SMD CHIP COUNTER COU2000 B

USER MANUAL

Preface

Thank you very much for you choosing TOPOINT SMD Chip Counter! You can make use of the COU2000 series products to achieve fast, convenient and error free SMD chip counting, so as to better manage materials. Before using this device, please first read this User Manual carefully, and keep it properly.

This product is subject to improvement and partial update without prior notice. Please contact our dealers or us if you have any questions.

We recommend that you keep the packing materials for this device for handling it in the future. Improper packing for this device may lead to its damage.

Damage of the warranty label resulting from unauthorized disassembling of the device parts will not apply to warranty services.

Contents

1. **Matters for attention**

After unpacking, please check the parts against the packing list.

Incorrect power supply may damage the device, so please make sure that the power supply is in compliance with the specification.

Please position the device at a stable and solid place.

In the light of ergonomics, we recommend that you use the device on a platform lower than 75 cm, it is regarded as the optimal when the user is able to sit at ease and see the display and the components in the pocket.

2. **Overview**

2.1 Application

COU2000 series products is a high efficiency assisting equipment of SMD materials control, it is based on photoelectric theory. It make use of the corresponding relationship between the tractive hole of the carrier tape and the pockets, so as to accurately determine the quantity of SMD parts, and achieve fast and convenient counting of the parts. It is undoubtedly a good help for materials management.

2.2 Features

2.2.1 High precision and free from counting errors.

2.2.2 All SMD general-purpose reeling packing parts are applicable.

2.2.3 Countable for in both forward and reverse directions, with double check feature; able to preset the quantity.
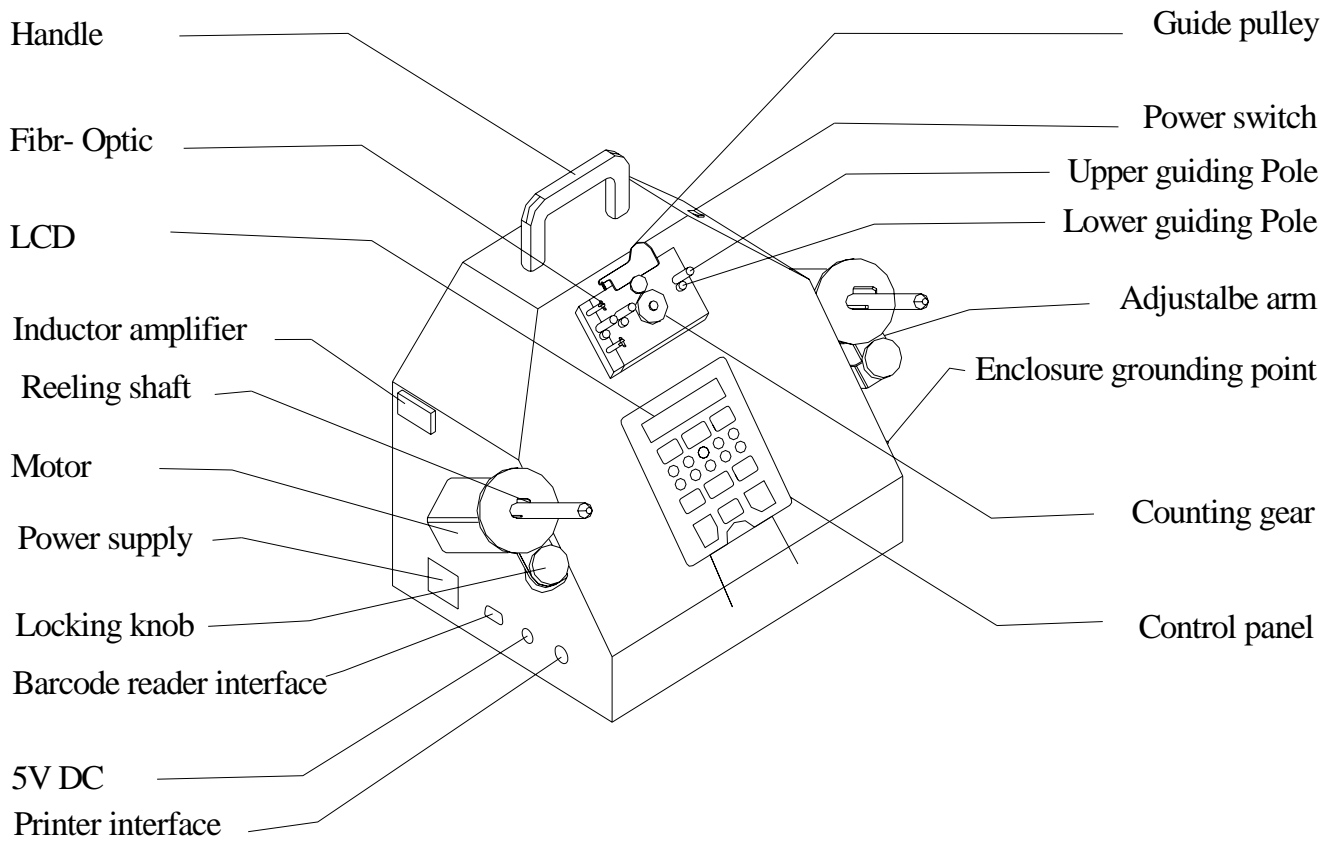
2.2.4 Simple operation and unique pocket falling-proof design will minimize the damage to the tape.

