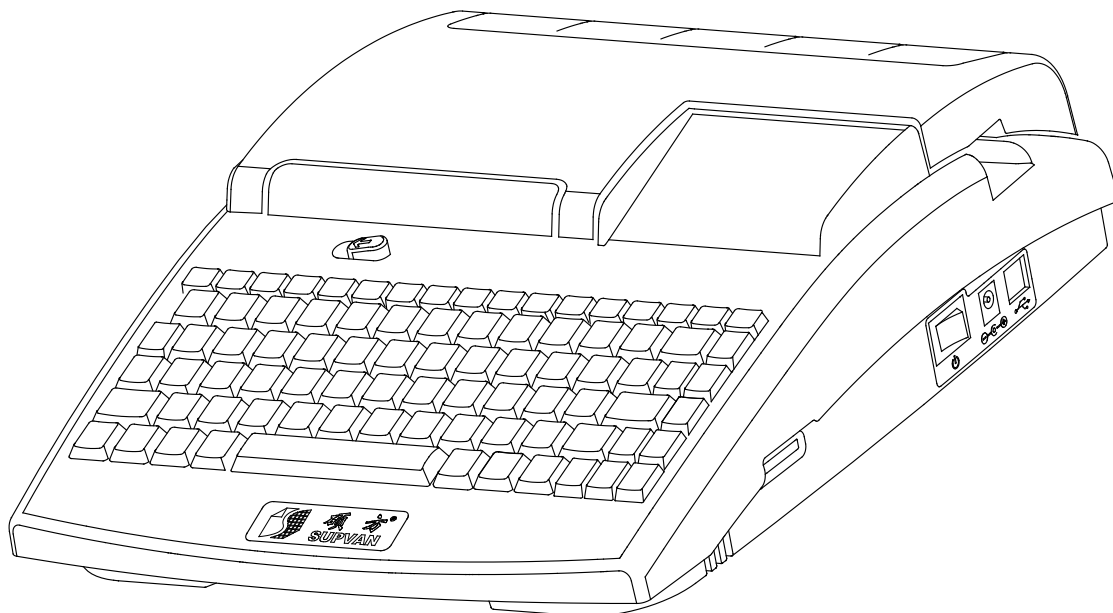


SUPVAN



TP80E

Supvan Tube Printer

Instruction

Supvan Technology (Beijing) Co., Ltd.

Contents

Declaration	3
Brief Introduction of Special Functions	3
Precautions	4
Chapter 1 Appearance Description and Configuration	6
1.1 Appearance Part Name of Supvan Tube Printer	6
1.2 LCD Display Description	7
1.3 Standard Configuration	8
Chapter 2 Push-To-Talk (PTT) – Quick Function Query of Each Key	9
Chapter 3 Consumable Installation	14
3.1 Installation and Removal of Ribbon Cassette.....	14
3.2 Installation and Removal of Label Cassette	15
3.3 Installation and Removal of Tube Adjuster and Tube	16
3.4 Replacement of Half-cutter and Cutting Board Assembly	18
Chapter 4 Basic Operation	19
4.1 Print of Tube.....	19
4.2 Print of Label.....	20
4.3 Print of Heat Shrink Tube	21
Chapter 5 Operation of Function Key	22
Note:.....	22
5.1 【ESC】	22
5.2 【Media】	23
5.3 【Seg Length】	24
5.4 【Char Size】	26
5.5 【Repeat】	27
5.6 【Frame】	28
5.7 【Margin】	29
5.8 【Char Space】	30
5.9 【Density】	31
5.10 【Align】	32
5.11 【SEQ】	32
5.12 【Set Cut】	35
5.13 【File】	36
5.14 【Cursor Print】	39
5.15 【Font】	40
5.16 【Copy Print】	41
5.17 【Stop】	41

5.18 【Rev Feed】	41
5.19 【Home】	42
5.20 【End】	42
5.21 【Cut Depth】	42
5.22 【Delete Seg】	44
5.23 【Double Rows】	45
5.24 【X ² 】 【K ₂ 】	45
5.25 【Print】	46
5.26 【Caps Lock】	46
5.27 【En/Sy】	46
5.28 【Backspace】	46
5.29 【→】 , 【←】	47
5.30 【↑】 , 【↓】	47
5.31 【Shift】	47
5.32 【Test】	47
5.33 【Enter】	48
5.34 Single column and Double column Display Settings	49
5.35 Screen Brightness Adjustment	49
5.36 Repeat and SEQ Priority Print Settings	49
Chapter 6 Performance Description	51
Chapter 7 Computer Software of TP80E High-Speed Computer Tube Printer	52
7.1 Software Configuration of TP80E High-speed Computer Tube Printer.....	52
Chapter 8 Others	53
8.1 Specification of Original Consumables.....	53
8.2 How to Operate the Tube Printer Correctly	53
8.3 Simple Troubleshooting.....	54
8.4 List of Special Symbols	55

Declaration

1. “硕方”and “Supvan” are registered trademarks of Supvan Technology (Beijing) Co., Ltd.
2. For any information about the instruction contents, Supvan reserves the right to vary because of the upgrade of tube printer.
3. Supvan will not be responsible for any consequence caused by operations that you do not accord with the requirements with instructions.
4. All other logos or trademarks reserved respectively for other companies.
5. If you want to know about information relating to the machine or Supvan, see www.supvan.com.

Brief Introduction of Special Functions

1. English operation interface with English spelling input functions, another location input method for choosing, input English, numbers, symbols etc to achieve various edits.
2. Large white backlight LCD can display 7-row-and-2-column input contents. Each row can display 14 English letters.
3. Push-to-Talk (PTT) can generate various functions with only one key to operate conveniently.
4. Truly international and standard 85-key English notebook computer with a full keyboard.
5. When there is any switch on/off and any error operation, the machine will send a ticking sound to prompt.
6. TP80E tube printer can realize the automatic nip function of print head and the automatic half/full cutting functions.
7. Supvan fonts and TTF are very beautiful so as to make the printing effect be clear more.
8. The unique setting of test key may be convenient for you to monitor the machine status and accept the machine performances.
9. The unique setting of cursor print key may realize the print of contents between any two row intervals in file.
10. The powerful built-in file memory capacity may memory 100 different files for easy calls at any time.
11. Supvan high-speed computer tube printer TP80E can be connected to any computer. Supvan software has a fully new man-machine engineering interface with powerful functions. It is suitable for Windows 2000/XP/Win 7 operating system and can realize independent operations on the work site. It can be used as a dual-purpose machine.
12. It has a portable design and is suitable for use on various occasions.
13. It has a hard suitcase to protect the tube printer effectively.
14. It is equipped with three ribbons including black, red and white ones.

Precautions

Warning

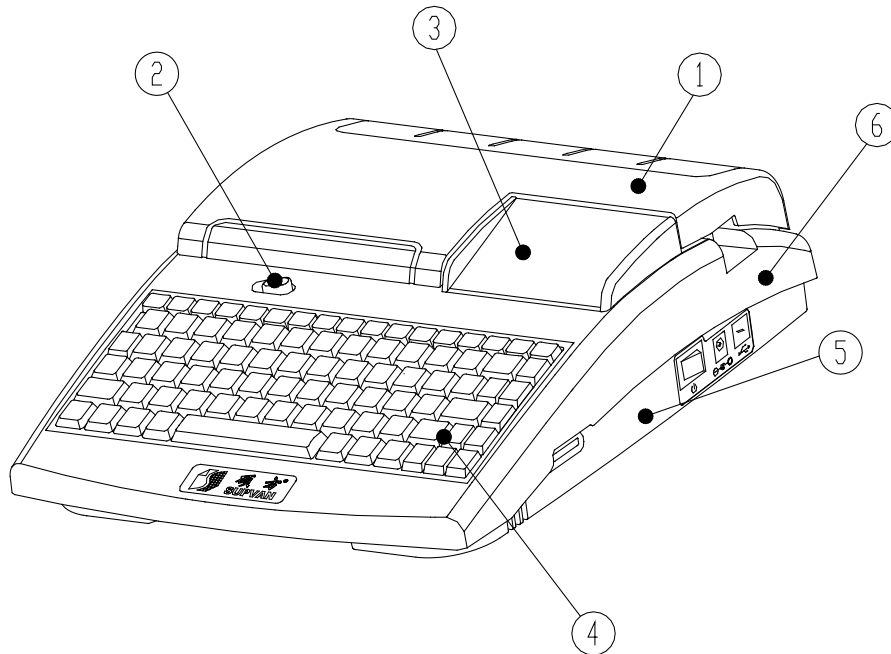
1. Please use a single power socket. Do not use any multiple socket inserted with multiple devices, this may cause a fire or electric shock.
2. Do not allow any metal or liquid into tube printer. This may cause a fire or electric shock as well as damage internal parts and result in machine damage.
3. Do not plug any power plug with wet hand so as to prevent any electric shock.
4. When open the upper cover, do not let any object contact with the moving part of tube printer.
5. Do not use any AC power that is more than 100~240V.
6. Do not disassemble or modify the tube printer without any authorization. This may lead to a fire or electric shock caused by high voltage parts.
7. Please let the tube printer away from alcohol, gasoline and other flammable solvents as well as any ignition source to prevent any deflagration and fire.
8. When clean the tube printer, please use wet gauze that has been twisted closely. Do not use any flammable organic solvent.
9. When find any abnormal smell or noise in operation, please turn off the tube printer immediately, pull out its plug and contact with your dealer.
10. Please use the tube printer in a clean place. Do not use it on carpet or blanket. Otherwise, there will be a lot of dust that can cause a fire easily caused by short circuit.
11. When there is any foreign body into the tube printer, do not use it immediately so as to prevent any damage.
12. The machine can only print $\Phi \leq 6.0\text{mm}$ tube or heat shrink tube. Any $\Phi > 6.0\text{mm}$ tube or heat shrink tube will damage the tube printer.

Caution

1. Not all consumables are suitable for your tube printer. This depends on the performance and specification relating to consumables. Please choose Supvan original consumables to ensure that does not reduce the print quality or damage the tube printer.
2. Supvan will not be responsible for any warranty caused by non-original ribbon or label.
3. Do not touch the print head with hand.
4. When cut with a cutter, be careful to operate so as to prevent any scratch.
5. Touching the print head of tube printer that is operating to the end just now may cause your skin being burnt.
6. Please operate the tube printer at any position that shall be far away from moisture and hot to prevent any electric shock.
7. Please unplug power cables if you do not use the tube printer for a long time.
8. The machine is very sophisticated. Please operate it on a flat surface to prevent falling and damage as well as shock vibration.
9. Do not compress your tube printer.
10. Prevent any direct sunlight.
11. Keep away from any electromagnetic interference generating a magnetic field.
12. Do not block any outlet of sleeve or label.
13. Do not knock any keyboard in force.
14. In operation, do not pull out any print media forcibly from the outlet. Take out it after cut off it. Otherwise, this will effect on the printing effect or damage your tube printer.
15. Consumables or tube printer shall be stored in a dry place with ventilation, room temperature, and non-direct sunlight.

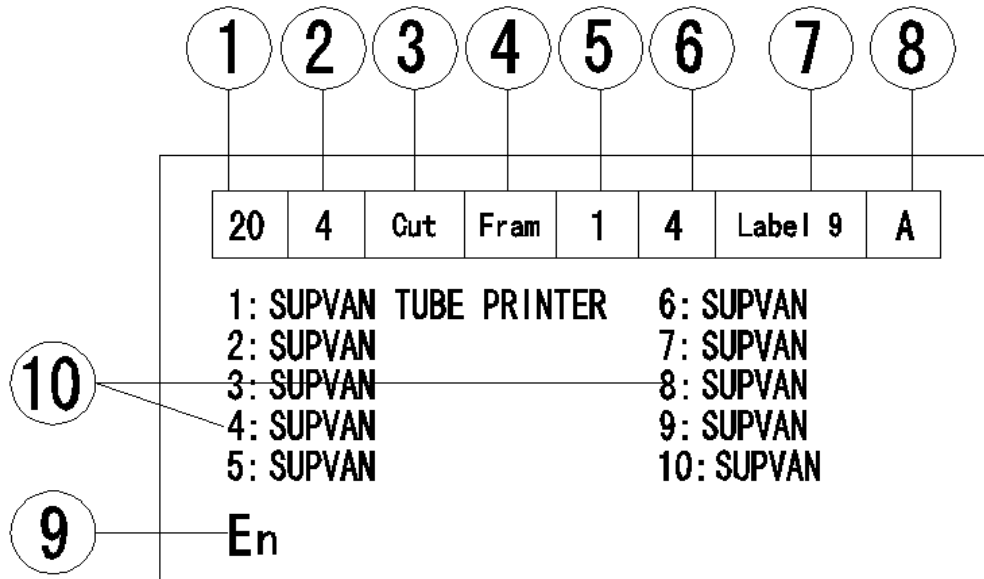
Chapter 1 Appearance Description and Configuration

1.1 Appearance Part Name of Supvan Tube Printer



SEQ	Name
1	Upper cover
2	Cover opening button
3	LCD display
4	Keyboard
5	Lower casing
6	Upper casing

1.2 LCD Display Description



	Text prompt	Description
1	Seg Length	Segment length of segment that cursor locates
2	Char Size	Character size of segment that cursor locates
3	Set Cut	Setting state of half cut function: Normal: Not half cut or not draw a solid line. Half cut: Setting half cut Solid line: Draw a solid line.
4	Frame	Frame setting state of segment that cursor locates. Normal: None; Frame: Add a frame; Underline: Add an underline.
5	Repeat	Repeat printing times of segment that cursor locates.
6	Density	Setting value of density level.
7	Media	The setting type of printer consumables
8	Caps Lock	Current setting state of letter uppercase/lowercase
9	En/Sy	Current display of input method
10		Display content: Segment numbering and segment content.

