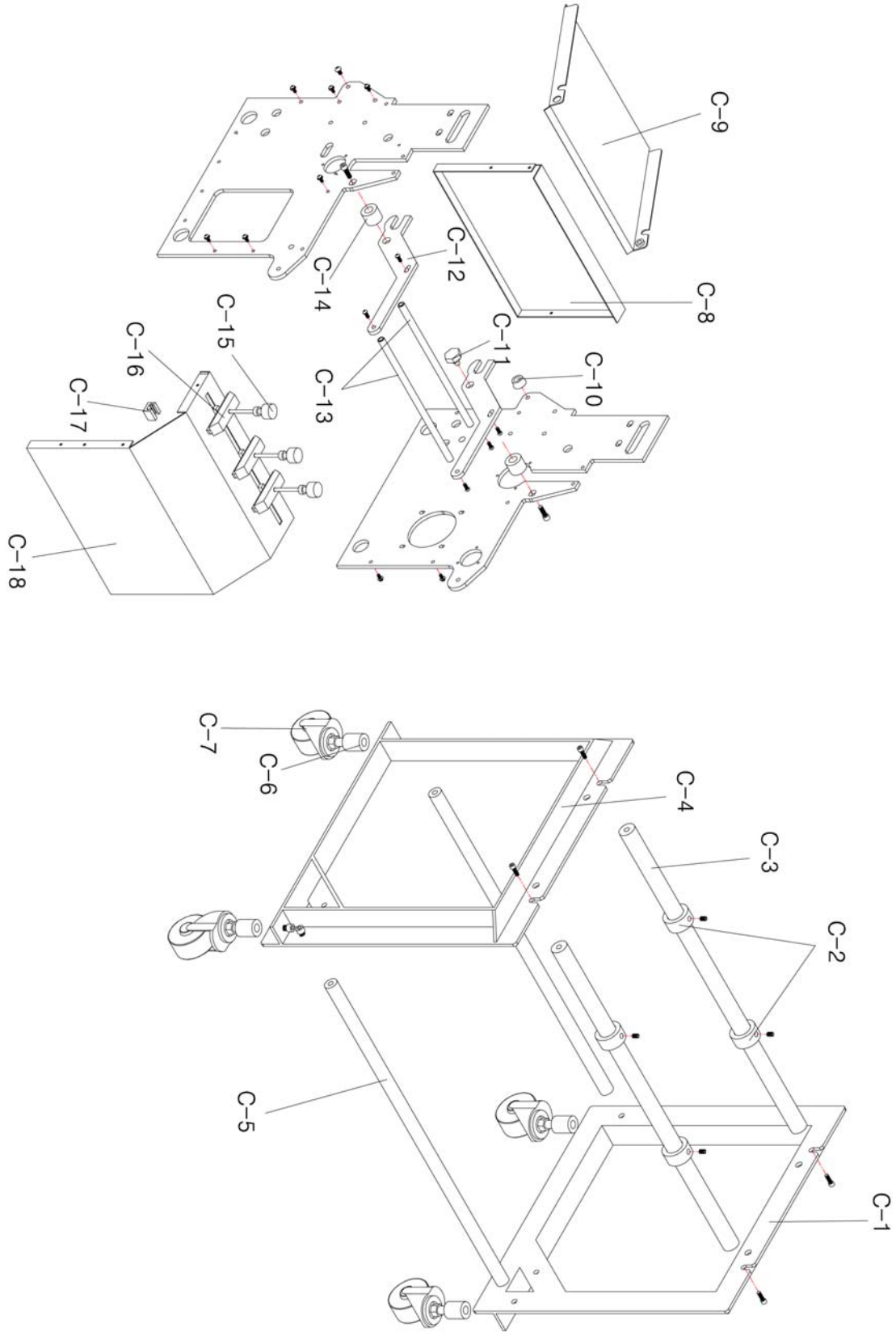
Part Drawing B



Part List B

Part No.	Description	Part No.	Description
B-1	STOPPER CONTROL RING	B-21	BEARING
B-2	SILICON WASHER (ANTI-NOISE)	B-22	GUIDE ROLLER
B-3	OILESS	B-23	REAR GUIDE
B-4	STOPER CONNECTION SHAFT	B-24	KNOB HANDLE BOLT
B-5	STOPPER BRACKET	B-25	REAR GUIDE PIN
B-6	STOPPER	B-26	BEARING
B-7	ACETAL CLAMPING RING	B-27	STEPPING MOTOR
B-8	BEARING (#6002)	B-28	TIME GEAR(S)
B-9	UPPER ROLLER SHAFT	B-29	ROLLER BEARING HINGE
B-10	UPPER ROLLER	B-30	ROLLER BEARING HOUSING (LEFT)
B-11	BEARING(#6202)	B-31	TIME GEAR (L)
B-12	LOWER ROLLER	B-32	TIMING BELT (200XL)
B-13	BEARING (#6202)	B-33	STEPPING MOTOR SUPPORT
B-14	PRESSURE-CONTROL BOLT	B-34	STEPPING MOTOR GEAR COVER
B-15	ROLLER TENSION BRACKET		
B-16	SPRING CAP		
B-17	PRESSURE CONTROL SPRING		
B-18	UPPER ROLLER GUIDE BLOCK		
B-19	ROLLER BEARING HOUSING (RIGHT)		
B-20	BEARING HINGE		