2.2.5 The patented inclined operation panel enables users to see the parts in both the display and the pockets.

2.3 Specifications

Electric Source	110V AC﹙50hz﹚25W
Counting range	-59999----+59999 PCS
Dimension(outer)	450*240*272mm (W*D*H)
Weight	9.5 kg

3. Parts description

Handle

Fibr- Optic

LCD

Inductor amplifier

Reeling shaft

Motor

Power supply

Locking knob

Barcode reader interface

5V DC

Printer interface

Guide pulley

Power switch

Upper guiding Pole

Lower guiding Pole

Adjustalbe arm

Enclosure grounding point

Counting gear

Control panel

4.Usage

4.1 Power on: select the workbench close to the power supply, connect the power supply, and position the cabinet onto the workbench.

4.2 Self check: press down power switch, and there will be the following display on the **LCD**:

```
SMD CHIP COUNTER
COU2000 SERIES
```

```
YY MM DD HH ： MM
20 04   05 26   14   ：   59
```

Then the display will be changed into….., indicating that the device has finished self check.

```
DATA   PITCH   SET
00000      1
```

4.3. Usage of operation panel:

- **TIME**: used to manage the time of the device; press the key to display the current time inside the device; press this key for ten seconds to enter the time setting display:

```
YY MM DD HH ： MM
20 04   05 26   14   ：   59
```

Key in the corresponding year, month, date and time, press the **TIME** key, and the display will automatically return back to:

```
DATA   PITCH   SET

00000        1
```
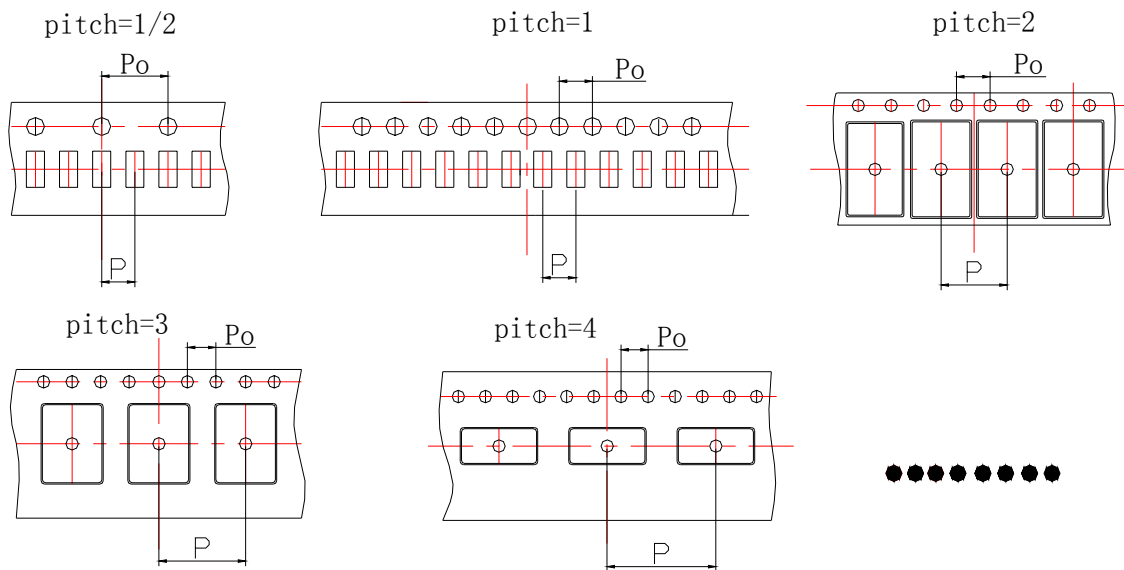
 Time setting is finished.