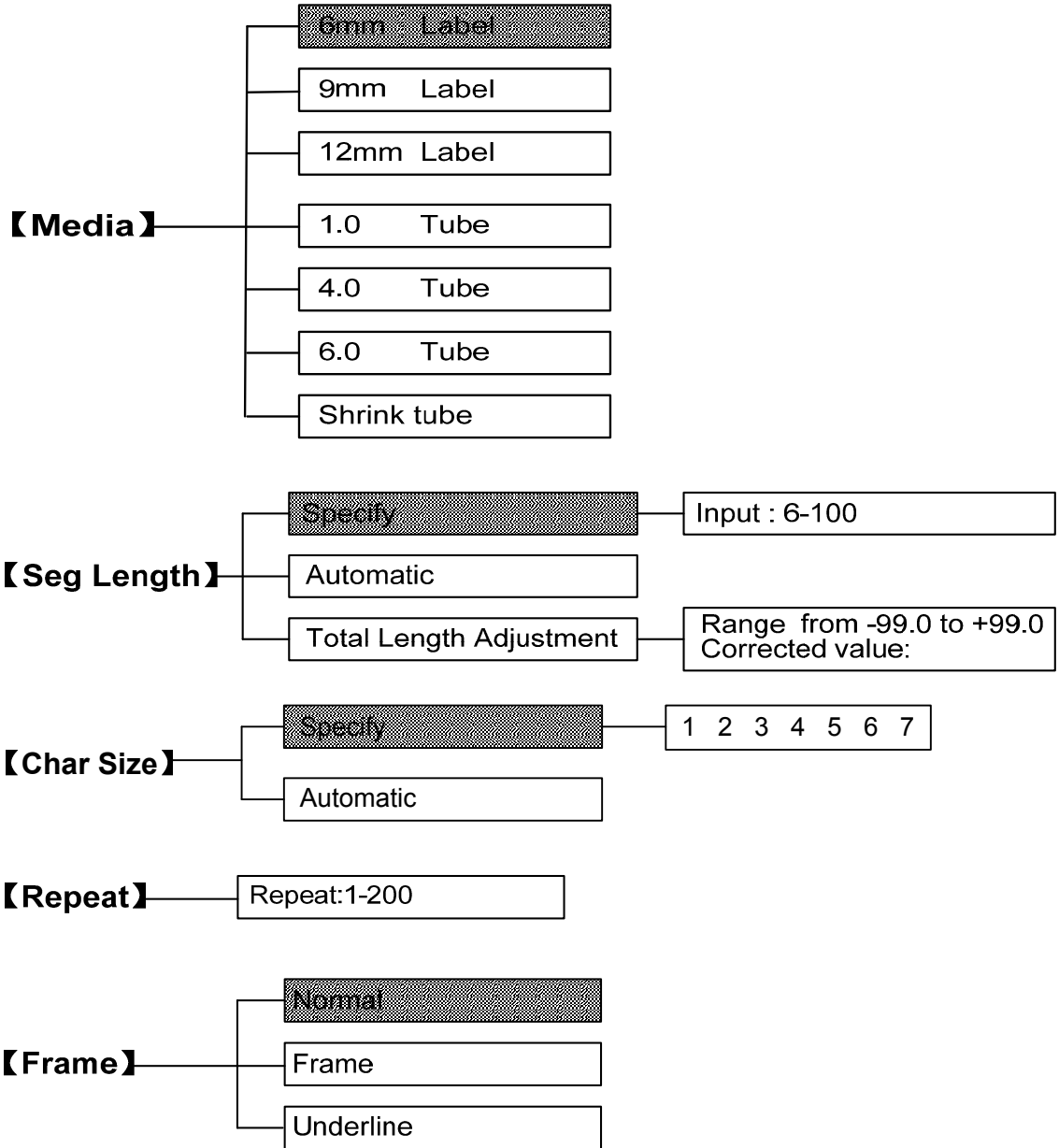
1.3 Standard Configuration

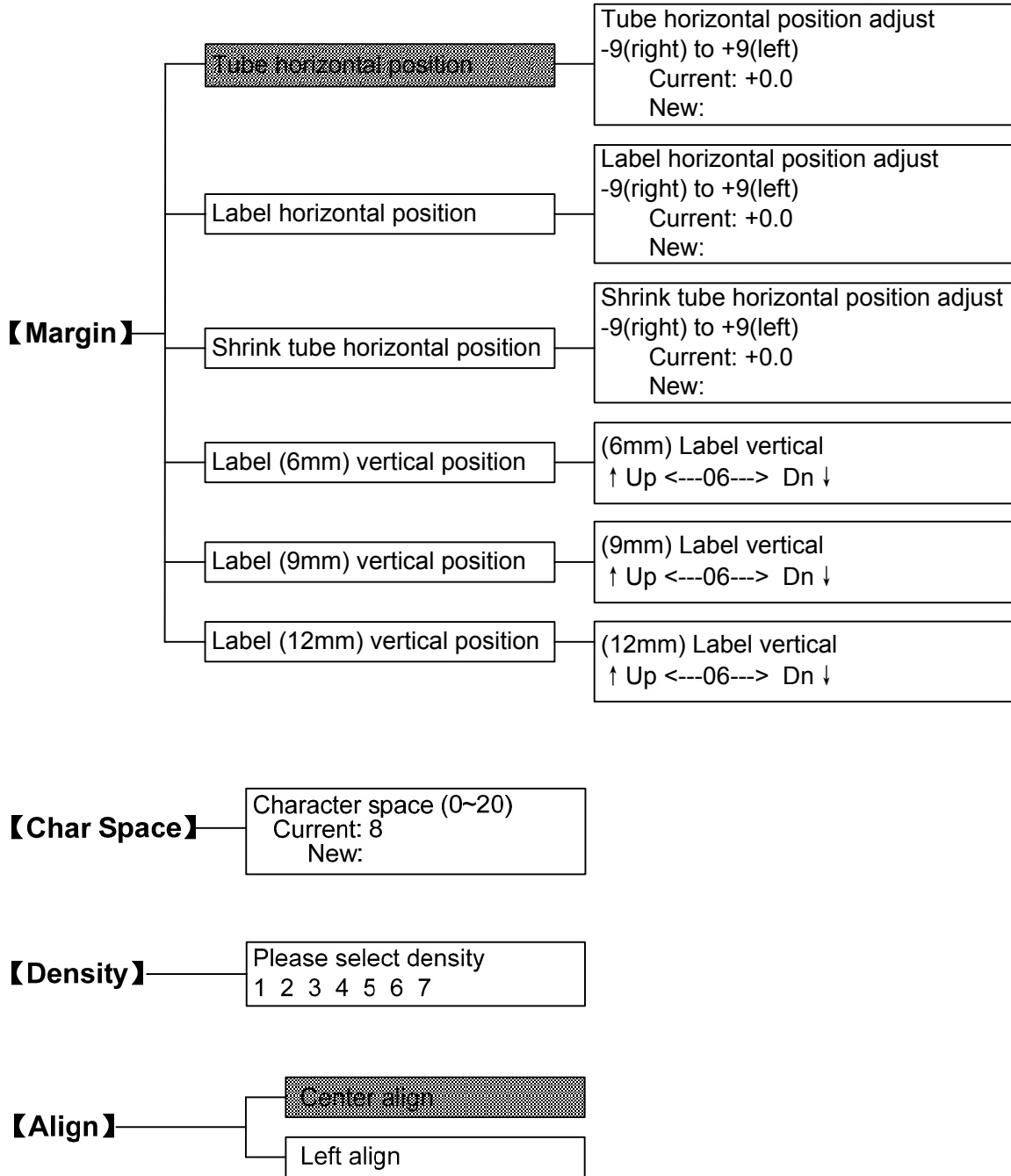
1. One Supvan tube printer;
2. One operating instruction;
3. One packing list;
4. Certificate and delivery print test sample;
5. One power adapter (including power cord);
6. One box of trial ribbon;
7. One box of trial label;
8. One tube adjuster;
9. One Supvan program CD;
10. One of USB computer cables;
11. One hard suitcases ;

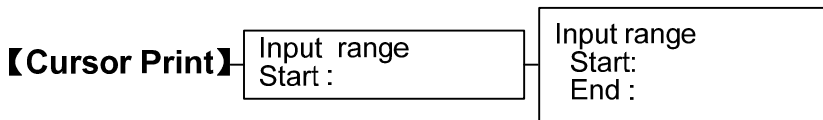
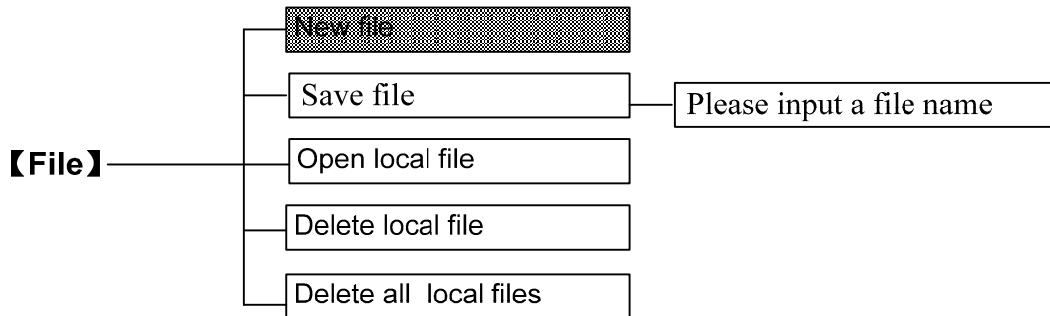
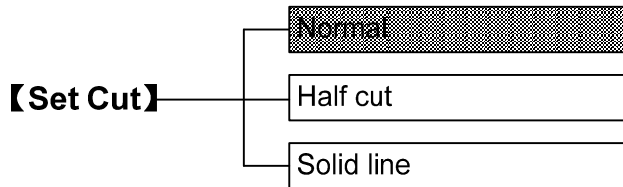
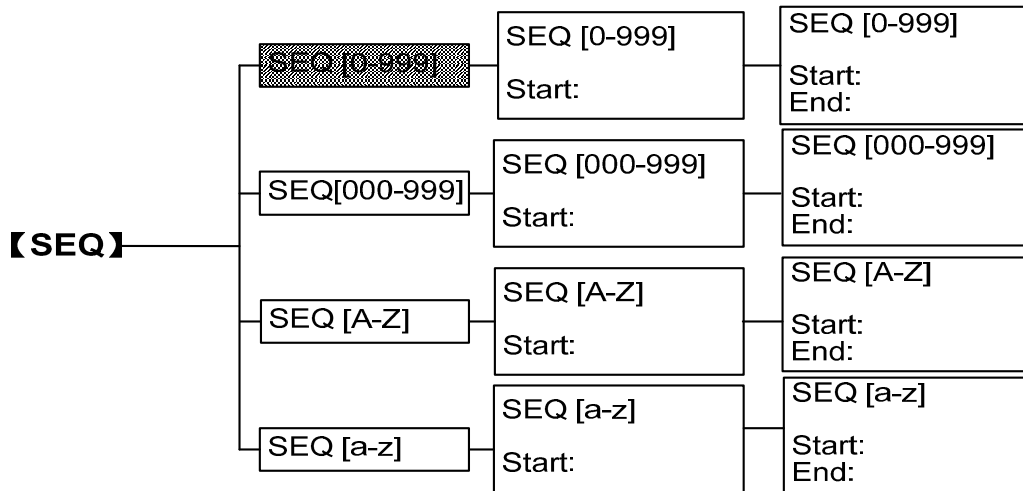
Chapter 2 Push-To-Talk (PTT) – Quick Function Query of Each Key

PTT List and initial states of all function keys on keyboard (the gray shading part is an initial setting).

【ESC】 ESC the current setting, operation or error description to return to the previous level of menu or a document input interface.







【Font】 — Simhei
 Arial
 Arialbd
 Arialbi
 Arialk
 Calibri
 CalibriB
 CalibriZ
 Dotum

【Copy Print】 — Input copies:

【Stop】 — Cancel the print operation in a midway.

【Rev Feed】 — Please confirm feed reversal ?
 Yes No

【Home】 — Move the cursor to the first row of current document.

【End】 — Move the cursor to the last row of current document.

【Cut Depth】 —

6mm Label	[6mm Label] -3 -2 -1 0 1 2 3
9mm Label	[9mm Label] -3 -2 -1 0 1 2 3
12mm Label	[12mm Label] -3 -2 -1 0 1 2 3
1.0 Tube	[1.0 Tube] -3 -2 -1 0 1 2 3
4.0 Tube	[4.0 Tube] -3 -2 -1 0 1 2 3
6.0 Tube	[6.0 Tube] -3 -2 -1 0 1 2 3
Shrink tube	[Shrink tube] -3 -2 -1 0 1 2 3

【Delete Seg】 —

Delete the current segment?	
Yes	No

【Double Rows】 — Set the double rows.

【X₂】 — Set the subscript.

【X²】 — Set the superscript.

【Print】 — Print all documents being edited currently.

【Caps Lock】 — English Caps lock conversion, Uppercase letter

【En/Sy】 — Select input modes including En (English) and Sy (Special symbols).

【Backspace】 — Delete the character in the front of cursor.

【Shift】 — Shift key

【Test】 —

Tube 4.0 Label 9mm Shrink tube	Measure the length of the last 4 segments of the test sample measure value(mm):
--------------------------------------	---

Chapter 3 Consumable Installation

As an equipment manufacturer, Supvan can provide only four major categories of consumable medias including ribbon, label, tube, and cutter group. For other consumable medias, please contact with your supplier.

3.1 Installation and Removal of Ribbon Cassette

3.1.1 Installation

- (1) See Figure 1. Tighten the ribbon according to the direction of arrow on ribbon cassette so as to open and flat.
- (2) Make the print head in a non-printable state.
- (3) See Figure 2. Place the ribbon cassette at a position marked on tube printer.

