

# **UGAIYA**

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# UGAIYA



# Rapid Readout Biological System



Steam



Steam



**Steam** 



**VHP** 









<sup>\*</sup>Images and parameters herein are only for reference and subjected to change without notice. UGAIYA reserves the right of final interpretation.

### Auto Reader

Ugaiya Rapid Reader adopts spectrum analysis technology to monitor the fluorescence changes of the Bacillus Stearothermophilus with special enzyme to rapidly judge whether there is surviving spores. The Reader is compatible with most popular rapid readout biological indicators in the market and can be used to validate the sterilization efficacy of sterilizers. The Rapid Reader is able to make judgments within 20~240 minutes to ensure implantation operations can be carried out in time, and in the meantime, a report can be printed for traceability.

UG-AR400 Reader For 6 Types B.I.







UG-AR300 Reader For 180min steam B.I.







Features

Language

#### D:

· Multiple languages.

**Indication Light** 

### **Progress Checking**

• Incubation status and working status of the incubator can be shown by the indication light.

 Display the current status, incubation countdown, fluorescence strength (percentage) and incubation result.

### Display

 Incubation time and temperature are displayed at the same time for convenient checking.



### **Smart Recognition**

**Advantages** 

- · Most non-BI articles can be recognized.
- Available BI can be indicated automaticly, without manual confirmation. If you want to check during the process, put it back within specific time, the system will continue to incubate.
- Touch the screen to stop the alarm.



#### **Smart Cloud Service**

- Possibility of user change with incubations in progress.
- Incubation and sterilization record can be accociated and checked by IE Browser & PC software.



#### **Smart Monitoring**

• Open communication protocal compatible with traceability system for instant reporting.



#### Smart Checking

- History incubation record can be checked by associated monitoring software.
- · History report can be customized and printed.



#### Smart Alarm

- · Instant self-test, fault safety protection.
- · Visual and sound alarm for fault and result.



#### **Smart User-Friendly Design**

• With an easy handling as well as a clear and well arranged display for real-time monitoring of the incubation process.