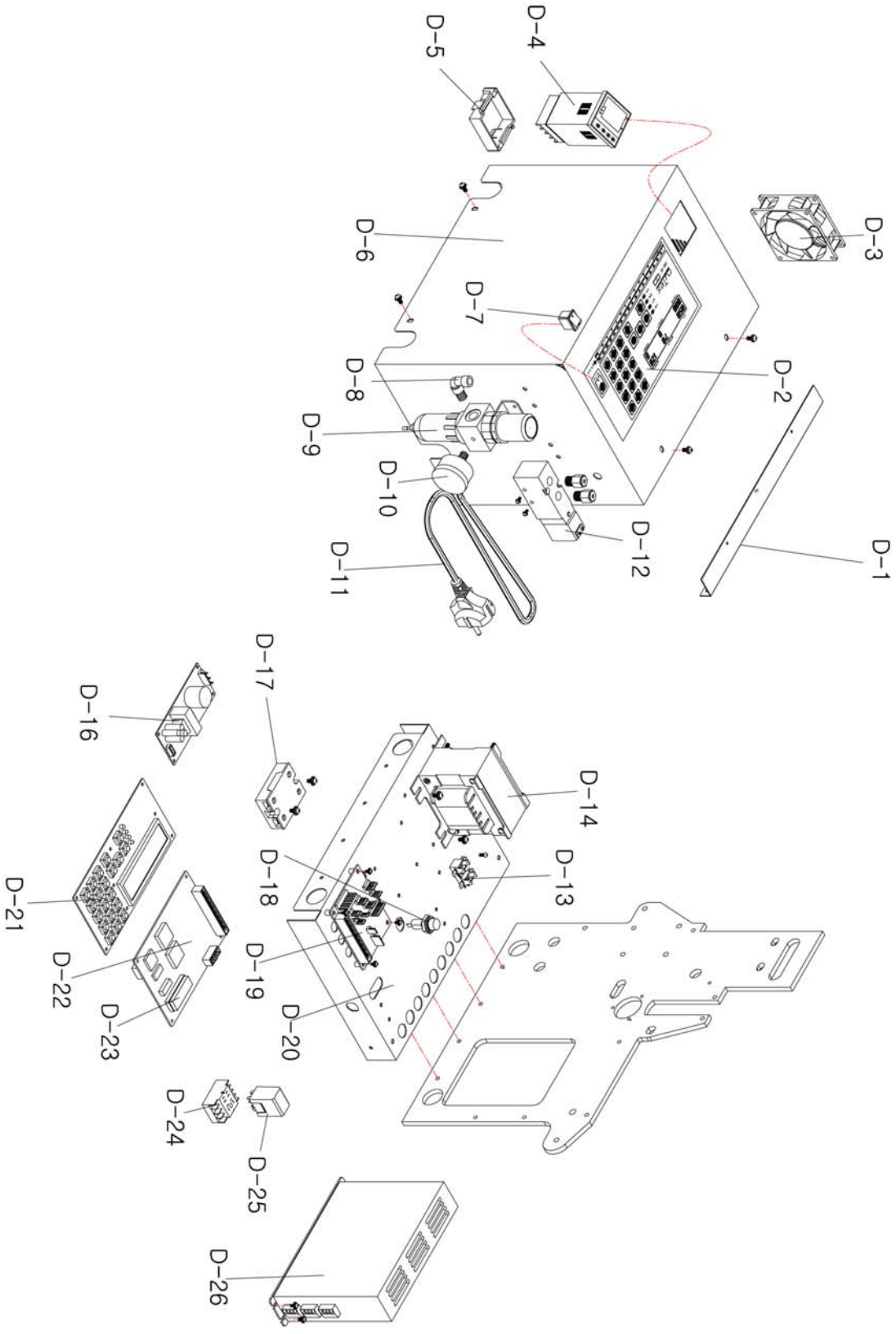
Part Drawing C



Part List C

Part No.	Description	Part No.	Description
C-1	ANGLE FRAME (LEFT)		
C-2	FRAME CLAMPING RIING		
C-3	ANGLE SHAFT A		
C-4	ANGLE FRAME (RIGHT)		
C-5	ANGLE SHAFT B		
C-6	WHEEL CLAMPING NUT		
C-7	WHEEL		
C-8	FRONT COVER		
C-9	TAPE GUIDE		
C-10	RUBBER PAD		
C-11	LEVER CLAMPING BOLT (M8)		
C-12	LEVER		
C-13	LEVER SHAFT		
C-14	LEVER CLAMPING NUT		
C-15	GUIDE BOLT		
C-16	GUIDE		
C-17	CUIDE LOCKING BOLT		
C-18	REAR COVER		