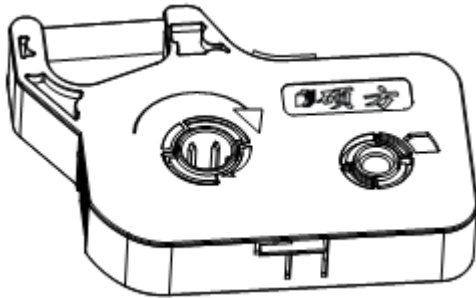


Figure 1 Ribbon Take-up

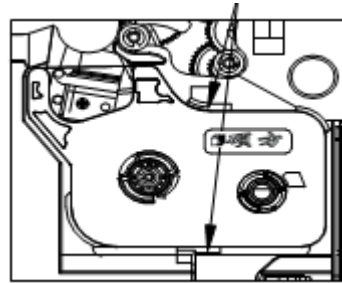
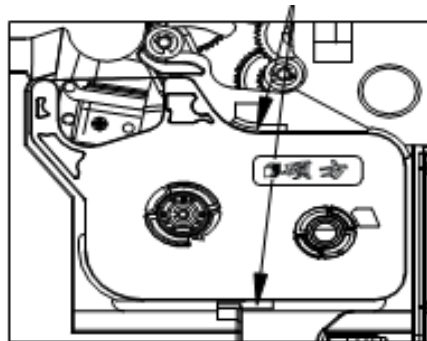


Figure 2 Ribbon Cassette Installation

3.1.2 Removal

- (1) Make the print head in a non-printable state.
- (2) Press the clamping tongue inward with a finger to lift it upward so as to remove the ribbon cassette easily according to the direction of arrow in the following figure.



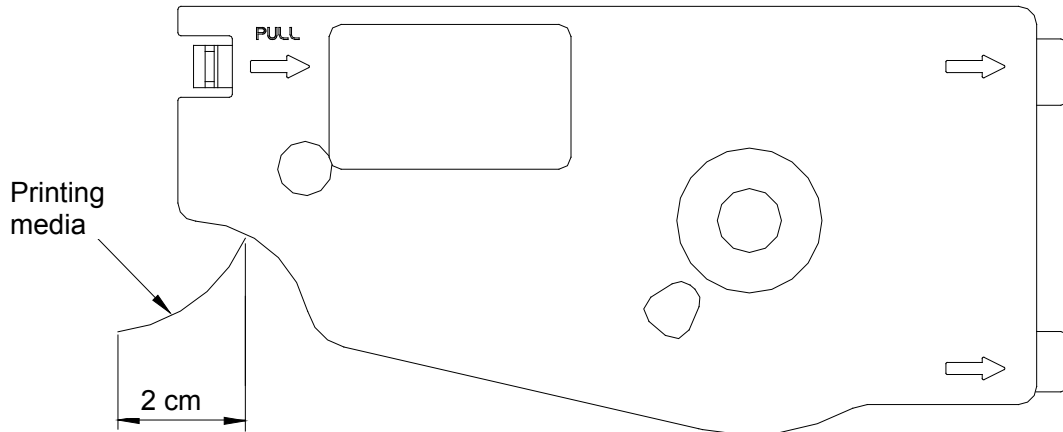
Removal of Ribbon Cassette

3.2 Installation and Removal of Label Cassette

3.2.1 Installation

- (1) Open the upper cover.

Please pull the label about 2cm out of the outlet of label cassette. See the following figure.

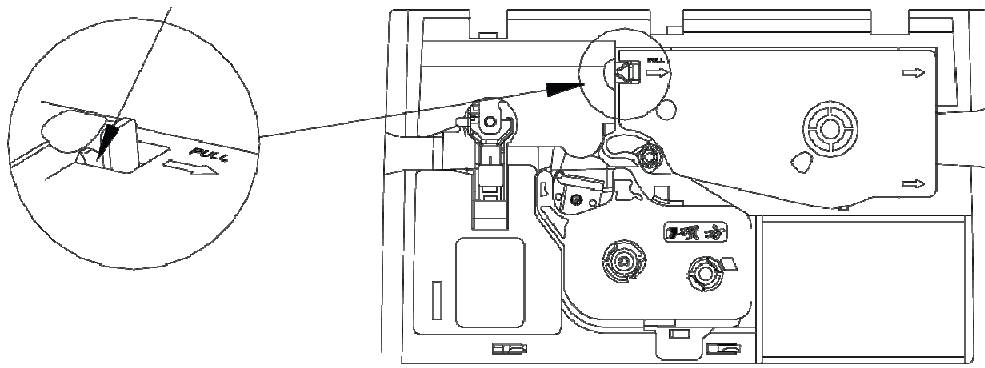


- (2) Insert the clamping tongue from the right of label cassette gently into a
- (3) Press the label cassette till that there is a click sound of clamping tongue in the left, and ensure the front end of label is more than the pinch roller.

Note:

- Please ensure that the clamping tongue in the left of label cassette has been returned.

Clamping tongue



- (4) Close the upper cover.

3.2.2 Removal

- (1) Open the upper cover.
- (2) Make the print head in a non-printable state.

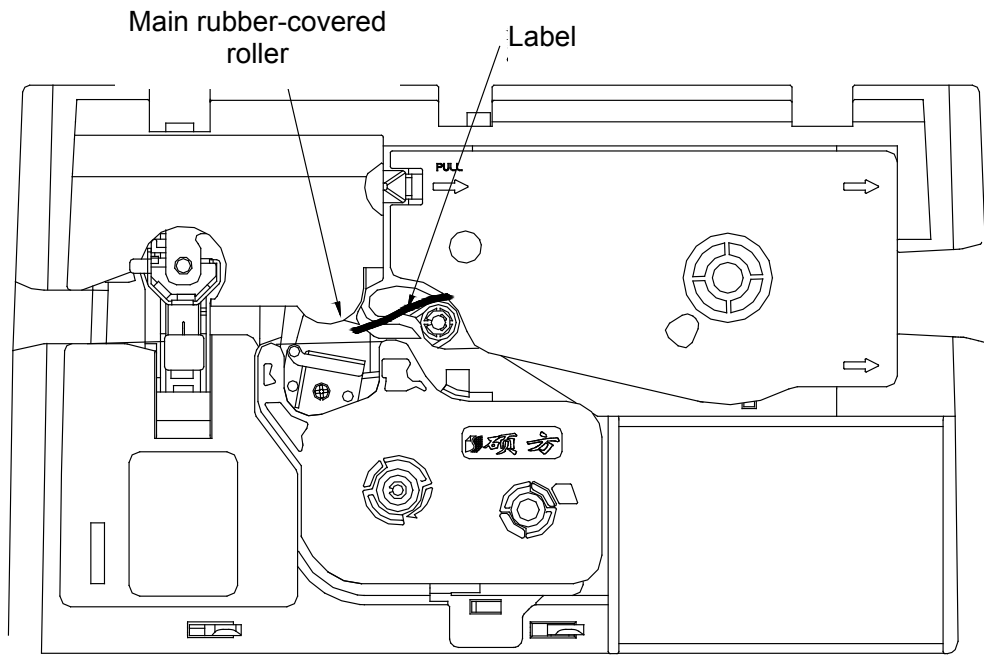
- (3) Press the clamping tongue in the left of label cassette and lift upward the box at the same time.
- (4) Pull the clamping tongue from the right of label cassette out of the card slot in the fixed holder of printing media on tube printer.
- (5) Close the upper cover.

Note:

- Do not store any label cassette under the following conditions:
 - ① Dirty and dusty place;
 - ② Any place with direct sunlight;
 - ③ Hot or humid place;
 - ④ Any place that the temperature is lower than -25°C and higher than 120°C ;

3.2.3 Label installation location

For any label installation location, see the following figure. Pull the head of label to a lower position of main rubber-covered roller.



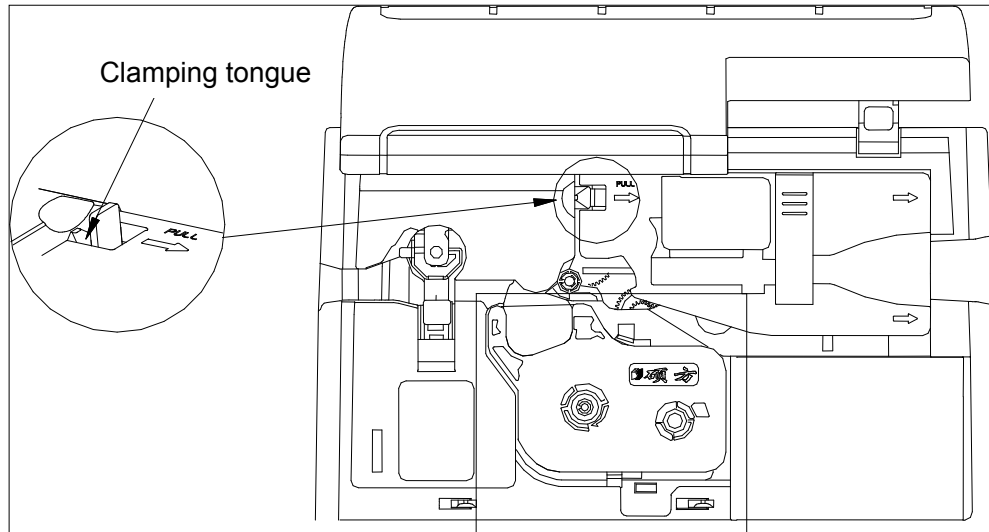
3.3 Installation and Removal of Tube Adjuster and Tube

3.3.1 Installation of tube

Install a tube into tube adjuster.

3.3.2 Installation of tube adjuster

- (1) Open the upper cover.
- (2) Insert the clamping tongue from the right of tube adjuster gently into a card slot in the fixed holder of printing media on tube printer.
- (3) Press the tube adjuster till that there is a click sound of clamping tongue in place at the left.



- (4) Close the upper cover.

3.3.3 Removal of tube adjuster

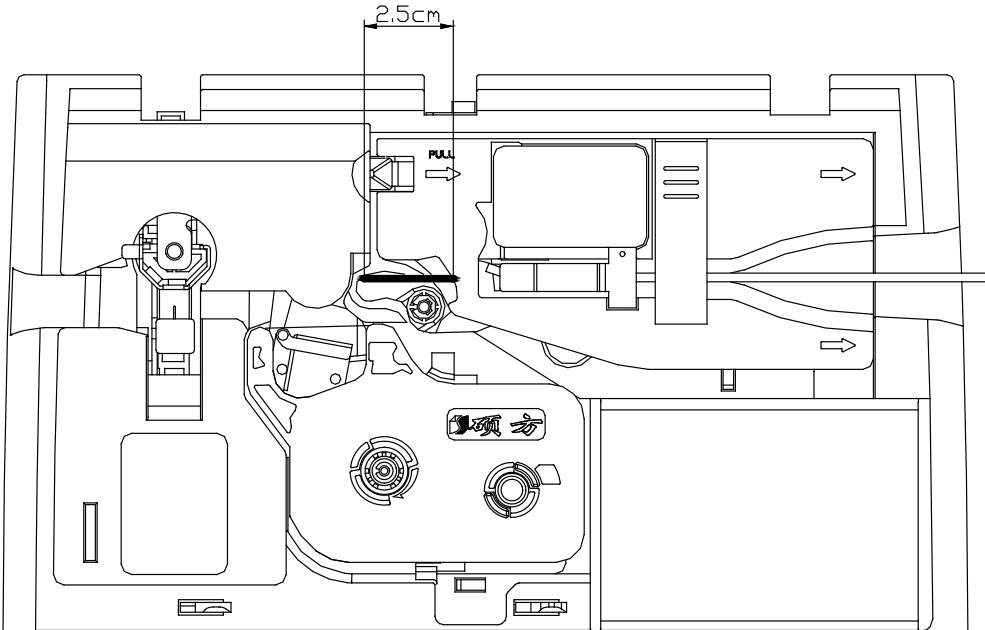
- (1) Open the upper cover.
- (2) Press the clamping tongue at the left of tube adjuster and lift it upward at the same time.
- (3) Pull the clamping tongue from the right of tube adjuster out of the card slot in the fixed holder of printing media on tube printer.
- (4) Close the upper cover.

Note:

- Do not place any heavy object on tube.
- Do not store any tube under the following conditions:
 - ① Dirty and dusty places;
 - ② Any place with direct sunlight;
 - ③ Hot or humid place;
 - ④ Any place that the temperature is lower than -35°C and higher than 90°C ;

3.3.4 When install any tube, expose it with about 2.5cm. For its installation position,

see the following figure. Pass the tube through tube adjuster to place the elbow direction in an appropriate state.



3.4 Replacement of Half-cutter and Cutting Board Assembly

3.4.1 Replacement of half-cutter

Extract any half-cutter to be replaced, and insert a new one.

3.4.2 Replacement of cutting board assembly

- (1) Take the label or tube out of tube printer;
- (2) Pull out the cutting board assembly to be replaced.
- (3) Insert a new one.

Note:

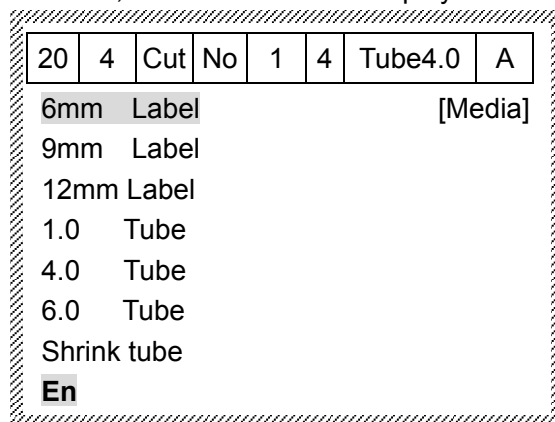
- Please be careful not to hurt your fingers when replace any half-cutter and cutting board assembly.
- When the half-cutting effect is not good, please replace the complete set of half-cutter and cutting board assembly at the same time.

Chapter 4 Basic Operation

To print contents correctly, please set the option of media and specifications correctly so as to ensure the setting of tube printer corresponds to the media and specifications that you use actually.

4.1 Print of Tube

After install the tube that you want to print, Then, press **【Media】**, start the printer to enter the option of media, and there will be a display shown on screen.

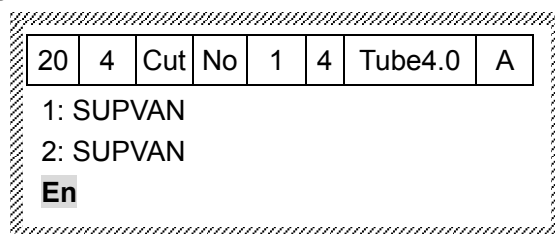


Make a correct selection with **【↓】** and **【↑】** according to the specifications of tube that you have installed.