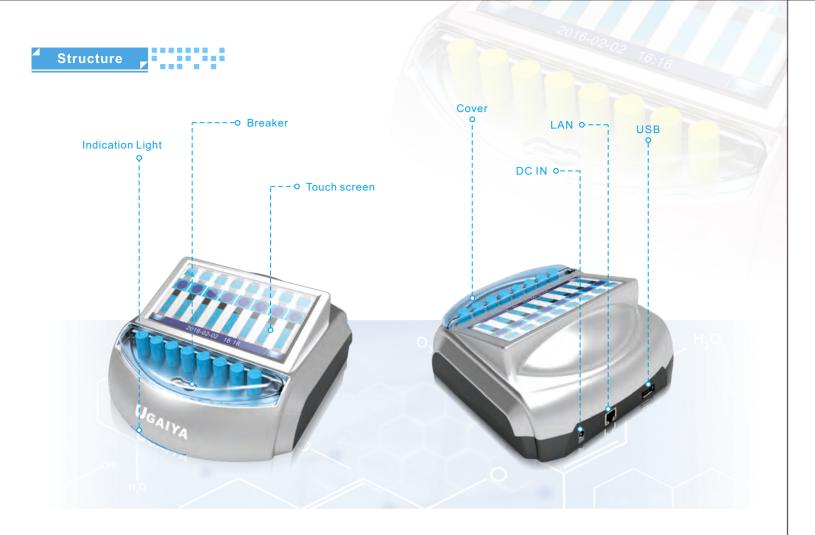


Local server



Smart Record Control Service

Software



### Parameters , .....

Model	UG-AR400	UG-AR100	UG-AR300	UG-AR500	UG-AR901
For BI types	Six types	UGBI0101	UGBI0301	UGBI0401	UGBI0901
Rated Power(W)	20	20	20	20	20
Power Supply	DC 12V 3A				
Ambient Temp.	5°C-40°C	5°C-40°C	5°C-40°C	5°C-40°C	5°C-40°C
Ambient RH	$\leqslant$ 95%(noncondensing)				
Ambient Pressure	Atmospheric Pressure	Atmospheric Pressure	Atmospheric Pressure	Atmospheric Pressure	Atmospheric Pressure
Incubation Temp.	58±2°C & 36±1°C(adjustable)	$58\pm2^{\circ}C(adjustable)$	$58\pm2^{\circ}C(adjustable)$	$36\pm1^{\circ}C(adjustable)$	$58\pm2^{\circ}C(adjustable)$
Judgment Time	4~240 min	15~60 min	30~180 min	60~240 min	15~60 min
Incubation Slots	8	8	8	8	8
Screen	7" TFT touch screen	7" TFT touch screen	7" TFT touch screen	7" TFT touch screen	7" TFT touch screen
Net Weight(kg)	1	1	1	1	1
Exterior Dimension	246X214X100(mm)	246X214X100(mm)	246X214X100(mm)	246X214X100(mm)	246X214X100(mm)
USB	Υ	Υ	Υ	Υ	Υ
LAN	Υ	Υ	Υ	Υ	Υ
Input	~100V-240V 50/60Hz				
Output	DC 12V 3A				

### Rapid Readout Biological Indicators









### Advantages \_\_\_\_\_



- Provides results in 20~240 minutes.
- Applicable for 121°C gravity & 132~135°C vacuum steam, EO, LTSF and VH₂O₂ sterilization cycles.
- Self-contained biological indicators significantly reduce possibility of cross infection, minimizing false positives and assuring more precision results.
- Fast result time to ensure quarantine every load and eliminate recalls.
- It helps reduce the costs associated with fighting infections both money and time wasted.

### Parameters ,

Model	UGBI0201	UGBI0101	UGBI0301	UGBI0102	UGBI0401	UGBI0103
Application	Vacuum&Gravity	Vacuum & Gravity	Vacuum & Gravity	Hydrogen peroxide vapor	Ethylene oxide	Formaldehyde vapor
Organism	G-stearothermophilus	G-stearothermophilus	G-stearothermophilus	G-stearothermophilus	Bacillus atrophaeus	G-stearothermophilus
Population (mean/strip)	≥1.0x10°c.f.u.	≥1.0x10°c.f.u.	≥1.0x10°c.f.u.	≥1.0x10°c.f.u.	≥1.0x10 <sup>6</sup> c.f.u.	≥1.0x10°c.f.u.
D-value	≥1.5 min(121°C steam)	≥1.5 min(121°C steam)	≥1.5 min(121°C steam)	≥1s (50°C,5mg/L VH <sub>2</sub> O <sub>2</sub> )	$\geqslant$ 2.5 min $^{(54\pm1^{\circ}\text{C},60\pm10\% \text{ RH},}_{\text{EO }600\pm30\text{mg/L}})$	$\geqslant$ 6 min ${}^{(60\pm0.5^{\circ}\!\text{C}}_{0.01\text{mol/L}}$ LTSF)
Incubation Time	4min~20min(readout)	15min~60min(readout)	30min~180min(readout)	4min~20min(readout)	60min~240min(readout)	15min~60min(readout)
Frequency of Use	Test 1 time every sterilization cycle	Test 1 time every sterilization cycle	Test 1 time every sterilization cycle			
Packing	50pcs/Box	50pcs/Box	50pcs/Box	50pcs/Box	50pcs/Box	50pcs/Box

### Incubator





### Safety

• Double temperature control to limit temperature safely.

### Smart Checking

• Equal temperature automatically without deviation and no need to calibrate.

### Smart User-Friendly Design

• Incubation rack is dismountable mobile and rotatory.



### Automatically

• Automatic malfunction detecting and error code display.

### Display

- Real time temperature display.
- LED display.

### Saving

· Average power: 8W.

