Galaxy 330

Colony Counter

Important notice

This instrument is designed for laboratory usage only. Please read this manual carefully before installing or operating this equipment. The instrument shall not be modified in any way. Any modification will void the warranty and may result in potential safety hazard. We are not responsible for any injury or damage caused by modifying the instrument without authorization. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Specification of the instrument:

- input power: 12Vd.c. 1A.
- IP code: IP20.

Unpacking

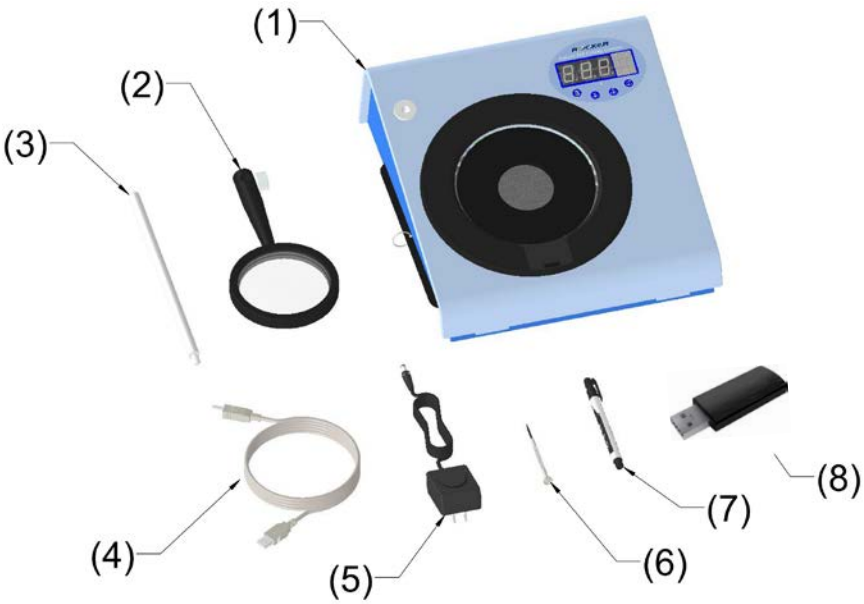
When you unpack your new colony counter for the first time, check the packing list to make sure you have received everything you should have. If there is anything missing or damaged, please preserve serial no., shipping carton and call the dealer from whom you purchased for assistance.

Model	Galaxy 330		Galaxy 330 Software (Optional)	
Packing List	Galaxy 330 Colony Counter	x1	PC Software USB flash drive	x1
	Magnifier	x1	USB connecting cable	x1
	Magnifier holder	x1	Instruction manual	x1
	AC/DC switching adaptor	x1		
	Marking pen (Black)	x1		
	Screwdriver	x1		
	Instruction manual	x1		

Notice of Operation

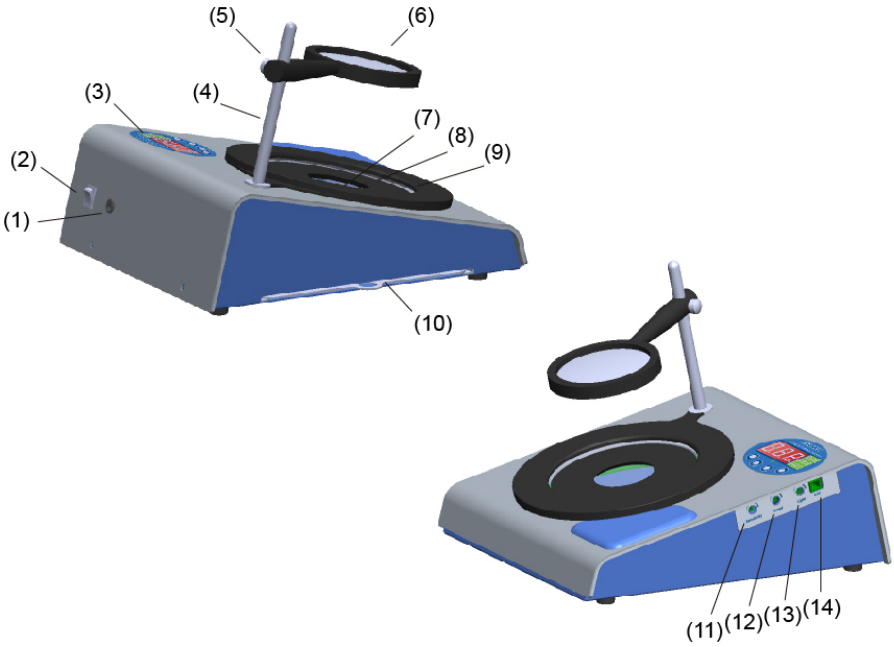
1. To avoid the instrument from being burnt or disordered on operation, please use 12V DC power adaptor and USB connecting cable supplied by manufacturer for operation.
2. Don't scratch the surface of Petri dish holder to avoid affecting the illumination of backlight.
3. Please discard packing material according to related regulations.
4. Operating environment:
    a. Indoor use.
    b. Altitude up to 2 000 m.
    c. 5℃ to 40℃.
    d. 80% RH Max.
    e. Main supply voltage fluctuations up to ±10 % of the nominal voltage.
    f. Overvoltage category I.
    g. POLLUTION degree II.