Press **【Enter】** to go into a document input interface so as to carry out content editing.

Input letters, English words or symbols in turn such as S, U, P, V, A, and N, and there will be **1: SUPVAN** displaying on screen.

Press **【Enter】**, and the next row will be generated automatically. There will be a display on screen.



Then input "SUPVAN", and there will be **2: SUPVAN**.

Press **【Print】**, the machine will print the input contents automatically as well as carry out half-cut and full cut. During the printing process, LCD will display **Printing.....** After printing, return to a document input interface automatically.

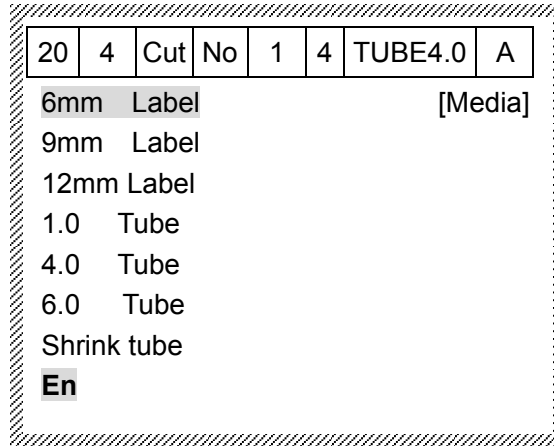
Note:

- For 0.5², 0.75², 1.0² and 1.5² tubes, please select 1.0 Tube to print character size 1 and 2.
- For 2.5², and 4.0² tubes, please select 4.0 Tube to print character size 1, 2, 3 and 4.

- For 6.0² tube, please select 6.0 Tube to print the character size 1, 2, 3, 4 and 5.

4.2 Print of Label

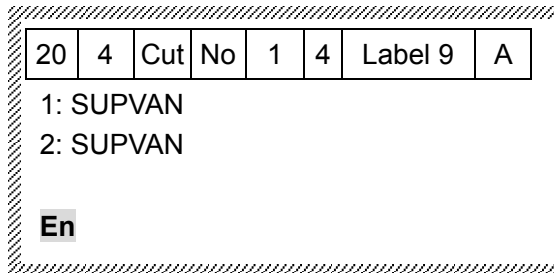
Install the label that you want to print. Then, press **【Media】**, start the machine to go to the media option, and there will be a display shown on screen.



Make a correct selection with **【↓】** and **【↑】** to select correctly according to the specification of installed label. Press **【Enter】** to go into the document input interface so as to edit contents.

Input letters, English words or symbols in turn such as S, U, P, V, A, and N, and there will be 1: SUPVAN displaying on screen.

Press **【Enter】**, and the next row will be generated automatically. There will be a display on screen.



Input "SUPVAN" again, and it will become as 2: SUPVAN;

Press **【Print】**, the machine will print the input contents automatically as well as carry out half-cut and full cut. During the printing process, LCD will display Printing...... After printing, return to a document input interface automatically.

Note:

- Be able to print character size 1, 2 and 3 correctly in a single row of 6mm label.
- Be able to print character size 1, 2, 3, 4 and 5 correctly in a single row of 9mm label.
- Be able to print all including character size 1, 2, 3, 4, 5, 6 and 7 correctly in a

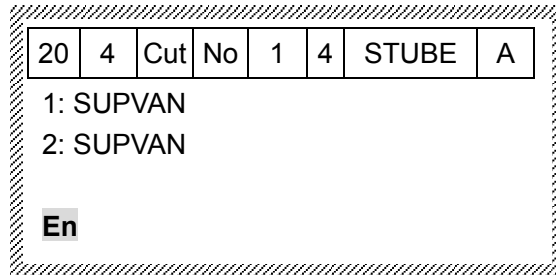
single row of 12mm label.

4.3 Print of Heat Shrink Tube

After install the heat shrink tube to be printed, Then, press **【Media】** start the machine to go into the media option. After select **Shrink Tube**, press **【Enter】** to go into a document input interface so as to input the contents.

Input letters, English words or symbols in turn such as S, U, P, V, A, and N, and there will be **1: SUPVAN** displaying on screen.

Press **【Enter】**, and the next row will be generated automatically. There will be a display on screen.



Input "SUPVAN" again, and it will become as **2: SUPVAN;**

Press **【Print】**, the machine will print the input contents automatically as well as carry out half-cut and full cut. During the printing process, LCD will display **Printing.....**. After printing, return to a document input interface automatically.

Note:

- Printing $\Phi > 6\text{mm}$ shrink tube may damage the tube printer.

Chapter 5 Operation of Function Key

Note:

- A. Those contents with **【 】** are expressed according to key names, and those with are expressed as screen display.
- B. When you operate in error, there will be an error message on display, and the error operation cannot be completed.
- C. The setting of not-operated function keys are in a factory setting state.
- D. In a printing condition, there is only **【Stop】** to work.
- E. When operate some certain function key, others can work only when the function key completes editing or exit the edit state (only the ESC key is used to exit the editing state of function key).
- F. All function keys will return to the document input interface after their settings have been completed.
- G. For any out of document capacity provisions (the machine may be input with 2048 characters and 200 rows at most in one time), there will be an error display on screen.
- H. The setting state of new row is same as that of preceding one.
- I. All 5 functions including Segment length, Char size, Repeat, Frame, Margin can be related with the cursor position. In setting, the row that the cursor is located and all rows that are followed from the above shall be set as a same setting. The adjustment of cursor position may be completed with **【Home】** , **【End】** , **【↓】** , **【↑】** , **【→】** and **【←】** .
- J. Large white backlight LCD can display 7-row-and-2-column input contents. Each row can display 14 English letters or 7 Chinese character symbols.
- K. The content of each row may be displayed as a row on screen (for a double rows setting, the content after double rows prompt may be displayed as a row on screen. But actually, the printing effect is the second row of the row).So, when the content of the row is longer and cannot be displayed on screen, the display content will move to the left.
- L. All setting states including Segment length, Char size, Set cut, Frame, Repeat, Density, Media, Caps lock, Input Method, Row Numbering, and Row Content can be displayed on screen.
- M. In a double rows, the row space is fixed. In a double column, the column space is fixed.
- N. The initial state of letter key is uppercase.

5.1 **【ESC】**

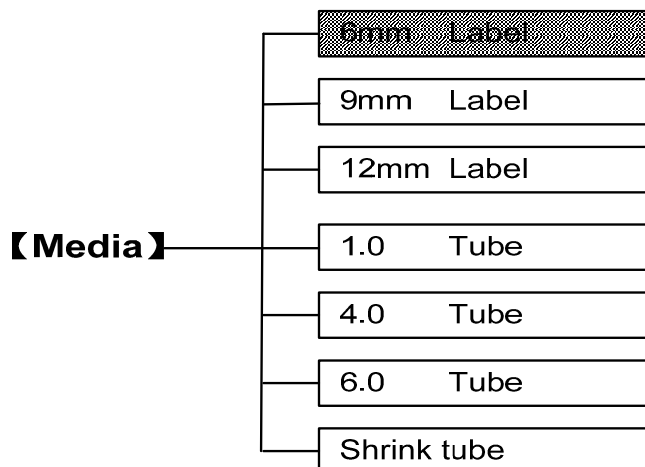
ESC the current operation. When return to the previous menu or document input

interface, use it.

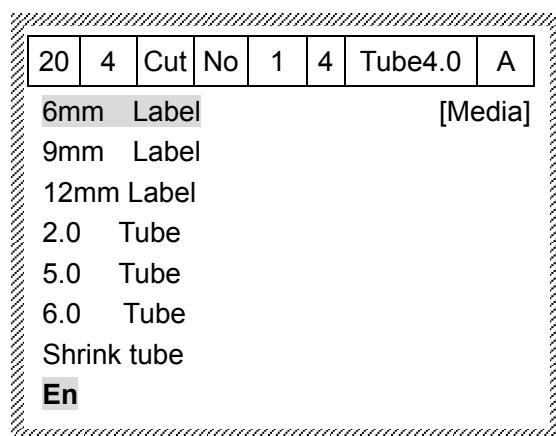
5.2 【Media】

Before inputting the print content, be sure to select medias correctly. After replacing print medias, be sure to re-select the setting corresponding to current medias on tube printer. Otherwise, the failure to do as above may affect the print effect, cause a printing error, and damage the print head.

This function is used to establish the most reasonable input environment of tube printer so as to match with the print media you have loaded.



5.2.1 Press **【Media】**, and there will be a display on screen:



5.2.2 Press **【↑】** and **【↓】**, select the specific **Tube** media model. Then, press **【Enter】** to go into a document input interface.

5.2.3 Press **【↑】** and **【↓】**, select the specific **Label** media model. Then, press **【Enter】** to go into a document input interface.

5.2.4 Press **【↑】** and **【↓】**, select **Shrink Tube**, and press **【Enter】** to go directly into

a document input interface.

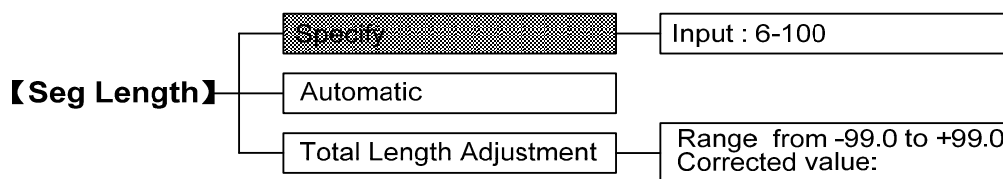
Note:

- After selecting medias, when the character size is more than the maximum size of allowable media printing, there will be a prompt on display screen shown as Character size exceeds limit. **[ESC]** to return.

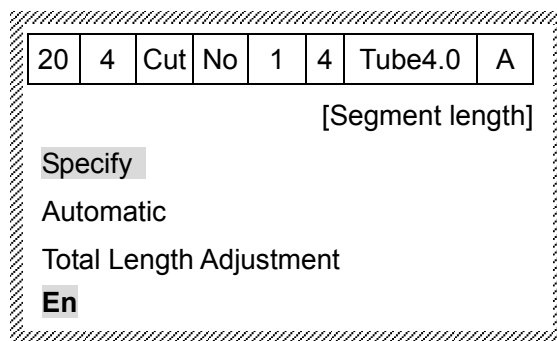
5.3 【Seg Length】

The specify and the automatic are effective to any row that the cursor is located and all rows that are followed from the above. The adjustment is effective to all rows in the current document.

This function is used to set a segment length of medias that you will print. The range of segment length is 6~100 mm, and the segment length may be selected as an integer.



5.3.1 Press **【Seg Length】** , and there will be a display on screen:



5.3.2. Specify

After selecting Specify, press **【Enter】** ,and there will be a display shown on screen.

20	4	Cut	No	1	4	Tube4.0	A
[Specify segment length]							
Input:6-100							
En							

After input the specify directly at the cursor, press **【Enter】**, the row that the cursor is located and all rows that are followed from the above will be set as the specify and the interface will return automatically to the document input state.

For example, inputting “15” expresses that the segment length is 15mm.

Note:

- If all characters of any selected segment length cannot be printed, there will be a prompt Segment length exceeds limit.

5.3.3 Automatic

The function is that the segment length will be generated automatically according to all including Letters, English characters, Symbols, set Char space, Char size and others that you input actually.

Select Automatic, press **【Enter】**, and the row that the cursor is located and all rows are followed from the above will be set as an automatic segment length and press **【ESC】** to return automatically to a document input interface.

Note:

- After the automatic character size has been set, the automatic segment length will not work.
- If select the automatic segment length after set the automatic character size, press **【Enter】**, and there will be a prompt Only character size or segment length can be set automatic 【ESC】 to return

5.3.4 Total length adjustment

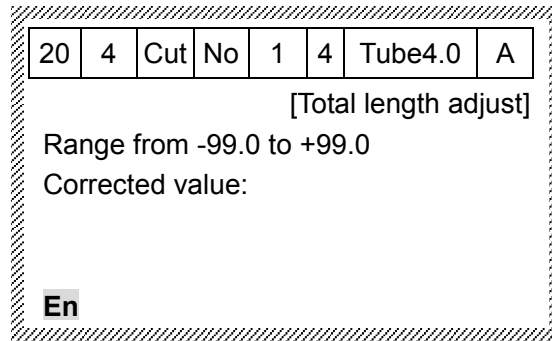
The function is used to correct the total print segment length.

For example, when it is necessary to print the total segment length of terminal block marking tape and label, use the function to realize.

For example, the segment length is set as 15mm and Repeated for 20 times, the total print segment length is set as 300mm. If the total segment length of actual print is 296mm, the correction method shall be shown as follows.

- Calculate the difference between the total print segment length in setting and the total actual print segment length in measurement: $300-296=4$.

- B. Press **【Seg Length】**, select **Total Length Adjustment**, press **【Enter】**, and there will be a display on screen as follow.



Input "4", press **【Enter】**, the interface will return to the document input state, and finish the setting of adjustment.

Now, go to print, and the actual total print segment length will be adjusted as 300mm.

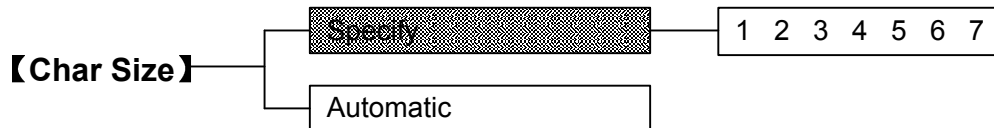
Note:

- The setting of adjustment may be effective only for the print operation of current content.

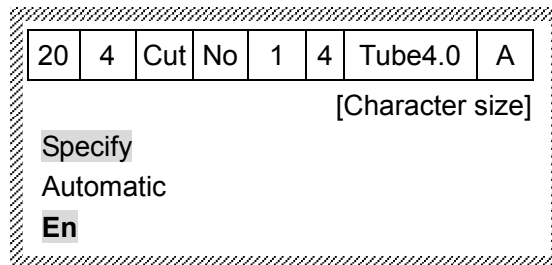
5.4 【Char Size】

The setting is effective for the row that the cursor is located and all rows that are followed from the above.