● **POCKET CHECK:** Applicable only to COU2000PC and COU2000ALL, it

is used to check whether any components are absent in the pocket; press this

key once to start the functions, and @ will be displayed on the upper left

corner of the **LCD**; if there are any pocket without components , the device

will automatically stop and give alarms. Press this key once again, and the

pocket check function will become invalid.

```
@ DATA   PITCH   SET

  00000        1
```

● **PRINT:** Applicable only to COU2000P , COU2000PC and COU2000ALL.It

use to print the quantity and the corresponding time; if a Bar-code reader is

connected, the barcode for the product will be printed on the label.

Note : When the data is not a positive number, printing will be forbidden.

● **PITCH:** Pitch value setting: according to the EIA-481 standard, the P: P_0 ratio

in the pockets fall within the following range: 1/2; 1; 2; 3; 4; 5; 6; 7; 8; 9; 10;

11; 12; 13; 14…; continue to press the PITCH key to set the correct pitch

value. The pitch is equal to P/P_0. That is, the pitch is equal to the number of

P_0s between the two neighboring pockets on the carrier tape (the P_0 for all the

pockets is 4mm).

PITCH=P/ P_0

- **PRESET:** when it is expected that a certain number of parts are to be counted, Preset function is helpful. Press the Preset key, enter the value, the device will stop at the corresponding location, and the desired quantity can be got through simple fine tuning; press the Preset key again to clear the set value, and the advance stop function will turn invalid.

```
DATA   PITCH   SET
00000    1     *****
```

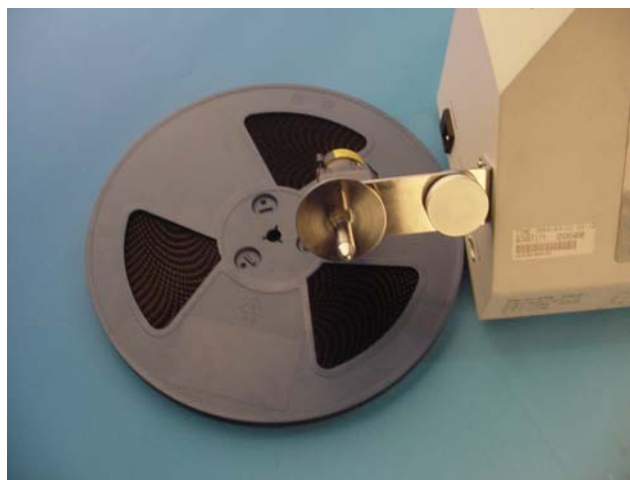**Note**: that the preset value above 59999 is invalid due to the Limitation of counting range.

- **CLEAR:** use it to clear when beginning to count.
- **START:** the motor on the right begins to rotate clockwise, the motor on the left is driven, and the counting value increases. The tape will gradually be rolled into the temporary reel from the original reel.

- **STOP:** the motor stops rotating.