Assembly



Item	Description
1	Galaxy 330 Colony counter
2	Magnifier
3	Magnifier holder
4	USB connecting cable (Optional)
5	AC/DC switching adaptor
6	Screwdriver
7	Marking pen (Black)
8	PC Software USB flash drive (Optional)

Main Part Diagram

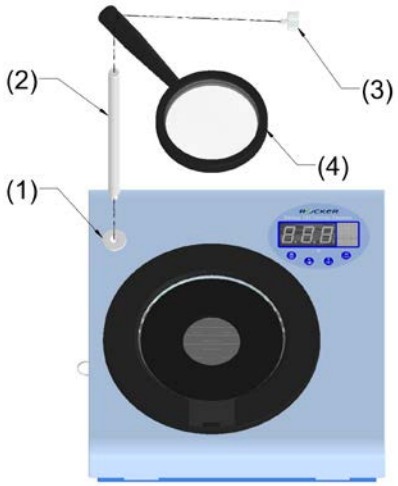


Item	Description	Item	Description
1	Power socket	8	Petri dish holder (60mm)
2	Power switch	9	Adjustable Petri dish holder (90~150mm)
3	Control panel	10	Background plate
4	Magnifier holder	11	Pressure sensitivity regulator
5	Adjustable screw	12	Acoustic counting signal regulator
6	Magnifier	13	Light intensity regulator
7	Petri dish position	14	USB connecting port

Introduction of Control Panel

Item	Description
1	Counted value display (LED-A)
2	Storage value display (LED-B)
3	Storage value display (LED-C)
4	Storage value display (LED-D)
5	Save / Next
6	Average / Previous
7	Back / Exit
8	Delete
9	USB Connecting indicator (Green: connecting / Red: off)

Installation



Item	Description
1	Magnifier position
2	Magnifier holder
3	Adjustable screw
4	Magnifier

1. Plug the power cord into the main unit and make sure the supplied voltage is within affordable range of power adaptor.
2. Install the magnifier on the main unit by following above diagram and adjust the height of magnifier properly.
3. If you want to transfer the counting data to a computer, please use USB cable provided to connect PC and colony counter and start the operation of software. For the first time use, please install the software by referring to the file of “PC Software Installation and Operation” on USB flash drive.
4. Please use the screwdriver provided to adjust the pressure sensitivity, acoustic volume, illumination required.
5. Change background plate (White/Black) if necessary
6. Please keep the Petri dish position and the magnifier clean to assure good light transmission.

Operation

Key and Signal

(1) Normal Mode：

	SAVE	Store the count in the memory
	AVERAGE	Average saved counts <display value on (LED-A) >
	BACK	Decrease the value on (LED-A) (alarm with a bleep)
	DELETE	Delete the count < alarm with long bleep>

(2) View Mode：

	EXIT	1). Press and hold this key for 1 second to enter < View Mode > when the display on (LED-A) is "000". 2). Press this key again to exit the <View Mode>
	NEXT	Check the next record
	PREVIOUS	Check the previous record
	DELETE	Delete selected record on display (LED-B/C/D)

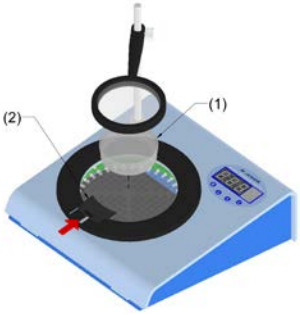
(3) Indicator Light：

Green light: when the green light is ON means the connection is normal and data transmission is successful. When light FLASH means the data is under transmission.