This function is used to set the size of character.

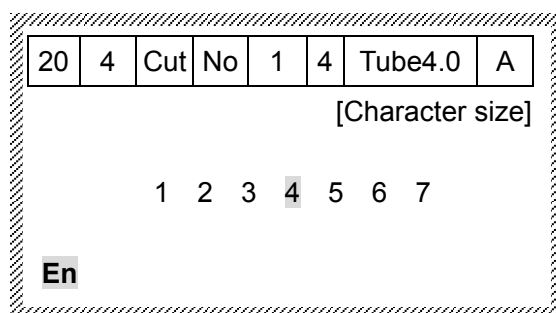


- 5.4.1 Press **【Char Size】**, and there will be a display on screen:



- 5.4.2 Specify

After selecting **Specify**, press **【Enter】**, and there will be a display shown on screen.



Press **→** and **←**, move the cursor to some certain character size that you want to select. Press **Enter**, all character sizes of the row that the cursor is located and all rows that are followed from the above will be set at the size of selected character, and the interface will return automatically to the document input state.

Note:

- For the machine, the range of different character sizes has been defined according to different specifications and medias. So when the character size that you select has been out of the specified range, there will be a prompt **Character size exceeds limit. [ESC] to return.**

5.4.3 Automatic

The function means that the machine will adjust the character size automatically to make the input be effective and ensure the segment length of medias is unified after the specify has been set.

Select **Automatic**, press **Enter**, and the row that the cursor is located and all rows are followed from the above will be set as an automatic character size and the interface will return automatically to the document input state.

Note:

- After the automatic segment length has been set, the automatic character size will not work. If use the character size function after set the automatic segment length, select the automatic character size and press **Enter**, there will be a prompt **Only character size or segment length can be set automatic [ESC] to return.**

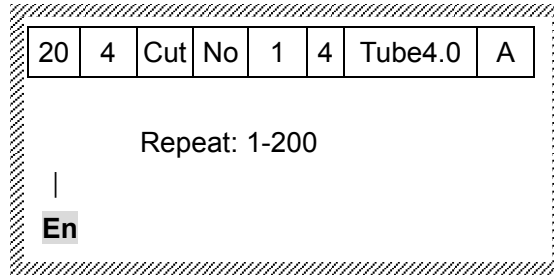
5.5 【Repeat】

After use the command, both the row that the cursor is located and all rows that are followed from the above will be set with the same Repeat printing time.

The function is used to set the repeat printing times of set row, and the repeat range is 1~200 times. The initial setting is to repeat for 1 time. Repeating for 1 time means to print all selected document contents for 1 time.

【Repeat】 — Repeat:1-200

Press **【Repeat】** , and there will be a display on screen:



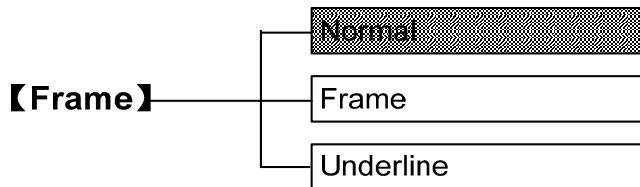
Input any number (integer) directly that you want to repeat. Press **【Enter】** , the row that the cursor is located and all rows that are followed from the above will be printed repeatedly with the times that you input, and the interface will return automatically to the document input state.

When the above is out of the allowable Repeating range, there will be a prompt **Error! 【Space】 again**. Now, press **【Space】** to return, and input it again.

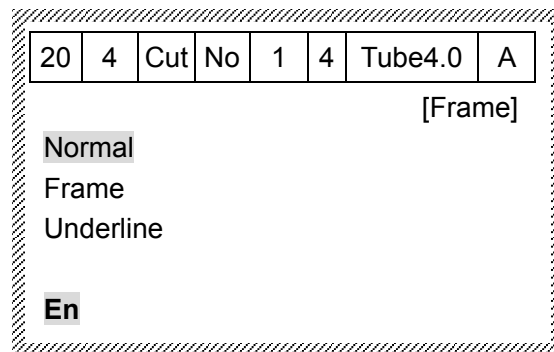
5.6 【Frame】

After use the command, both the row that the cursor is located and all rows that are followed from the above will be set with the same Frame state.

The function is to add a frame or underline for the printed content of some certain row. The initial setting does not have any frame.



5.6.1 Press **【Frame】** , and there will be a display on screen:



5.6.2 Normal

Select **Normal**, press **Enter**, the print content of the row that the cursor is located and all rows that are followed from the above will be no frame and no underline.

5.6.3 Frame

Press **Up** and **Down**, select **Frame** or **Underline**, press **Enter**, the print content of the row that the cursor is located and all rows that are followed from the above shall be added with a frame or underline, and the interface will return automatically to the document input state.

Note:

- Add a frame and there will be **Frame** displayed on screen. Add an underline and there will be **Underline** displayed on screen.
- When there is any double rows (horizontal), add a frame, and the print effect is shown as follow:

ABC
ABC

- When there is any double rows (vertical), add a frame, and the print effect is shown as follow:

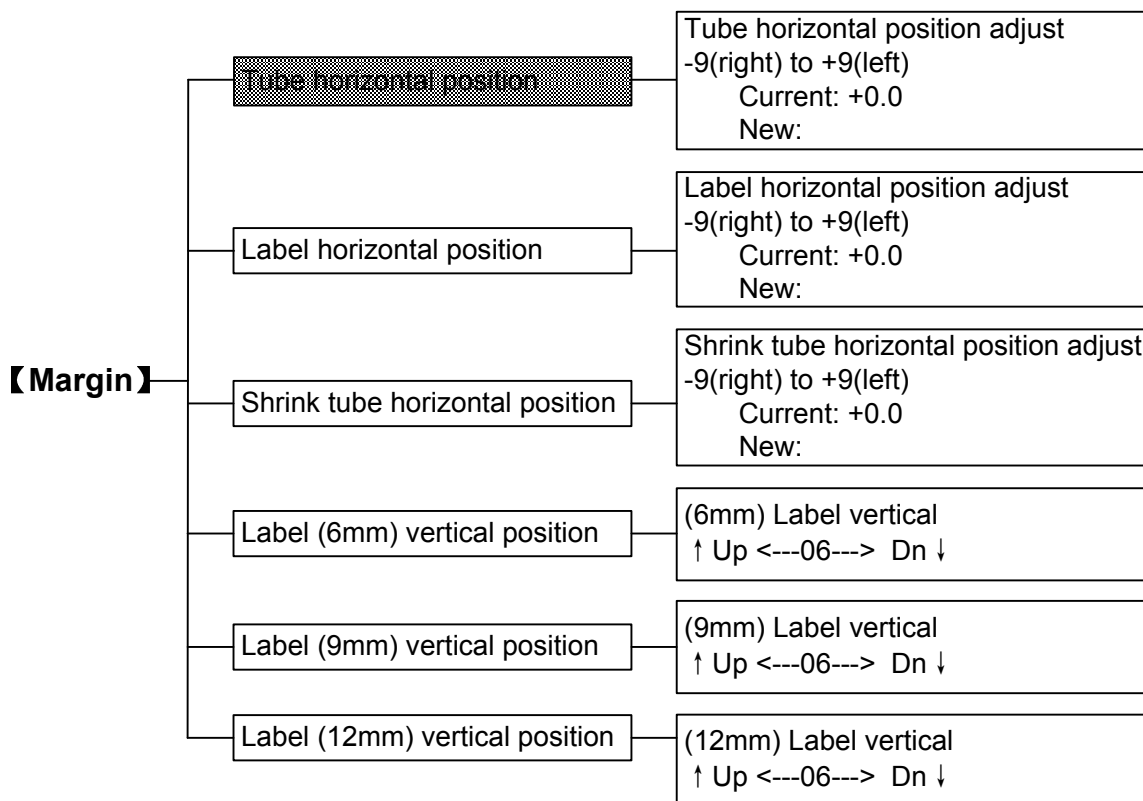
AA	BB	CC
----	----	----

- When there is any single row (vertical), add an underline, and the print effect is shown as follow:

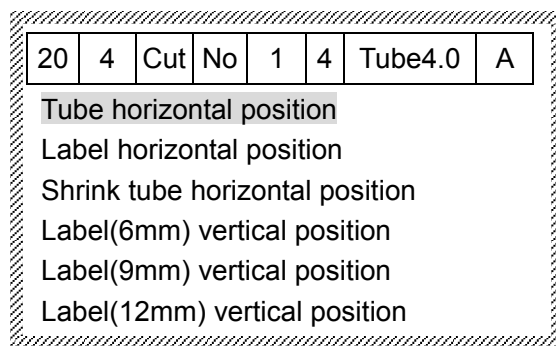
	A
	B
	C

5.7 **Margin**

The function is to adjust the print start position and vertical position,. You can adjust the printing position slightly up/down or left/right.



Press **【Margin】** , and there will be a display on screen:



Press **【↑】** or **【↓】** .After selecting, press **【Enter】** , the row that the cursor is located and all rows that are followed from the above will be set as the print direction that you select, and the interface will return automatically to the document input state.

5.8 【Char Space】

The setting is effect for all print contents.

The function is to set the distance between characters.

【Char Space】

Character space (0~20)
Current: 8
New:

Press **【Char Space】** , and there will be a display on screen:

20	4	Cut	No	1	4	Tube4.0	A
Character space (0-20)							
Current:8							
New:							
En							

Input the character space you want to set directly, press **【Enter】**, and the character space of all rows will be set, and the interface will return automatically to the document input state.

Note:

- When the character space you select is too large, there will be a prompt on screen shown as **Error! 【Space】 again** Now, the interface will return to the document input state. Please reset it.
- The character space is 0-20, and the character space is increased in turn.

5.9 【Density】

The setting is effective for all print contents.

【Density】

Please select density
1 2 3 4 5 6 7

Press **【Density】** , and there will be a display on screen:

20	4	Cut	No	1	4	Tube4.0	A
Please select density							
1 2 3 4 5 6 7							
En							

Press **【←】** or **【→】** . After selecting, press **【Enter】** , and complete the setting. The interface will return automatically to the document input state. 1, 2, 3, 4, 5, 6 and 7, the print density will be increased in turn.

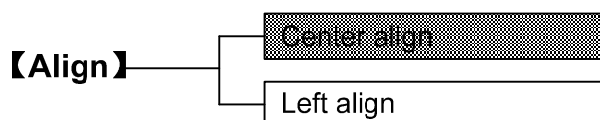
Select the print density according to the ambient temperature: the temperature is high in summer. Please select the lower print density from 1.

5.10 【Align】

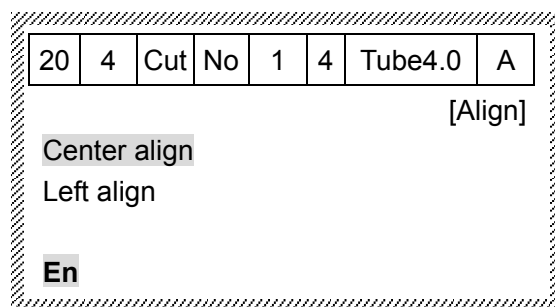
The setting is effect for all print contents.

The print position adjustment means to adjust the position of print contents finely towards to the left or right when there is any media or external condition to effect that the position of print content cannot be placed in the middle or aligned to the left like the pre-setting.

The initial setting is in the middle without any print position adjustment.



Press **【Align】** , and there will be a display on screen:



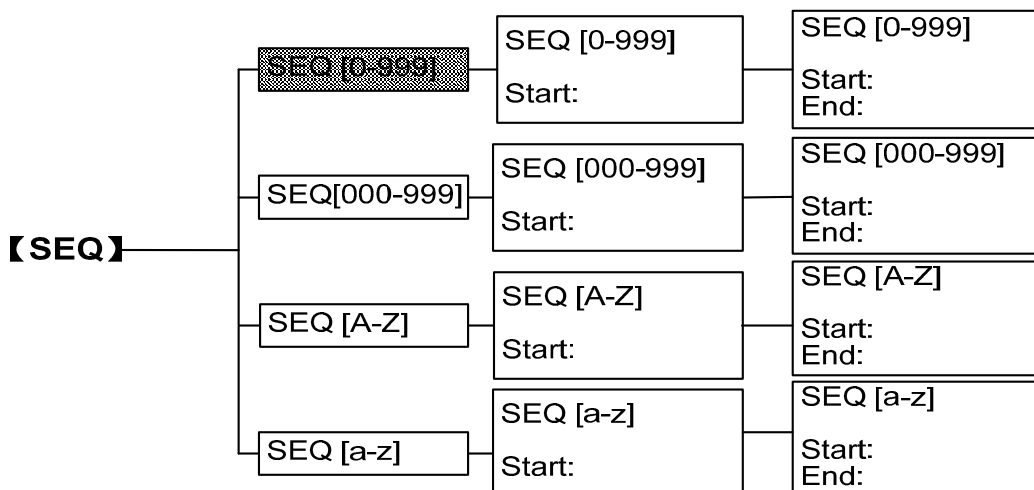
Press **【↑】** or **【↓】** to select.

- (1) **Center align**. Press **【Enter】** , the print content will be centered, and the interface will return automatically to the document input state.
- (2) **Left align**. Press **【Enter】** , the print content will be aligned to the left, and the interface will return automatically to the document input state.

5.11 【SEQ】

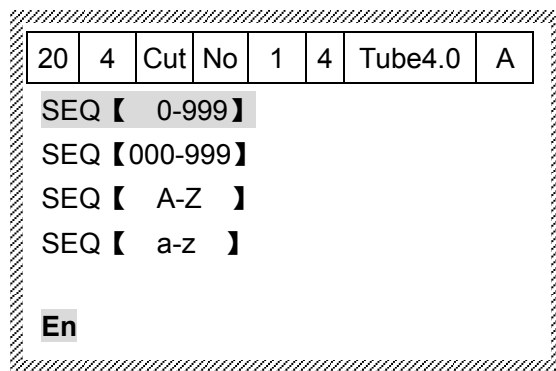
The sequence print function may be realized at any position in some certain row.