- **REWIND:** the motor on the left begins to rotate anticlockwise, the motor on the right is driven, and the counting value decreases. The tape gradually rolls from the temporary reel back to the original reel. Note that when the counting value decreases to zero, the device will stop automatically, at the time, the pocket shall be back to the starting point, so as to reconfirm the accuracy of counting; press the Rewind key, the tape will go on rewinding, until it returns completely back to the original reel from the temporary reel.

4.4. Rotate **locking knob** in the anticlockwise direction, adjust the **adjustable arm:** when using the 7 inch reel, please position the **adjustable arm** at the location 45 degrees to the cabinet; when using the 13 inch reel, please position **adjustable arm** at the location 45 degrees to the cabinet; rotate **locking knob** in the clockwise direction, and lock the **adjustable arm** with the fixing bracket fast, as illustrated in the following figure:

7 inch reel / 45 Degree   13 inch reel / 90 Degree

4.5. Install the part reel to be counted onto **reeling shaft** on the left, so that the blades on **reeling shaft** are locked to the reel; install temporary reels of corresponding widths on the right; guide the starting part of the tape through the space between **upper guide pole** and **lower guide pole**, press the **guide pulley**, and hang the tractive hole, namely, D in Fig. 1, of the reel onto **counting gear**.
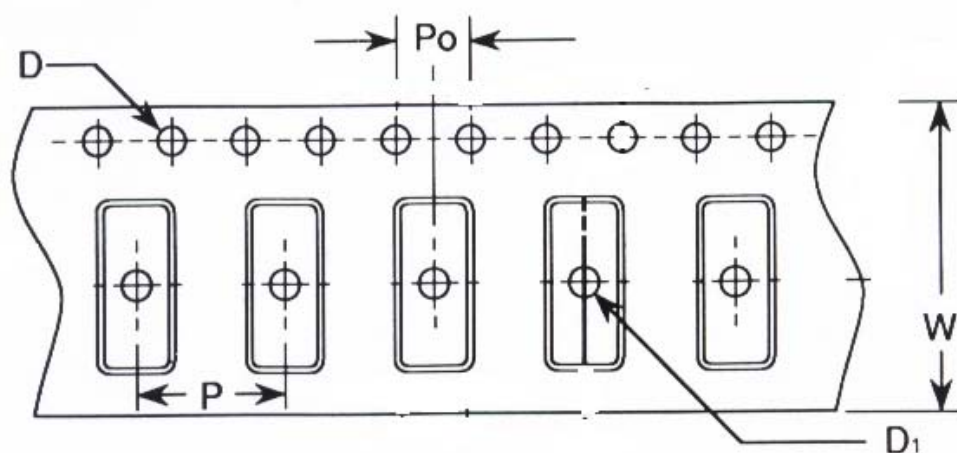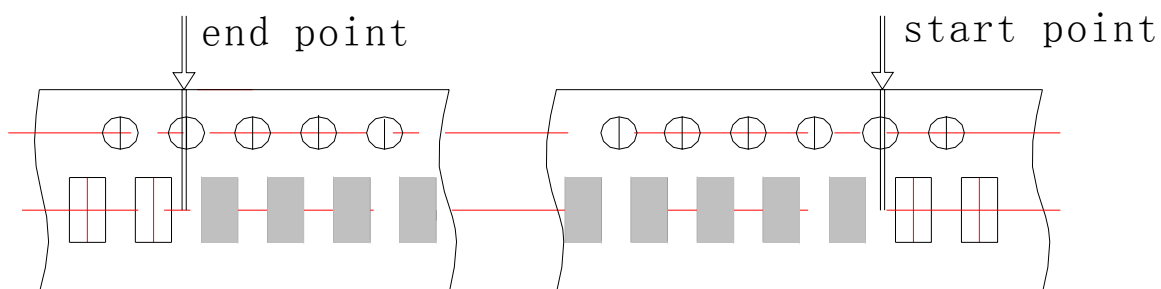

Fig. 1

4.6. According to item 4 mentioned above, press the **PITCH** key to set the corresponding pitch value.

4.7. Drag the tape by hand, align the first component with the arrow indicated on **guide pulley**; press the **CLEAR** key to clear.