Red light: when the red light is ON means the connection is abnormal and data transmission is failed.

No light: it means the PC connection is not detectable.

Operation under Normal Mode

	Place the Petri dish (1) on the dish holder and slide the adjuster (2) properly. Attention: For the Petri dish with 60mm in diameter, you can use “Petri dish holder (60mm)” to fix the Petri dish.
	Ensure the display on LED-A is "000" and no count display on LED-B、LED-C and LED-D before counting. If the count shows up, please press “DELETE” key to clear the memory.
	Mark each colony with a marker pen. Every time a colony is marked, the apparatus will register the count on LED-A with a bleep and counter advance.
	Press the “BACK” key if over counting occurs (alarm with a bleep)

	After counting, press the “SAVE” key, the saved count will be displayed on LED-B.
	Place the next Petri dish and press <SAVE > key to resume the count. Repeat until all dishes have been counted. The saved counts will display on LED-B, LED-C, LED-D in order.
	After finish counting, press and hold “EXIT” key for 1 second to enter < View Mode > to check the saved counts. Press “EXIT” key again to be back to <Normal Mode>
	Press the <AVERAGE> key to display the average count that calculated from all previously saved counts.

Notice：

(1) If the counted Petri dishes are over 3 batches, the display will only show the record of latest 3 batches. For the record of previous counts, it will be saved, but not show on display.

(2) **The main unit can store up to 100 records in memory. It will fail to work if the record is over 100. Please delete the record or activate "AVERAGE" facility, so the main unit can resume working.**

If the main unit connects to PC, the saved counts and average counts will be sent to the software on PC when you press "AVERAGE" key.

Please refer to the file of "Installation and Operation of Software" on USB flash drive for operation of software.

Operation under View Mode

	Press and hold "EXIT" key for 1 second to enter < View Mode >. ***Notice: The display LED-A will show the total record numbers before you releasing the "EXIT" key.***
	After releasing the "EXIT" key, the saved counts will display on LED-B/C/D. The selected count will flash and LED-A will show the record number of selected count.

	Press the “NEXT” key to check the next record. It will alarm with a bleep when it goes to the last record.
	Press the “PREVIOUS” key to check the previous record. It will alarm with a bleep when it goes to the first record.
	Press “DELETE” key to delete flashed record. It will alarm with a long bleep.
	Press “EXIT” key to be back to <Normal Mode>

Maintenance

1. After every use, please wipe the Petri dish position, the magnifier and surface of colony counter by 75% alcohol for sterilization and to gain good illumination.
2. Please keep the instrument in well packed box to avoid the instrument from being attached by the dust if you plan not to use it for long time.

Troubleshooting

Symptoms	Possible causes and Solution
Device fails to start	1.Check the power supply conform to power specified (DC12V) on main unit 2.Check if the power switch is in the ON position 3.Malfunction of internal parts or internal tubing are loose→ contact your distributor for repair
Poor LED lighting	1. Adjust the light intensity with a screwdriver 2. The backlight plate or mainboard is broken→contact your distributor for repair.
Acoustic counting signal is too low	1. Adjust the volume with a screwdriver 2. Mainboard is broken→contact your distributor for repair.
Poor pressure sensitivity	1. Adjust the sensitivity with a screwdriver 2. Mainboard is broken→contact your distributor for repair.
The main unit fails to connect with PC	1.Check if USB cable is connected with the main unit and computer. 2.Check if USB driver programming is installed 3.Make sure if the PC software is active. 4.Mainboard is broken→contact your distributor for repair.

Order Information

175330-01	Galaxy 330, Colony Counter with AC100-240V adaptor, US plug
175330-02	Galaxy 330, Colony Counter with AC100-240V adaptor, EU plug
175331-01	Galaxy 330, Colony Counter with software, AC100-240V adaptor, US plug
175331-02	Galaxy 330, Colony Counter with software, AC100-240V adaptor, EU plug