### Parameters

	Model	UG-AI400
Electrical	Rated Power(W)	25
Data	Power Supply	DC 12V 3A
	Temperature Range	From Temp. Room to 80 degree
	Warming-up Time(from 20 to 56degree)	About 10mins
Functions	Temp. Precision	±0.5°C
Functions	Display Precision	0.1 °C
	Incubation Slots	12~19
	Screen	LED
Dimensions	Net Weight(kg)	1.2
Dimensions	Exterior Dimension(W*D*H)	205X135X215(mm)
Power Adaptor	Input	~100V-240V 50/60Hz
Fower Adaptor	Output	DC 12V 3A

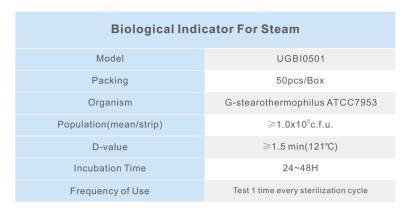
### Biological Indicators





**Parameters** 







Biological Indicator For VH₂O₂			
Model	UGB10502		
Packing	50pcs/Box		
Organism	G-stearothermophilus ATCC7953		
Population(mean/strip)	≥1.0x10°c.f.u.		
D-value	$\geqslant$ 1s (50°C,2.3mg/L VH <sub>2</sub> O <sub>2</sub> )		
Incubation Time	24~48H		
Frequency of Use	Test 1 time every sterilization cycle		



Biological Indicator For EO			
Model	UGBI0503		
Packing	50pcs/Box		
Organism	Bacillus atrophaeus ATCC 9372		
Population(mean/strip)	≥1.0x10°c.f.u.		
D-value	≥2.5 min(54°C,60% RH,600mg/L EO)		
Incubation Time	24~48H		
Frequency of Use	Test 1 time every sterilization cycle		



Biological Indicator For Dry Heat			
Model	UGBI0504		
Packing	40pcs/Box		
Organism	Bacillus atrophaeus ATCC 9372		
Population(mean/strip)	≥1.0x10°c.f.u.		
D-value	≥2 min(160±1°C)		
Incubation Time	24~48H		
Frequency of Use	Test 1 time every sterilization cycle		



Biological Indicator For LTSF		
Model	UGBI0505	
Packing	50pcs/Box	
Organism	G-stearothermophilus ATCC7953	
Population(mean/strip)	≥1.0x10 <sup>6</sup> c.f.u.	
D-value	≥6 min(1±0.01mol/L,60±0.5°C)	
Incubation Time	24~48H	
Frequency of Use	Test 1 time every sterilization cycle	



Biological Indicator For Water Spray		
Model	UGBI0506	
Packing	50pcs/Box	
Organism	Bacillus subtilis ATCC 35021	
Applicable temperature	105~121°C	
Population(mean/strip)	≥1.0x10°c.f.u.	
D-value	≥1.5 min(121°C)	
Incubation Time	24~48H	
Frequency of Use	Test 1 time every sterilization cycle	









B.I. for H <sub>2</sub> O <sub>2</sub> space disinfection			
Model	UGBI0601		
Packing	50pcs/Box		
Organism	G-stearothermophilus ATCC7953		
Population(mean/strip)	≥1.0x10°c.f.u.		
D-value	$\geqslant$ 1.5 min(1500mg/m³ 15~30°C)		
Incubation Time	24~48H		
Frequency of Use	Test 1 time every cycle		
Incubation Time	24~48H		



B.I. for H <sub>2</sub> O <sub>2</sub> space disinfection			
Model	UGB10602		
Packing	50pcs/Box		
Organism	G-stearothermophilus ATCC7953		
Population(mean/strip)	≥1.0x10 <sup>4</sup> c.f.u.		
D-value	$\geqslant$ 1.5 min(1500mg/m <sup>3</sup> 15~30°C)		
Incubation Time	24~48H		
Frequency of Use	Test 1 time every cycle		



Rapid readout B.I. for H <sub>2</sub> O <sub>2</sub> space disinfection			
Model	UGBI0901		
Packing	50pcs/Box		
Organism	G-stearothermophilus ATCC7953		
Population(mean/strip)	≥1.0x10 <sup>6</sup> c.f.u.		
D-value	$\geqslant$ 1.5 min(2000mg/m $^3$ 15~30°C)		
Incubation Time	15~60min		
Frequency of Use	Test 1 time every cycle		