About the first and last component

12/18   14:06   2005-12-10

4.8.Drag the tape and lead the tape into the temporary reel on the right and hang it to the hub of reel. Now, the value is increasing.

4.9.Press **START** key, and the motor will drag the tape in the forward direction, and the counting value will being to increase.

Note: whether in cases of manual or motor dragging of the tape, the counting value will be increased in the forward direction, and decreased in the reverse direction. The counting will be accurate only if the tape does not fall down from the counting gear.
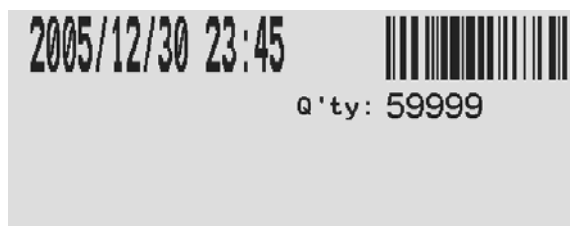
4.10. If there is the preset value, the device will stop at the corresponding location, drag the tape manually, until the last component is aligned with the arrow indicated on the **guide pulley**.   .

Note: because of the inertia of the motor and the different tensile forces of the pocket, the counting value where the device stops is often greater than the preset value.

4.11.If no value is preset, please press the **STOP** key to stop running when the tape is to come to an end, and drag the tape manually, until the last component is aligned with the arrow indicated on **guide pulley**.

4.12. At the time, the data displayed on the device is the quantity for the components in the tape. Please record it onto the original reel.

4.13. If a label printer is equipped, press the **PRINT** key to print the label; if a bar-code reader is equipped, scan the barcode on the original reel into the device, then the printed label will cover information such as time, quantity and bar-code, as shown in the following figure:

2005/12/30 23:45   ▐▌▌█▌▐█▌▌█▐▌▐█
Q'ty: 59999

without bar-code of component

2005/12/30 23:45   ▐▌▌█▌▐█▌▌█▐▌▐█
Q'ty: 59999
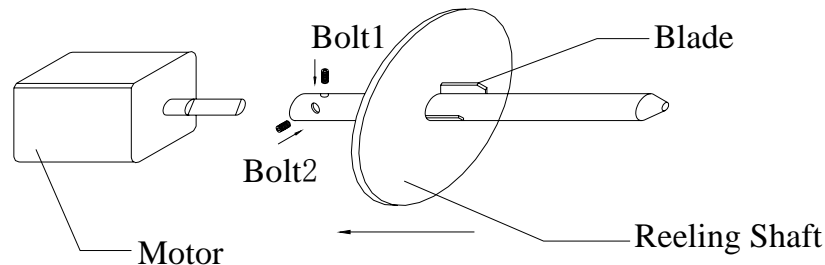▐▌▌█▌▐█▌▌█▐▌▐█▐▌▌█▌▐█▌▌█▐▌▐█
ABCDEFGHIJ-12345678901234 ᵥ

with bar-code of component

4.14.Press the **REWIND** key, and the tape will be rolled back from the temporary reel to the original reel. When the counting is decreased to zero, the device will stop automatically; drag the tape manually, and check whether the corresponding location zero at this time is consistent with location zero at start. This is called double check.

