High Accuracy Automatic Seed Counter

SLY-E

V4.6

Instruction Manual

Please carefully read this manual before use

CATALOG

Introduction

Automatic Seed Counter is used for counting granules. In agriculture, it is mainly apply for grain counting, such as: rice, wheat, Sorghum, corn, vegetables seed etc. When it reaches to the setting number, the instrument stops work. This instrument is widely used in institute of Agricultural Sciences, the agriculture universities, colleges and institutes; the seed system in the grain department inspects the seed target.

Work principle

The instrument is controlled by the microcomputer chip, Matches with membrane pressed key panel. Electromagnetic vibration plate makes granules move in a line till drop into photoelectric conversion slot and forms photoelectric pulse; after amplification plastic, the pulse inverting into counting circuit, and then readings displayed on LCD screen. Through values presetting, when the pre-set value reaches, instrument stop counting, and granule stop moving as well.

Function and features

1. Microcomputer automatic control, touch key, full automation, high precision.
2. 128 * 64 - inch screen shows, Readings display directly and visually.
3. The machine full metal shell, novelty and good-looking appearance and strong.
4. Self-tuning circuit, vibration speed adjustable, non-stop or stop methods all available.
5. Granules in round, long, big, middle and small size are all able to count.
6. Vibration plate stop running in two minutes if no operation.

Technical parameters

1. Count range: Small sample: less than 12*4mm / Big sample: less than 12*10mm
2. Count accuracy: Big sample 3/1000 / Small sample: 5/1000
3. Count speed: 1000 /3min
4. Count number range: 1~99999 LED display read direct.
5. Pre-set stop: 1~99999
6. Size: 450×300×320mm
7. Power: AC 220V±20V, 50Hz
8. The AC power is less than 60w, grounding is good

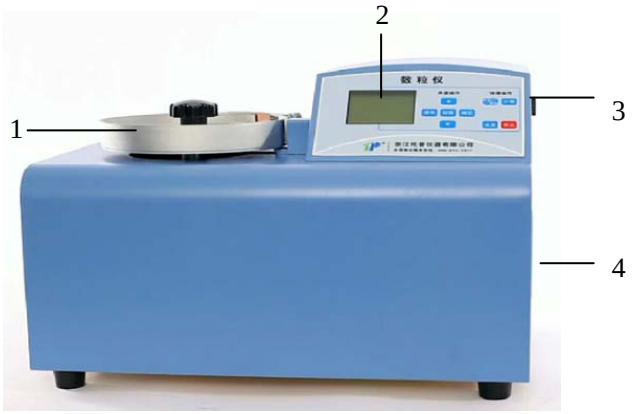
9. Working time: ≥5 Hours
10. Work environment: Atmospheric pressure: 750 ± 30 mm Hg

Environment temperature: -10℃~50 ℃

Relative humidity: <80% when 20 ℃

11. Instrument function: value set, any count, preset automatic stop

Instrument structure



No	Name	No	Name
1	Vibration plate	6	Channel knob
2	LED display	7	Power switch
3	SD card slot	8	Fuse holder
4	Sample outlet	9	AC220V power seat
5	Tight screw		

Operation

I. Installation:

- Install the vibration plate at the left side of the counter; fix it with the tight screw;
- Adjust the channel knob to suit the size of one granule. This is to ensure the granules can be passed and dropped into the photoelectric conversion slot one by one.

II. Instruction of the key buttons

Keys	Function instruction
COUNT	Reset count and timer, and then start the vibration plate to move and begin to count.
STOP	Close the vibration plate, save the current system time, number of grain number and the duration.
PAUSE CONTINUE	Control vibration plates to move or stop
MENU	Switch the main interface, save or back to previous interface
SWITCH	Switch selection
OK	Enter the selected item or exit after modify or save relevant Settings.
▲ ▼	Speed Up and down; or page up and down.