Spore strips For Steam			
Model	UGBS0501		
Packing	200pcs/Pack		
Organism	G-stearothermophilus ATCC7953		
Population(mean/strip)	≥1.0x10⁵c.f.u.		
D-value	≥1.5 min(121°C)		
Incubation Time	24~48H		
Frequency of Use	Test 1 time every sterilization cycle		



Spore strips For VH <sub>2</sub> O <sub>2</sub>			
Model	UGBS0502		
Packing	200pcs/Pack		
Organism	G-stearothermophilus ATCC7953		
Population(mean/strip)	≥1.0x10 <sup>6</sup> c.f.u.		
D-value	$\geqslant$ 1s (50°C,2.3mg/L VH $_2$ O $_2$ )		
Incubation Time	24~48H		
Frequency of Use	Test 1 time every sterilization cycle		



Spore strips For Dry Heat/EO		
Model	UGBS0503	
Packing	200pcs/Pack	
Organism	Bacillus atrophaeus ATCC 9372	
Population(mean/strip)	≥1.0x10°c.f.u.	
D-value	$\geqslant$ 2.5 min(54°C,60% RH,600mg/L EO) $\geqslant$ 2 min(160±1°C)	
Incubation Time	24~48H	
Frequency of Use	Test 1 time every sterilization cycle	





Mini strips For Steam			
Model	UGMS0501		
Packing	200pcs/Pack		
Organism	G-stearothermophilus ATCC7953		
Population(mean/strip)	≥1.0x10⁵c.f.u.		
D-value	≥1.5 min(121°C)		
Incubation Time	24~48H		
Frequency of Use	Test 1 time every sterilization cycle		



Mini strips For VH <sub>2</sub> O <sub>2</sub>				
Model	UGMS0502			
Packing	200pcs/Pack			
Organism	G-stearothermophilus ATCC7953			
Population(mean/strip)	≥1.0x10 <sup>6</sup> c.f.u.			
D-value	$\geqslant$ 1s (50°C,2.3mg/L VH $_2$ O $_2$ )			
Incubation Time	24~48H			
Frequency of Use	Test 1 time every sterilization cycle			



Mini strips For Dry Heat/EO			
Model	UGMS0503		
Packing	200pcs/Pack		
Organism	Bacillus atrophaeus ATCC 9372		
Population(mean/strip)	≥1.0x10 <sup>6</sup> c.f.u.		
D-value	≥2.5 min(54°C,60% RH,600mg/L EO) ≥2 min(160±1°C)		
Incubation Time	24~48H		
Frequency of Use	Test 1 time every sterilization cycle		





Spore strips For H <sub>2</sub> O <sub>2</sub> space disinfection			
Model	UGBS0502B		
Packing	100pcs/Pack		
Organism	G-stearothermophilus ATCC7953		
Population(mean/strip)	≥1.0x10 <sup>e</sup> c.f.u.		
D-value	$\geqslant$ 1.5 min(1500mg/m $^3$ 15~30 $^\circ$ C)		
Incubation Time	24~48H		
Frequency of Use	Test 1 time every sterilization cycle		



Spore strips For H <sub>2</sub> O <sub>2</sub> space disinfection			
Model	UGBS0502C		
Packing	100pcs/Pack		
Organism	G-stearothermophilus ATCC7953		
Population(mean/strip)	≥1.0x10⁴c.f.u.		
D-value	$\geqslant$ 1.5 min(1500mg/m <sup>3</sup> 15~30°C)		
Incubation Time	24~48H		
Frequency of Use	Test 1 time every sterilization cycle		



Spore strips For H <sub>2</sub> O <sub>2</sub> space disinfection			
Model	UGBS0502E		
Packing	100pcs/Pack		
Organism	Bacillus atrophaeus ATCC 9372		
Population(mean/strip)	≥1.0x10°c.f.u.		
D-value	$\geqslant$ 1.5 min(1500mg/m³ 15~30°C)		
Incubation Time	24~48H		
Frequency of Use	Test 1 time every sterilization cycle		