4.15. Press the **REWIND** key again, and all the tape will return back to the original reel.
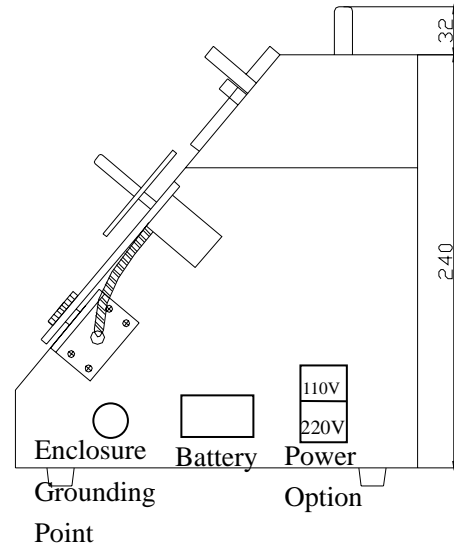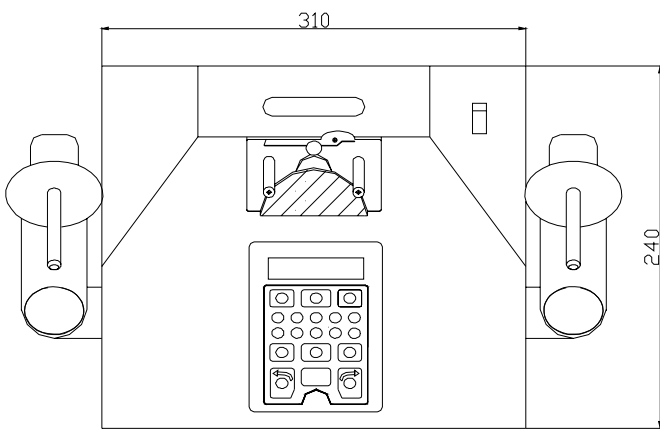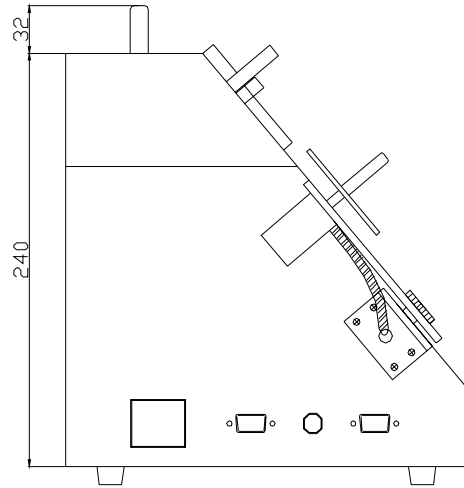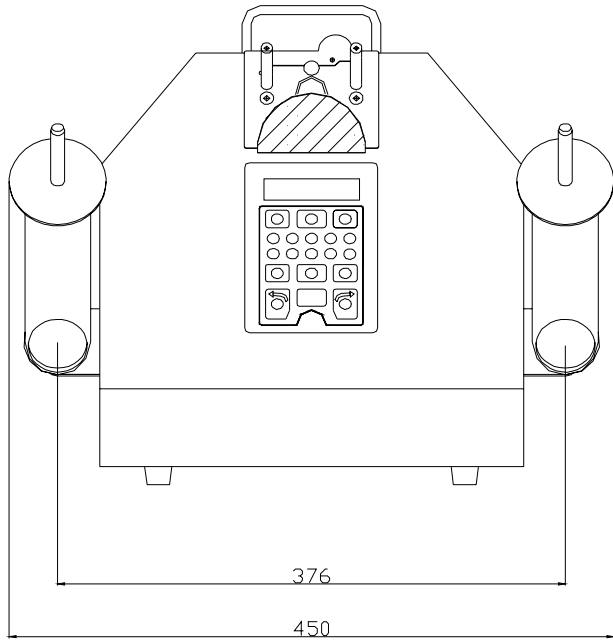
5. Maintenance

● Appropriate cleanness of **counting gear** is required for the COU2000 series products.

● Long time use of the device will result in locking loosening between the **reeling shaft** and **motor** shaft. In such a case, please use a hexagonal spanner to lock it fast.

● For every three months, please use the M3 hexagonal spanner to get **motor** shaft from **reeling shaft**, clean it before reassembly.

● When there is any distortion with **spring**, please get a spare spring to replace the original one.

6. Appendixes

6.1 Dimension:

376

450

310

240

240

32

32

110V

220V

Enclosure
Grounding
Point

Battery

Power

Option

6.2 Troubleshooting

Fault	Troubleshooting
Turn on the power switch, and there is no display on the LCD	1.Check whether the power supply is correctly connected; 2.The fuse is damaged, get a spare fuse from the power socket in the device.

6.3 Numerical part list

Part	Description
Cou2k-b	Cou2000 cabinet without communication board, without pocket check kit
Spring cou	Spring of guide pulley