III. Quick start

Instrument operation:

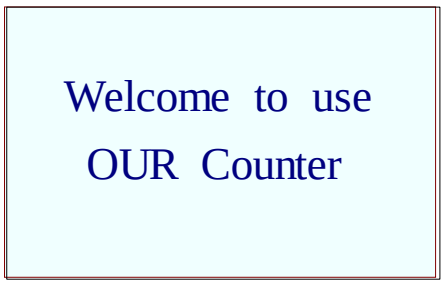
1. First, Installed the device as instruction " I" page 2
2. Secondly, place the seed or granules in the sample plate.
3. Open the side door and put the collecting box on the outlet.
4. Switch on the counter, and on the main interface, Pre-set the numbers you need, and then press COUNT to start, the count speed can be adjusted by up and down button, when count to the pre-set number, the instrument will stop automatically.
5. If the second count needed, first press STOP, and then press COUNT, the last readings on the screen will be reset for second count.

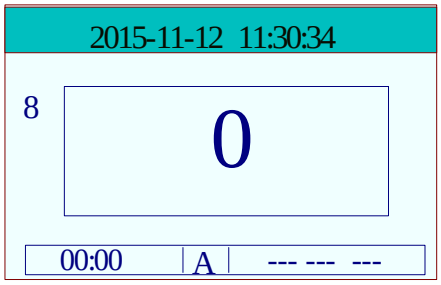
Note: The count speed shall be adjusted by pressing ▲ ▼ during the counting.

IV. Detail Operation Description

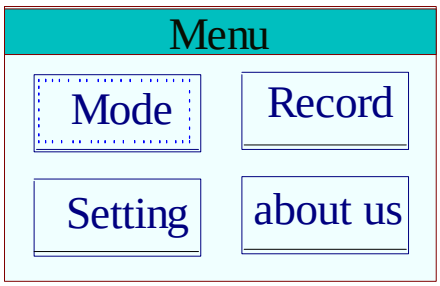
Switch on the counter by pressing the power switch behind the device, the

counter displays as below:



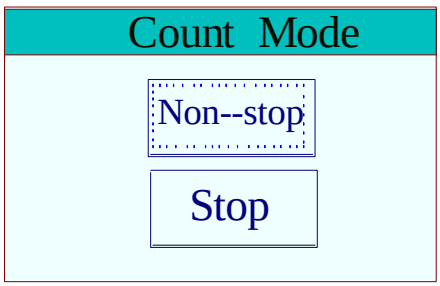


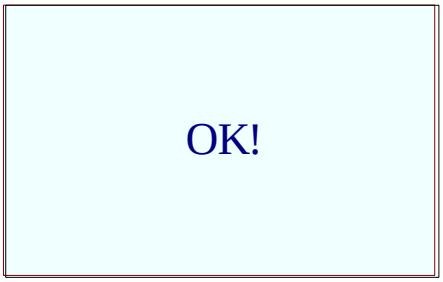
- Value at the top left corner "8" is the speed value. During the counter, press the up and down button to speed up or down.
- Press MENU to enter into the setting interface. Press SWITCH to select and OK to enter into the according interface to set.



1. Mode selection

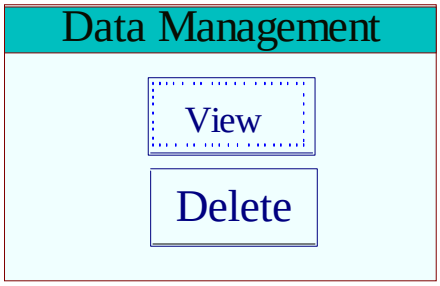
   ➢ Select the mode and press OK:

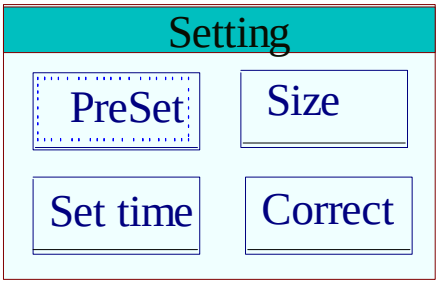




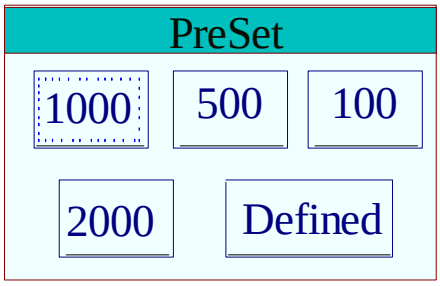
- Non-stop: count with no upper limit, the machine will not stop until there is no sample dropping and no operation for 2minuts. If need continue to work just press the PAUSE CONTINUE once again; if no need, press STOP.
- Stop: if select this mode, please setting the pre-set value on "**Setting**"-"**PreSet**". For example, if preset the value as 1000, so the time meter count to 1000, it will stop counting immediately.

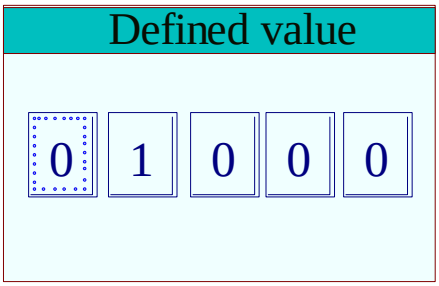
2. Data management and Parameter setting



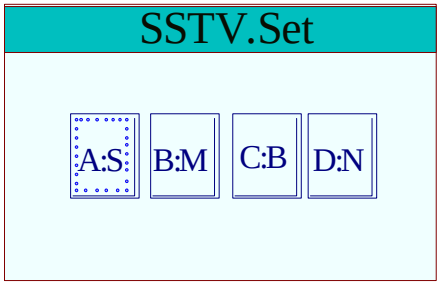


- Pre-Set: it is cooperatively used with the STOP count mode.



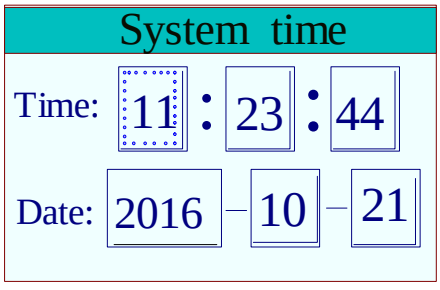


- Size (or SSTV.Set): it means sensitivity setting. It is divided in A, B, C, D class.
  A is for small size samples.
  B is for middle size samples
  C is for big size samples
  D is for all size samples



- Correct: It is used when the count is not accuracy. For now it is only a reserved function.

3. System time and About us:



Attentions

- Count sample: the sample should be uniform and pure, because the less impurity sample, the more count accurate will be.
- The Channel knob should be adjusted according to the size of sample. if the sample is big, then loosen the knob; if small, tighten the knob accordingly. The appropriate width of the channel is only suitable for one sample in a line once.
- Samples should be poured into the plate too much. Otherwise it will affect the vibration speed.
- If the count mode is Non-stop one, then before it counting, the value when you pre-set should be more than the number will be count. For example, if one pack of sample is about 500, then the pre-set value should be set more than 500, such as 600.
- When voltage changed, the count speed will be slight affected

Common malfunction and trouble removal

- ✧ Screen is dark after power on: check whether the plugs, wires, switches and fuse are normal no not.
- ✧ The counter do not count when the photoelectric drop hole is jammed up: Remove the tray sticks and dredge the drop hold.
- ✧ The sound is loud and the samples do not move towards the drop hole : adjust the tight knob of the vibration plate,
- ✧ Counter crash, or button is insensitive: restart the counter

Packing list

Name	Quantity	Name	Quantity
Counter	1	ϕ5×20, 250V,1A fuse	1
Vibration plate	1	User manual	1
Collecting box	1	12V, 0.04A light bulb	1
Power line	1	Card reader	1
Tight knob	1	4G SD Card	1
Hopper	1		