The function is to generate continuous row contents according to some certain rules by inputting the limited values or letters. The digital SEQ is a decimal number. And there is only one sequence number to print in a row.



5.11.1 Move the cursor to any position for sequence number printing in row.

Press **【SEQ】** , and there will be a display on screen:



5.11.2 Insert SEQ.

5.11.2.1 Insert digital SEQ.

SEQ form: 0~999 means natural numbers such as 0, 1, 2,.....999.

SEQ form: 000~999 means aligned numbers such as 001, 002,.....999.

Press **【↑】** or **【↓】** to select the **SEQ 【0-999】**. Press **【Enter】** and there will be a display shown on screen.

20	4	Cut	No	1	4	Tube4.0	A
----	---	-----	----	---	---	---------	---

SEQ 【0-999】

Start : |

En

Input a beginning digit sequence number, press **【Enter】** , and there will be a display shown on screen.

20	4	Cut	No	1	4	Tube4.0	A
----	---	-----	----	---	---	---------	---

SEQ 【0-999】

Start :

End: |

En

Input an end digit SEQ and complete the setting. Press **【Enter】** , and the interface will return automatically to the document input state.

Now, there will be a digital SEQ prompt on document input interface.

The prompt of natural digit SEQ (0~999) is

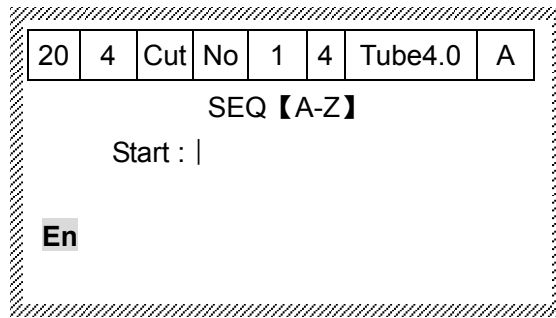
The prompt of aligned digit SEQ (000~999) is

5.11.2.2 Insert a letter SEQ.

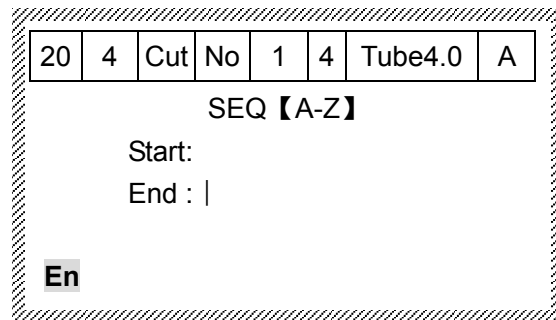
SEQ form: A-Z means uppercase English letters.

SEQ form: a-z means lowercase English letters.

After selecting **SEQ 【A-Z】**, press **【Enter】** , and there will be a display shown on screen.



Input a beginning letter SEQ, press **【Enter】**, and there will be a display shown on screen.



Input an end letter SEQ and complete the setting. Press **【Enter】**, and the interface will return automatically to the document input state.

Now, there will be a letter SEQ prompt on document input interface.

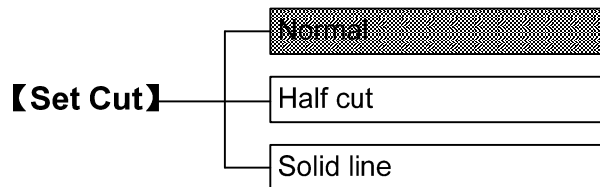
The prompt of uppercase letter SEQ (A-Z) is .

The prompt of lowercase letter SEQ (a-z) is .

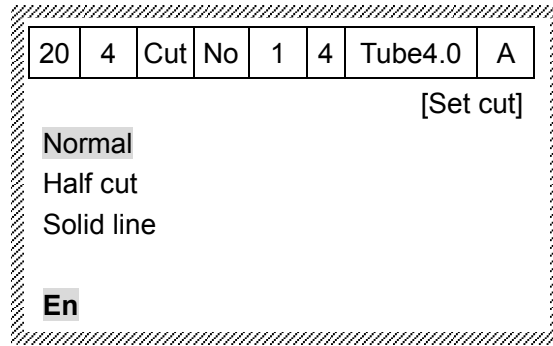
5.12 【Set Cut】

The setting is effect for all print contents.

The function is to set half cut, solid line (not Half-cut), normal (neither half cut nor solid line). The initial setting is half cut.



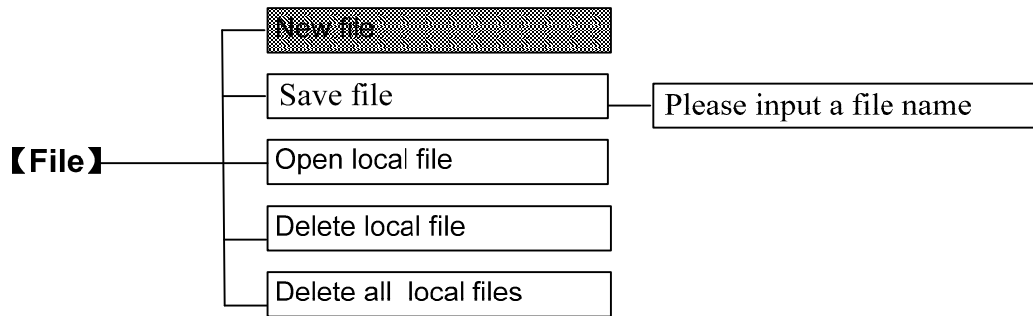
Press **【Set cut】**, and there will be a display on screen:



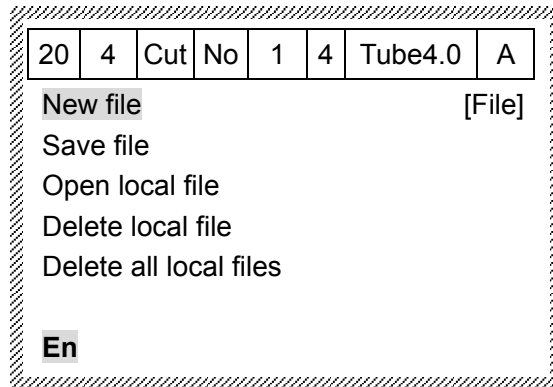
Press **↑** or **↓**. After selecting, press **Enter** to complete the setting. The interface will return automatically to the document input state.

5.13 【File】

The function is to specify a document name for all input data and then store in the machine. The stored document may be opened and deleted.



Press **【File】**, and there will be a display on screen:



5.13.2 New file

After selecting **New file**, press **Enter**,

- a) If there is not any content has been edited in operation, the following will

be displayed on screen.

20	4	Cut	No	1	4	TUBE4.0	A
----	---	-----	----	---	---	---------	---

6mm Label [Media]
 9mm Label
 12mm Label
 3.0 Tube
 6.0 Tube
 6.0 Tube
 Shrink tube
En

- b) If there is any content has been edited in operation, the following will be displayed on screen.

20	4	Cut	No	1	4	Tube4.0	A
----	---	-----	----	---	---	---------	---

Save current file?
 Yes No
En

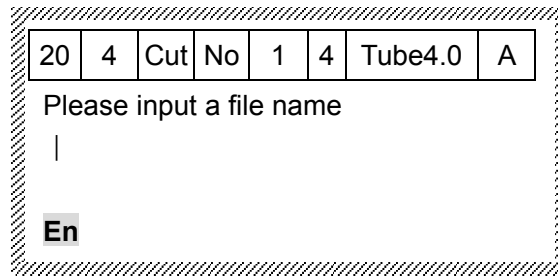
After selecting Yes, press **【Enter】** , and there will be a display shown on screen.

20	4	Cut	No	1	4	Tube4.0	A
----	---	-----	----	---	---	---------	---

Please input a file name
 |
En

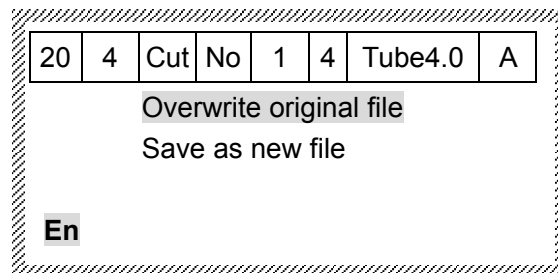
5.13.3 Save file

After selecting Save file, press **【Enter】** , and there will be a display shown on screen.



Input a document name (10 characters at most):

- a) If there is any input file name or the current document has been stored in operation, the following will be displayed on screen.



You may select to overwrite the original file or save it as a new file.

- b) If there is not any file name that you input, press **【Enter】** to save the file and return to the document input interface after inputting the file name.

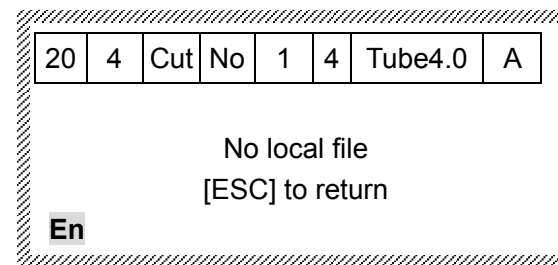
Note:

- The machine may store 100 files at most.

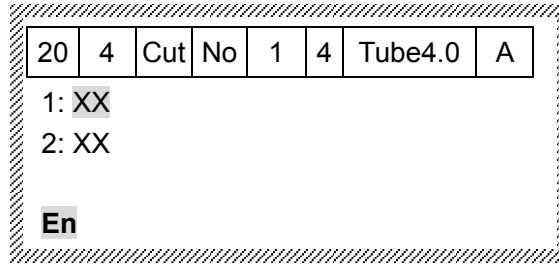
5.13.4 Open local file

Select **Open Local File**, and press **【Enter】**,

- a) If there is not any file, there will be a display shown on screen as follow.



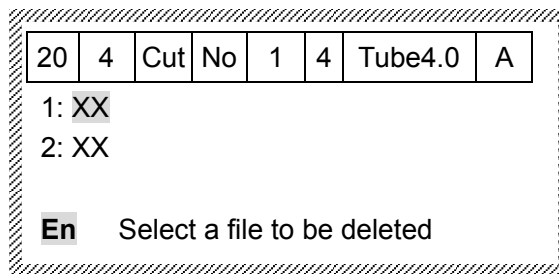
- b) If there is any file, there will be a display shown on screen as follow.



Select a file name, press **【Enter】** to open the selected file. The opened file will overwrite the originally existing document.

5.13.5 Delete local file

After selecting **Delete Local File**, press **【Enter】**, and there will be a display shown on screen.



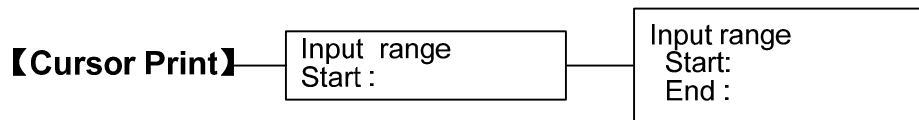
After selecting any file to delete, press **【Enter】**, the file will be deleted and the interface will return to the document input state.

5.13.6 Delete all local files

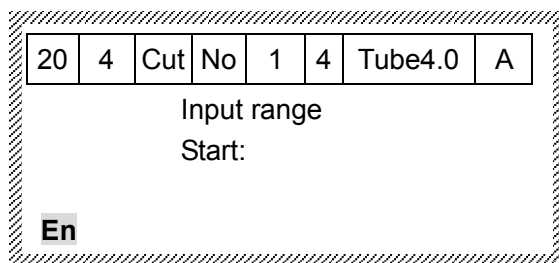
Select **Delete all local files**, press **【Enter】**, all stored files will be deleted, and the interface will return to the document input state.

5.14 【Cursor Print】

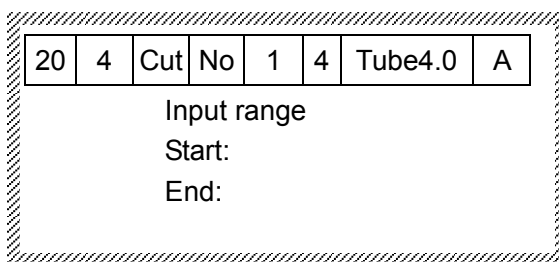
The function is to print according to the beginning row from your inputting to the end row (the blank row will not be printed).



Press **【Cursor Print】**, and there will be a display on screen:



After inputting a start row, press **【Enter】** , and there will be a display shown on screen.



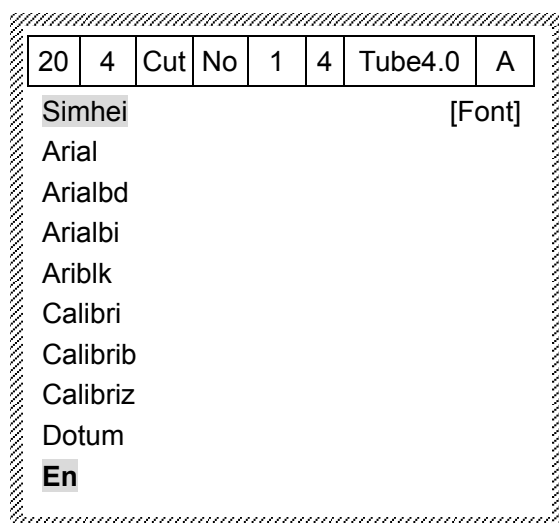
When input the row number of end row, press **【Enter】** , and the tube printer will begin to print.

If you do not input any start row number, this defaults that the first row is the start row number. If you not input any end row number, this defaults the last row is the end row number. This means that the machine will print from the first row to the last one of document if you do not input any start and end row number.

5.15 **【Font】**

The function is to select font.

Press **【Font】** , and there will be a display on screen:



5.16 【Copy Print】

【Copy Print】

Input copies:

Press **【Copy Print】** , and there will be a display on screen:

20	4	Cut	No	1	4	Tube4.0	A
Input copies:							
En							

When you input the print number, press **【Enter】** and the tube printer will begin to print.