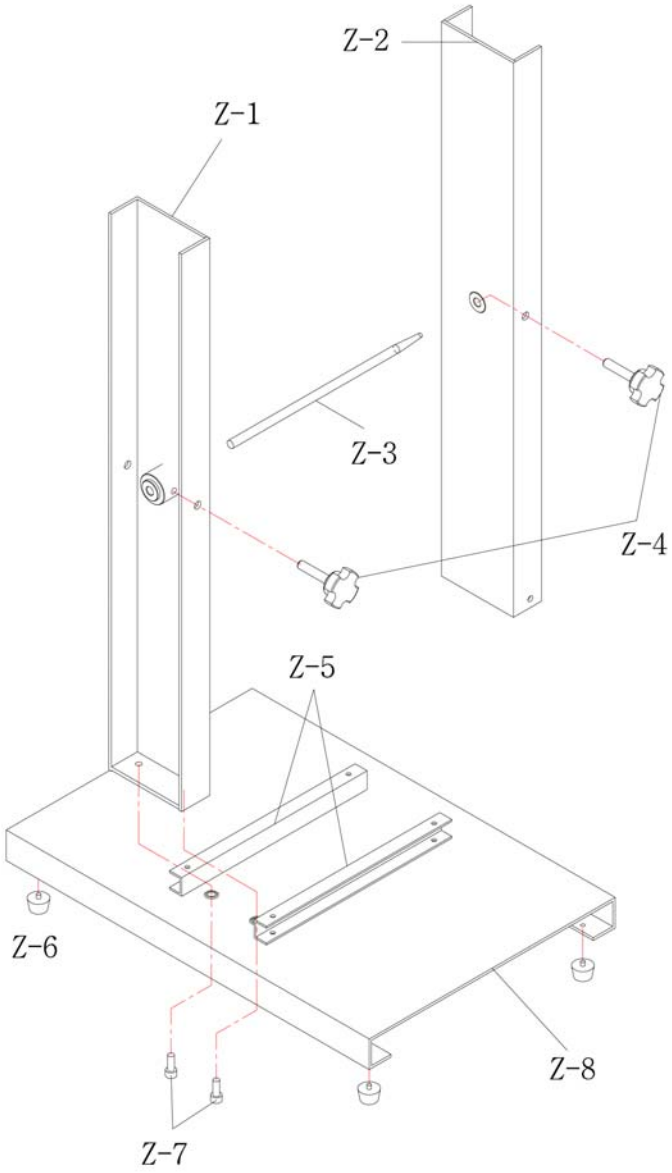
Part Drawing D



Part List D

Part No.	Description	Part No.	Description
D-1	CONTROL SIDE BASE	D-22	CONTROL BOARD (MB)
D-2	PANEL	D-23	ROM
D-3	COOLING FAN	D-24	RELAY SOCKET
D-4	TEMPERATURE CONTROLLER	D-25	RELAY
D-5	TEMPERATURE CONTROLLER SOCKET	D-26	DRIVER (BLACK BOX)
D-6	CONTROL CASE		
D-7	SWITCH		
D-8	TUBE FEEDING		
D-9	FILTER & REGULATOR		
D-10	PRSSURE GAUGE		
D-11	POWER CORD		
D-12	SOLENOID VALVE		
D-13	TERMINAL		
D-14	TRANSFORMER		
D-16	SMPS (POWER SUPPLY)		
D-17	SSR (SOLID STATE RELAY)		
D-18	FUSE BOX		
D-19	DRIVE BOARD (DR)		
D-20	CONTROL BASE		
D-21	OPERATION BOARD (OP)		

REEL HANGER



PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
Z-1	ROLL MAIN BARCKET	Z-8	ROLL HANGER BASE
Z-2	ROLL MOVING BRACKET		
Z-3	ROLL CLAMPING SHAFT		
Z-4	ROLL CLAMPING BOLT		
Z-5	ROLL MOVING BRACKET GUIDE		
Z-6	ROLL CLAMPING RUBBER PAD		
Z-7	ROLL CLAMPING BOLT		

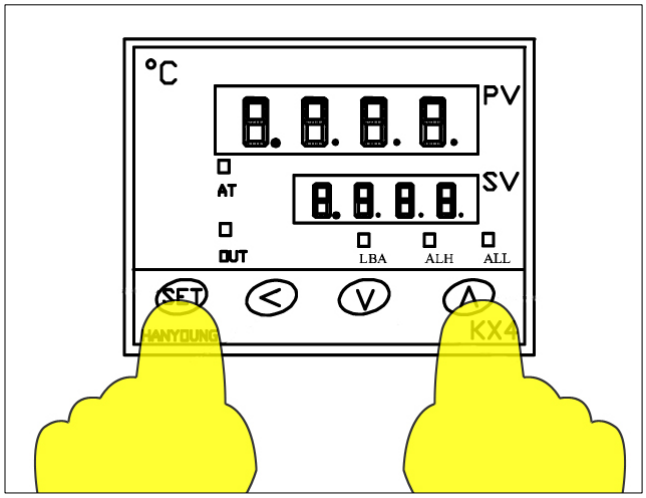
HOW TO DO AUTO-TUNING

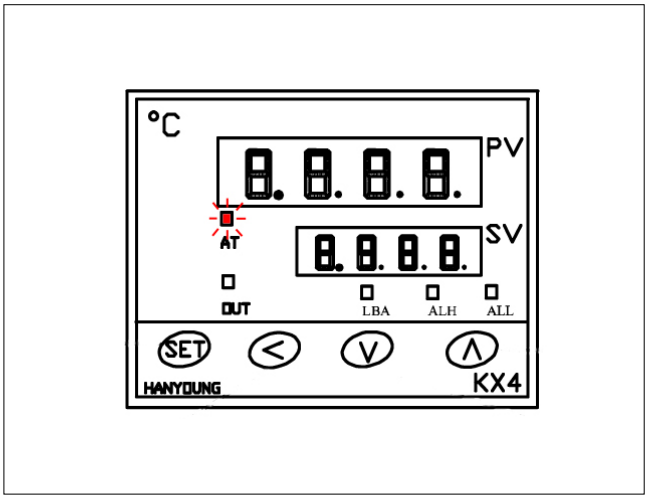
After changing a part or parts (temp. sensor or heater or temp. controller), you can experience that there are much temperature-deviation between set temperature(SV) and present temperature(PV).
In this case, by auto-tuning, you can reduce temperature-deviation between SV and PV.