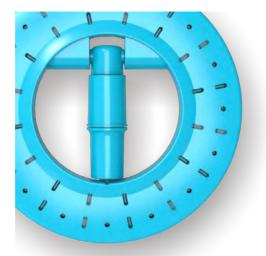
Culture Medium For Steam/VH <sub>2</sub> O <sub>2</sub> /LTSF			
Model	UGIM0501		
Packing	40pcs/Box		
Initial color	Purple		
Final color(positive)	Yellow		
Medium volume	2ml		
Incubation Time	24~48H		
Frequency of Use	Test 1 time every sterilization cycle		



Culture Medium For Dry Heat/EO			
Model	UGIM0503		
Packing	40pcs/Box		
Initial color	Green		
Final color(positive)	Yellow		
Medium volume	2ml		
Incubation Time	24~48H		
Frequency of Use	Test 1 time every sterilization cycle		

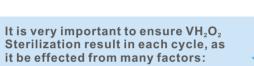
### **Process Challenge Device Series**





### **Process Challenge Device** for VH<sub>2</sub>O<sub>2</sub> Sterilizer UGPD-02

**Advanced Monitoring/Validation Tools** 

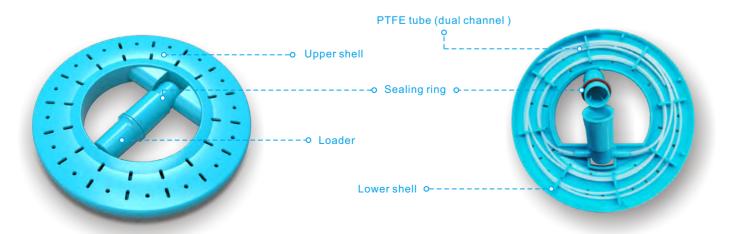


- Concentration of Agent(Hydrogen Peroxide)
- Vaporization Quality
- Injection Volume
- Temperature of Chamber
- Cleaning/dryness of loaded instruments
- Packing method
- Loading method
- Etc.





The inner diameter of the PTFE tube is 1mm and the length is 2 meters





### Rapidly and Accurately

• After the PCD can be used with our rapid BI, the result can be obtained within 20 minutes. The result is accurate and meets international standards.

### Very easy to load

· It is very convenient to load and take out BI. Routine training is carried out in the reader to increase the turnover rate.

#### **Ensure sterilization results**

· Completely simulate the structure of lumen instruments to ensure the sterilization results of lumen instruments.

#### Safe and reliable

- · Both the compatibility of materials and the sealing are also very good, which ensures the high challenge resistance and stability of PCD.
- Frequency of Biological Testing should be at least once per day or in accordance with your policy
- Priority of sterilization monitoring Domestic laws ISO standard Manufacturer's instructions

#### Naked BI & CI(Chemical Indicator) can not check the sterilization results for lumen instruments:

- Naked Bl is only to check instruments without lumen
- Class 1 Cl is only to ensure the sterilizer injected Agent (Hydrogen Peroxide) into the chamber normally
- Normal PCD is to ensure the sterilization results, but needs the incubation time

#### Loading of BI to be sterilized



### CI for VH,O, PCD



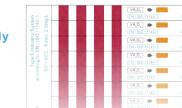
## **Used(qualified)**



### **Used(unqualified)**



### Type 5 **Rapidly and Accurately** Safe and Economy









# Process Challenge Device for Steam Sterilizer

UGPD-01

**Advanced Monitoring/Validation Tools** 

It is very important to ensure Steam Sterilization result in each cycle, as it be effected from many factors:

- Saturation of steam
- Steam uniformity
- Temperature of chamber
- Cleaning/dryness of loaded instruments
- Packing method
- Loading method
- Etc.

### - Advantages

### Rapidly and Accurately

• After the PCD can be used with our rapid BI, the result can be obtained within 20 minutes, The result is accurate and meets international standards.

### **Ensure sterilization results**

• Completely simulate the structure of instrument box to ensure the sterilization results of metal instrument box.

### Safe and reliable

• Both the compatibility of materials and the sealing are also very good, which ensures the high challenge resistance and stability of PCD.

### Very easy to load

• It is very convenient to load and take out BI. Routine training is carried out in the reader to increase the turnover rate.