5.17 【Stop】

The function is to ESC the print action of tube printer during the printing process.

Press **【Stop】** , the tube printer will stop printing, and there will be a display shown on screen.

20	4	Cut	No	1	4	Tube4.0	A
Printing suspended							
[ESC] to return							
En							

Note:

- During the printing process, only**【Stop】**can work, and any other button will not work.

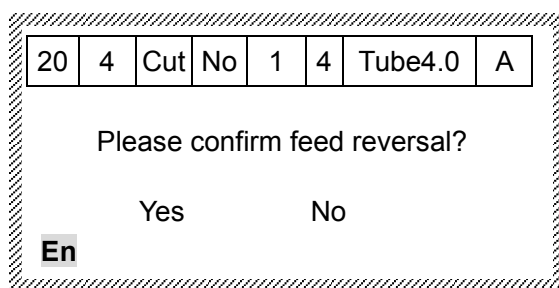
5.18 【Rev Feed】

The function is to reverse the rotation of rubber roller. Because of media difference or misuse, when the printing objects jam on the rubber roller, press the key to rotate it in reversion so as to take out the entanglement.

【Rev Feed】

Please confirm feed reversal ?
Yes No

Press **【Rev Feed】** , and there will be a display on screen:



After selecting **Yes**, press **【Enter】** , the rubber roller may rotate reversely. Repeat the operation till to take out the entanglement.

Note:

- Before carry out reverse operation, be sure to open the Upper Cover. The print head will return to a non-print state.

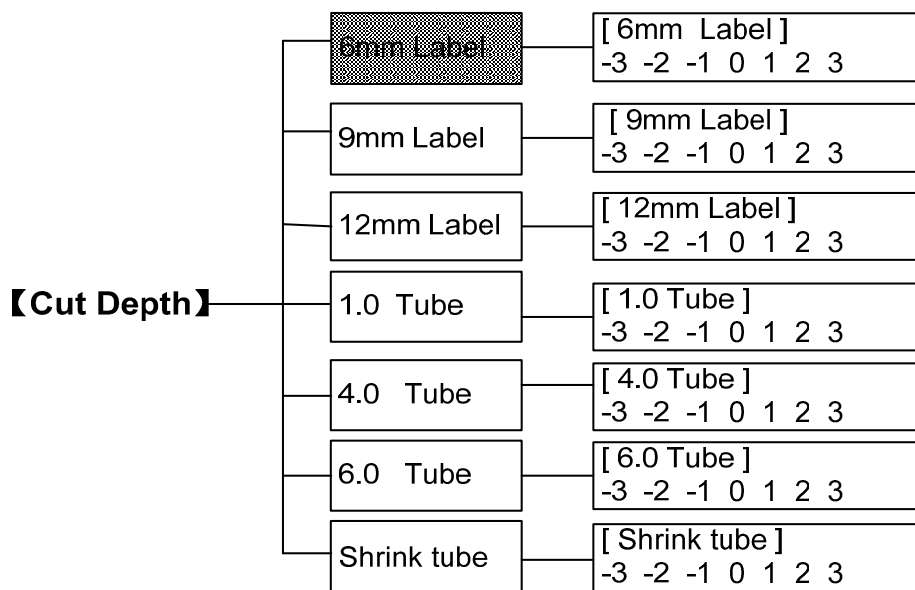
5.19 **【Home】**

The function is to move the cursor to the first row of current document.

5.20 **【End】**

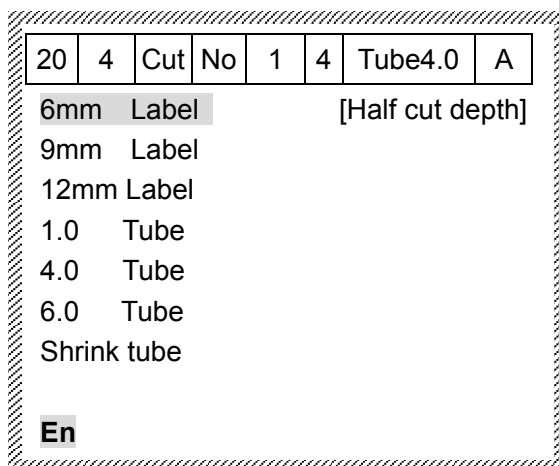
The function is to move the cursor to the last row of current document.

5.21 **【Cut Depth】**



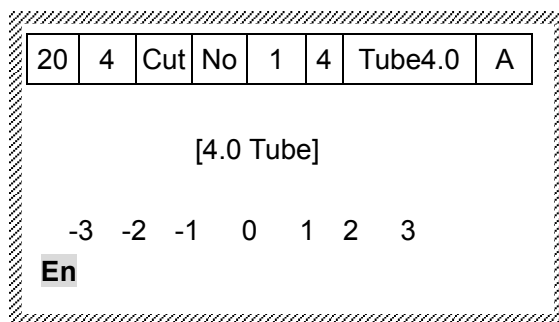
All half-cut depths of initial state are at the position of "0".

5.21.1 Press **【Cut Depth】** , and there will be a display on screen:



5.21.2 Adjustment of tube Half cut depth

Press **【↑】** or **【↓】** to select the model of pre-adjusted tube. If selecting 4.0, press **【Enter】** , and there will be a display shown on screen.



Press **【→】** or **【←】** to select an appropriate Half-cut depth, and complete the selection of tube Half-cut depth. The Half-cut depth will be increased from -3 to 3.

If there is still not any satisfied Half cut effect after selecting Depth of Half-cut 3, this indicates to replace the cutter group necessarily.

5.21.3 Adjustment of label half cut depth

Press **【↑】** or **【↓】** to select the model of pre-adjusted label. After selecting 9 mm label, press **【Enter】** , and there will be a display shown on screen.

20	4	Cut	No	1	4	Label 12	A
----	---	-----	----	---	---	----------	---

[12mm Label]

-3 -2 -1 0 1 2 3

En

Press **→** or **←** to select, press **Enter** to complete the selection of label half cut depth. The Half cut depth will be increased from -3 to 3.

If there is still not any satisfied half cut effect after selecting Half-cut Depth 3, this indicates to replace the cutter group necessarily.

5.21.4 Adjustment of heat shrink tube half-cut depth

After selecting **Shrink tube**, press **Enter**, and there will be a display shown on screen.

20	4	Cut	No	1	4	STUBE	A
----	---	-----	----	---	---	-------	---

[Shrink tube]

-3 -2 -1 0 1 2 3

En

Press **→** or **←** to select, press **Enter** to complete the selection of heat shrink tube Half-cut depth. The half-cut depth will be increased from -3 to 3.

If there is still not any satisfied half-cut effect after selecting Half-cut Depth 3, this indicates to replace the cutter group necessarily.

5.22 【Delete Seg】

The function is to delete the segment content that the cursor is located.

Move the cursor to any segment to be deleted. Press **Delete Seg**, and there will be a display shown on screen.

20	4	Cut	No	1	4	Label 6	A
----	---	-----	----	---	---	---------	---

Delete the current segment?

Yes No

En

Select Yes to delete the segment.

The segment will not be restored after being deleted. The rest rows may be reordered.

5.23 【Double Rows】

The function is to input double rows of characters in a row. It is set as 1 row originally. Move the cursor to the back of character printed in some certain row with row change. Press **【Double Rows】**, and there is a double rows prompt: The re-input contents after prompt are those in double rows.

Note:

- Do not set any double rows if print any 6 mm label.
- When print 9mm label to set a double rows, select character size1 and 2 only.
- When print 12mm label to set a double rows, select character size 1, 2 and 3 only.
- Do not set any double rows if print 0.5², 0.75², 1.0², 1.5², 2.5², and 4.0² tubes.
- When print 6.0² tube to set a double rows, select character size 1 and 2 only.
- After setting a double rows print, press the double rows key, and there will be a display shown on screen: Already double rows.

5.24 【X²】 【X₂】

The function is to generate a superscript or subscript.

5.24.1 X²

After moving the cursor to a character to generate the superscript, press **【X²】**

and there will be a superscript prompt after the character appears .

Then input a superscript character. For example, input a superscript 2 following with a character 5, the print effect is 5².

5.24.2 X₂

After moving the cursor to a character to generate the subscript, press **【X₂】**

and there will be a subscript prompt after the character appears.

Then input a subscript character. For example, input a subscript 2 following with Character A, the print effect is A₂.

Note:

- Once press the button of X²/ X₂, there is only one X²/ X₂. If one

character will generate many X^2/X_2 , Repeat to press the button of X^2/X_2 .

- The X^2/X_2 is invalid for setting No.1 character.

5.25 【Print】

The function is to print all row contents of current document on printed matter after various functions have been set and contents have been input.

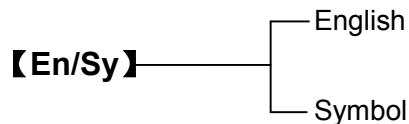
There will not be any print when printing any blank row.

During a printing process, there will be Printing..... shown on screen.

5.26 【Caps Lock】

Once press the key, transfer the uppercase and lowercase when inputting one time. The initial state is in a state of English uppercase.

5.27 【En/Sy】



The function is to converse the input functions such as English, and special symbols. The original state is in a stage of English Uppercase.

press **【En/Sy】** , select the English or Symbols

Select Sy,input number 1-8,you can select different symbols

Note:

- En: English Input method.
- Sy: Special symbol Input method such as electrical symbol.

5.28 【Backspace】

The function is to delete characters in the front of the cursor.

Move the cursor to the back of characters to be deleted. Press **【Backspace】** to delete characters in the front of cursor.

Press **【Backspace】** continuously to Del all characters in the row. But the SEQ of row cannot be deleted. Any blank row generated in the process will not be printed.

If delete any row, press **【Delete Seg】** .

Note:

- Any character will not be restored after being deleted.

5.29 【→】 , 【←】

The function is to move the position of cursor or carry out other function options.

5.30 【↑】 , 【↓】

The function is to move the cursor among rows or carry out other function options.

5.31 【Shift】

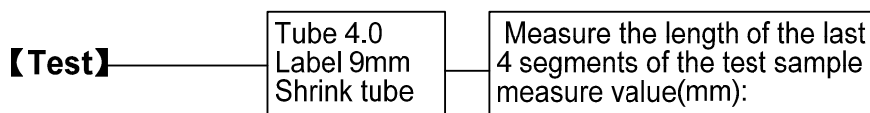
This is the Shift key.

5.32 【Test】

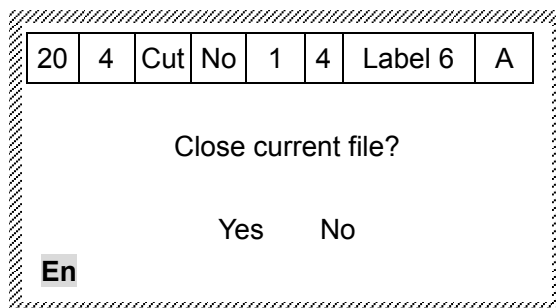
The function is to test the print effect of tube printer.

Because the ambient temperature is different or different manufacturers adopt different medias, the printed segment length may be different a little actually from the setting segment length.

If find there is a large difference between the actually printed segment length and the setting segment length in a daily print, use the function to adjust the actually printed segment length being consistent with the setting segment length.

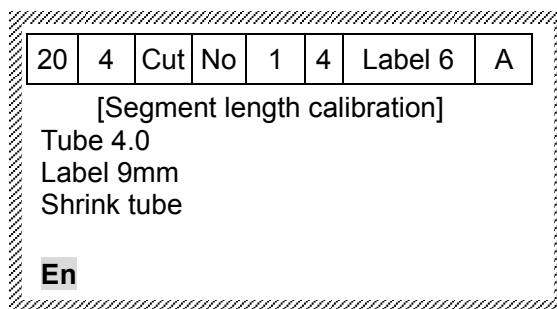


5.32.1 Press **【Test】** , and there will be a display on screen:



Select **No**, and return to the document input interface;

Select **Yes**, and there will be a display on screen:



5.32.2 Test

Select **Tube 4.0**, confirm to install the tube, press **【Enter】**, and begin to print.

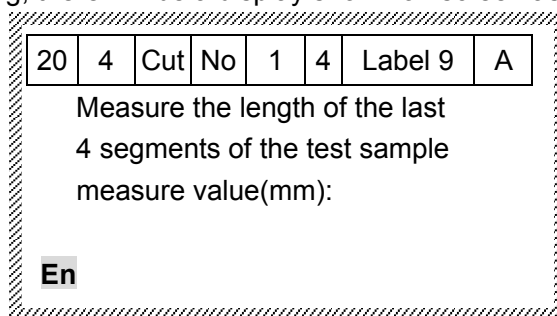
Select **Label 9mm**, confirm to install the label, press **【Enter】**, and begin to print.

Select **Shrink tube**, confirm to install the heat shrink tube, press **【Enter】**, and begin to print.

Now, you can check the print effect of tube printer.

5.32.3 Adjustment

After printing, there will be a display shown on screen as follow.



For example, the total segment length of last 4 segments is 98.5mm in measured print. After input "98.5", press **【Enter】**.

By the function, you can adjust the actually printed segment length to be consistent with the setting segment length.

5.33 **【Enter】**

By the function, you can generate a new row between some two rows or at the end of text.

5.33.1 Establish a new row at the end of document.

Move the cursor to the last row in document. Press **【Enter】** and there will be a new row generating at the end of document.

5.33.2 Insert a new row between some two rows.

If more the cursor to some certain row, press **【Enter】** and there will be a new row generating in the row.

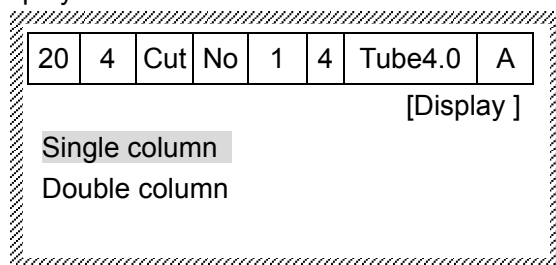
Note:

- The setting stage for generating a new row is same as the previous one.
- The sequence number of new row shall be arranged in sequence, and there will be 200 rows at most for inputting.
- Any newly generating row will be ignored in printing if contents are not input.