Please do follow steps for auto-tuning.

- Referring manual, please set your common temperature. (ex, 300℃)

- After PV's reaching set temperature, press "SET" and "∧" simultaneously.
(referring to below image(left))
If so, with AT lamp blinks, auto-tuning begins.



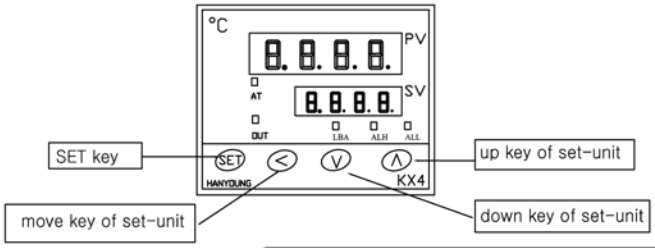


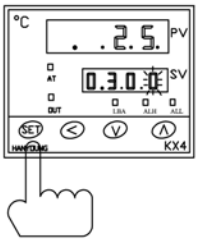
- After finishing auto-tuning, AT lamp will turn off.

- While auto-tuning, if you want to stop auto-tuning, plesae press "SET" and "∧" simultaneously. If so, AT lamp turns off and auto-tuning stops.

- If you change SV (set temperature) during auto-tuning, auto-tuning stops and temp. controller will use previous parameter.

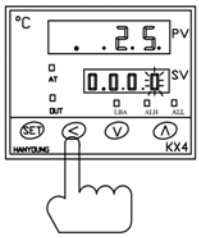
(How to use Temperature Controller KX4)



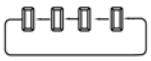


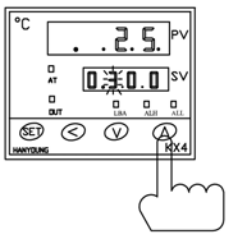
When you power on the controller, PV shows current room temperature
and SV shows set temperature.
Recommendation is 250℃～350℃.
After turn-on & set, within 10 minutes, it reaches to set temperature.

① You can enter set mode by pressing (SET) key, you may see one cipher blinks.
It means it can be changed.

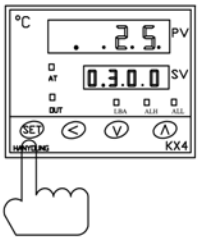


② By pressing (<) key, you can move between numbers of four ciphers.
as follows.





③ Set desirous temperature by pressing (∧) and (∨) keys.(i.e :300℃).
Set-temperature will be increased by (∧) key and it will decreased by (∨) key.



④ After finshing setting, press (SET) key once more. Then, it stops blinking.
And the controller will return to auto-tuning mode.

⚠ CAUTION
At beginning, when you power on, there will be some variation
in temperature. But it will be automatically reached to the set
temperature soon.

Trouble-shooting

No	Troubles		Appicable model	Causes & Measures
1	No power supply		All models	- 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	- 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	- Check if pressure plates of upper knife are too much fastened or not.
		LCD display doesn't work.	All models	- After opening the cover, check the connetion. (especially between Operation & MB board)
		All functions don't work	Al models	- Check if auto-stop device lies down. If any, raise it up.
3	Material is not cut.		Hot cutter	- Check if temperature goes up to set-degree. - Check if knife blades are even(parallel).
4	Material is cut onesidedly.		All models	- Check if blades are damaged or weared. - 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	- 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	- Move the sensor towards knife side as long as the difference by pushing.
7	It cuts after the cutting line of labels.		Label cutter	- 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	- 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	- 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	- 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	- Bad connected ROM → Press ROM by hand or connect it again. (If not, change MB board)
		ERROR CODE[065] >CHECK CODE[003]	All models	- 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	- Connect the earth cord(green) to any bolt of backside of machine.
10	After exchange ROM, you should do initialize the controller, due to error message, if you cannot do initialization, please press "SHIFT/ESC' button to escape error message screen and then initialize the controller.			