5.34 Single column and Double column Display Settings

The function is to set the display mode of screen.

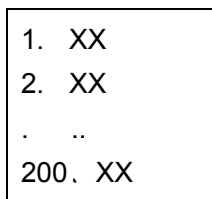
The screen is in an editing interface. Press **【Ctrl】+【Shift】+【K】** at the same time, there will be a display shown on screen.



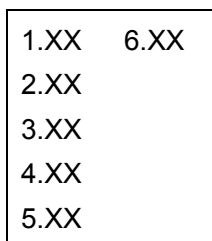
Press **【↑】** or **【↓】**. After selecting, press **【Enter】** to return directly to the input interface. There will be **Single column** or **Double column** shown on screen.

Note:

- Before setting, the machine will default it as **Double column**.
- **Single column**:



- **Double column**:



5.35 Screen Brightness Adjustment

Press **【Ctrl】** and **【Shift】** at the same time, combine with **【→】**, **【←】**, **【↑】**, and **【↓】** to adjust the screen brightness and contrast.

5.36 Repeat and SEQ Priority Print Settings

When the tube printer is in an editing interface, press **【Ctrl】 + 【Shift】 + 【A】** at the same time, there will be a display shown on screen.

20	4	Cut	No	1	4	Tube4.0	A
----	---	-----	----	---	---	---------	---

[priority]

Repeat priority

SEQ priority

En

Select any project to print in priority with **【↑】** and **【↓】** .

Note:

- If some certain row is set with SEQ and Repeat at the same time, the machine will default as **Repeat priority** that implements Repeat command firstly and then SEQ command.

Chapter 6 Performance Description

Model	TP80E
External function	Independent operation + computer control
Printing method	Thermal transfer
Resolution	300dpi
Character size selection	Label: No.1~7 Tube: No.1~5
Segment length setting	6-100 mm
Repeat times	1~200 times
Tube size	0.5 mm ² -6 mm ²
Label size	6 mm, 9 mm, 12 mm
Print speed	40 rows/min (half-cut, 20 mm/row)
Display	LCD white backlight, it may display 7-row characters, 10-row contents and 10 types of current setting.
Printable character	English, digit and special symbol
Input mode	English, Special symbol
Number of files that can be stored	100 files and each file with 200 rows (store 12,000,000 characters at most)
Media cutting way	Automatic half-cut and automatic full-cut
Tube feeding mode	Automatic tube feeding
Keyboard	With English keyboard (85-key standard keyboard)
Power supply	DC 12V 3A (both connection wire and adapter had passed through 3C certification)
Dimension	L×W×H: 320mm×280mm×100mm
Weight	3.2kg
Operating ambient temperature	15°C-35°C

Chapter 7 Computer Software of TP80E High-Speed Computer Tube Printer

Before on row printing, please exit the tube printer from function key operation interface to document input interface.

7.1 Software Configuration of TP80E High-speed Computer Tube Printer

CPU: PIII 500

Memory: 32M

Hard disk: 200M free space

Operating system: Windows 2000/XP/Win 7

Those being equivalent or higher than the above configurations can operate normally.

Chapter 8 Others

8.1 Specification of Original Consumables

Type	Name	Specification and Model
Ribbon	Ribbon cassette(Black)(100m/box)	TP-R100EB
	Ribbon cassette(Red) (80m/box)	TP-R80ER
	Ribbon cassette(White) (80m/box)	TP-R80EW
Label	Label cassette tape(white 12mm) (16m/box)	TP-L12EW
	Label cassette tape(Yellow 12mm) (16m/box)	TP-L12EY
	Label cassette tape(Sliver 12mm) (16m/box)	TP-L12ES
	Label cassette tape(White 9mm) (16m/box)	TP-L09EW
	Label cassette tape(Yellow 9mm) (16m/box)	TP-L09EY
	Label cassette tape(Sliver 9mm) (16m/box)	TP-L09ES
	Label cassette tape(White 6mm) (16m/box)	TP-L06EW
	Label cassette tape(Yellow 6mm) (16m/box)	TP-L06EY
	Label cassette tape(Sliver 6mm) (16m/box)	TP-L06ES
Cutters	Cutters	TP-HC12

8.2 How to Operate the Tube Printer Correctly

1. Be sure that your tube is clean. This is very important. First, protect the print head. Second, keep the inside of your machine being clean.
2. Ensure there is not any external force to effect on the tube so as to go into the machine smoothly.
3. Do not dismantle the machine without any authority. The tube printer is a precision machine. Inexperienced personnel may damage machine parts in demolition and lose the warranty service.
4. After operation, put it into a suitcase for custody.

8.3 Simple Troubleshooting

TP80E Tube Printer		
Fault Phenomenon	Fault Cause	Troubleshooting Method
The content is not centered after half-cut	Different medias with different segment lengths	Please adjust the position of contents in segment length by Margin.
Actual segment length is different from the setting	Different medias	Please adjust by the Test function.
Half -cut effect is not good	The lifetime of half cutter is out of service	Please replace it with a new one.
No printing action in on row printing	Not install any driving software	Please install the driving software.
Printing is not clear	Tube media is too hard There are stains on tube surface	Please clean the tube or replace it with a qualified one.
	Ribbon is curled	Please take it out. Use it after coiling and leveling, or replace it.
	Print head is worn or scratched	Please replace it.
	The setting of media does not correspond.	Please modify the media type setting of machine that shall be same as the ones in actual operation.
	Ambient temperature is too low or high	Please adjust the printing density or change the ambient temperature of machine operation.
Print writing is incomplete	Character size is set too large	Please reset a smaller character size.
	Ribbon is out of way	Please take it out and adjust it
	Media specification is not set correctly	Please set the machine with the same media specification in actual operation
	Print head is worn or scratched	Please replace it.
Act without print content	Print head is not connected correctly	Connect the print head correctly

	Print head is damaged	Please replace it.
Label sticks to cutter	Half-cut is too deep	Select a smaller half-cut depth.
	Rubber on blade	Clear the rubber from blade
Ribbon is out of way and curled	Tube adjuster	Replace the tube adjuster
	Ribbon	Replace the ribbon
Roller is wrapped with label	Rubber is left on label surface	Press [Rev Feed] to take it out
Print medias are not fed	External force on tube	Ensure the tensile force on tube is not more than 5.0N. Otherwise, the printer will not feed medias successfully.
	Roller is not clear	Please clean the roller.
	Foreign body in channel	Clean the channel

8.4 List of Special Symbols

Part_1

Symbol	、	。	・	-	∨	..	//	々	—	~
Number	1	2	3	4	5	6	7	8	1	2
	...	‘	’	“	”	{	}	<	>	《
3	4	5	6	7	8	1	2	3	4	5
》	「	」	『	』	【	】	【	】	±	×
6	7	8	1	2	3	4	5	6	7	8
÷	:	∧	∨	∑	∏	∪	∩	∈	::	√
1	2	3	4	5	6	7	8	1	2	3
⊥	//	∠	∩	⊙	∫	∫	≡	≅	≈	∞
4	5	6	7	8	1	2	3	4	5	6
∞	≠	≠	≠	≤	≥	∞	∴	∴	♂	♀
7	8	1	2	3	4	5	6	7	8	1
°	'	"	°C	\$	α	φ	£	%	§	№
2	3	4	5	6	7	8	1	2	3	4
☆	★	○	●	◎	◇	◆	□	■	△	▲
5	6	7	8	1	2	3	4	5	6	7
※	→	←	↑	↓	≡					
8	1	2	3	4	5					

Part_2

Symbol	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
Number	1	2	3	4	5	6	7	8	1	2
11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	(1)
3	4	5	6	7	8	1	2	3	4	5
(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
6	7	8	1	2	3	4	5	6	7	8
(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	①	②	③
1	2	3	4	5	6	7	8	1	2	3
④	⑤	⑥	⑦	⑧	⑨	⑩	(-)	(-)	(=)	(四)
4	5	6	7	8	1	2	3	4	5	6
(五)	(六)	(七)	(八)	(九)	(+)	I	II	III	IV	V
7	8	1	2	3	4	5	6	7	8	1
VI	VII	VIII	IX	X	XI	XII				
2	3	4	5	6	7	8				

Part_3

Symbol	±	⊕	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓖ	Ⓗ
Number	1	2	3	4	5	6	7	8	1	2
①	Ⓙ	Ⓚ	Ⓛ	Ⓜ	Ⓝ	Ⓟ	Ⓠ	Ⓡ	Ⓢ	Ⓣ
3	4	5	6	7	8	1	2	3	4	5
①	②	③	④	⑤	⑥	⑦	mm	cm	km	mm ²
6	7	8	1	2	3	4	5	6	7	8
cm ²	m ²	km ³	mm ³	cm ³	m ³	cc	ml	dl	l	mg
1	2	3	4	5	6	7	8	1	2	3
Kg	Å	°C	°K	mA	KΩ	KW	Hz	%	‰	col
4	5	6	7	8	1	2	3	4	5	6
¥	\$	¢	£	TEL	FIX	Kk.	No.	am	pm	
7	8	1	2	3	4	5	6	7	8	

Part_4

Symbol	あ	あ	い	い	う	う	え	え	お	お
Number	1	2	3	4	5	6	7	8	1	2
か	が	き	ぎ	く	ぐ	け	げ	こ	ご	さ
3	4	5	6	7	8	1	2	3	4	5
ざ	し	じ	す	ず	せ	ぜ	そ	ぞ	た	だ
6	7	8	1	2	3	4	5	6	7	8
ち	ち	つ	つ	づ	て	で	と	ど	な	に
1	2	3	4	5	6	7	8	1	2	3
ぬ	ね	の	は	ば	ば	ひ	び	び	ふ	ぶ
4	5	6	7	8	1	2	3	4	5	6
ぶ	へ	べ	べ	ほ	ぼ	ぼ	ま	み	む	め
7	8	1	2	3	4	5	6	7	8	1
も	や	や	ゆ	ゆ	よ	よ	ら	り	る	れ
2	3	4	5	6	7	8	1	2	3	4
ろ	わ	わ	ゐ	ゑ	を	ん				
5	6	7	8	1	2	3				

Part_5

Symbol	ァ	ア	ィ	イ	ゥ	ウ	ェ	エ	ォ	オ
Number	1	2	3	4	5	6	7	8	1	2
カ	ガ	キ	ギ	ク	グ	ケ	ゲ	コ	ゴ	サ
3	4	5	6	7	8	1	2	3	4	5
ザ	シ	ジ	ス	ズ	セ	ゼ	ソ	ゾ	タ	ダ
6	7	8	1	2	3	4	5	6	7	8
チ	ヂ	ツ	ツ	ヅ	テ	デ	ト	ド	ナ	ニ
1	2	3	4	5	6	7	8	1	2	3
ヌ	ネ	ノ	ハ	バ	パ	ヒ	ビ	ピ	フ	ブ
4	5	6	7	8	1	2	3	4	5	6
プ	ヘ	ベ	ペ	ホ	ボ	ボ	マ	ミ	ム	メ
7	8	1	2	3	4	5	6	7	8	1
モ	ヤ	ヤ	ユ	ユ	ヨ	ヨ	ラ	リ	ル	レ
2	3	4	5	6	7	8	1	2	3	4
ロ	ワ	ワ	ヰ	ヱ	ヲ	ン	ヴ	カ	ケ	
5	6	7	8	1	2	3	4	5	6	

Part_6

Symbol	A	B	Г	Δ	E	Z	H	Θ	I	K
number	1	2	3	4	5	6	7	8	1	2
Λ	M	N	Ξ	O	Π	P	Σ	T	Υ	Φ
3	4	5	6	7	8	1	2	3	4	5
X	Ψ	Ω	α	β	γ	δ	ε	ζ	η	θ
6	7	8	1	2	3	4	5	6	7	8
ι	κ	λ	μ	ν	ξ	ο	π	ρ	σ	τ
1	2	3	4	5	6	7	8	1	2	3
υ	φ	χ	ψ	ω						
4	5	6	7	8						

Part_7

Symbol	A	Б	В	Г	Д	Е	Ё	Ж	З	И
Number	1	2	3	4	5	6	7	8	1	2
Й	К	Л	М	Н	О	П	Р	С	Т	У
3	4	5	6	7	8	1	2	3	4	5
Ф	Х	Ц	Ч	Ш	Щ	Ъ	Ы	Ь	Э	Ю
6	7	8	1	2	3	4	5	6	7	8
Я	а	б	в	г	д	е	ё	ж	з	и
1	2	3	4	5	6	7	8	1	2	3
й	к	л	м	н	о	п	р	с	т	у
4	5	6	7	8	1	2	3	4	5	6
ф	х	ц	ч	ш	щ	ъ	ы	ь	э	ю
7	8	1	2	3	4	5	6	7	8	1
я										
2										

Part_8

Symbol	ā	á	ǎ	à	ē	é	ě	è	ī	í
Number	1	2	3	4	5	6	7	8	1	2
ĭ	ì	ō	ó	ǒ	ò	ū	ú	ǔ	ù	ũ
3	4	5	6	7	8	1	2	3	4	5
ú	ű	ű	ü	ê	ㄅ	ㄆ	ㄇ	ㄏ	ㄏ	ㄏ
6	7	8	1	2	3	4	5	6	7	8
ㄋ	ㄋ	ㄋ	ㄋ	ㄋ	ㄋ	ㄋ	ㄋ	ㄋ	ㄋ	ㄋ
1	2	3	4	5	6	7	8	1	2	3
ㄏ	ㄏ	ㄏ	ㄏ	ㄏ	ㄏ	ㄏ	ㄏ	ㄏ	ㄏ	ㄏ
4	5	6	7	8	1	2	3	4	5	6
ㄎ	ㄎ	ㄎ	ㄎ	ㄎ	ㄎ	ㄎ	ㄎ	ㄎ		
7	8	1	2	3	4	5	6	7		