AEOLUS™ IS-ACMA/IS-AMA and IS-A5CMA/IS-A5MA Compact CO2 Incubator Shaker



NEW! 50mm Orbit Available!

CRYSTAL

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AEOLUS™ IS-ACMA/IS-AMA AND IS-A5CMA/IS-A5MA COMPACT CO2 INCUBATOR SHAKER

The CO2 Incubator Shaker features Temperature, Shaking, CO2 Concentration, and Humidity controls. Its' stackable design helps maximize floor space, with the capability to stack up to three units high.



PRODUCT FEATURES

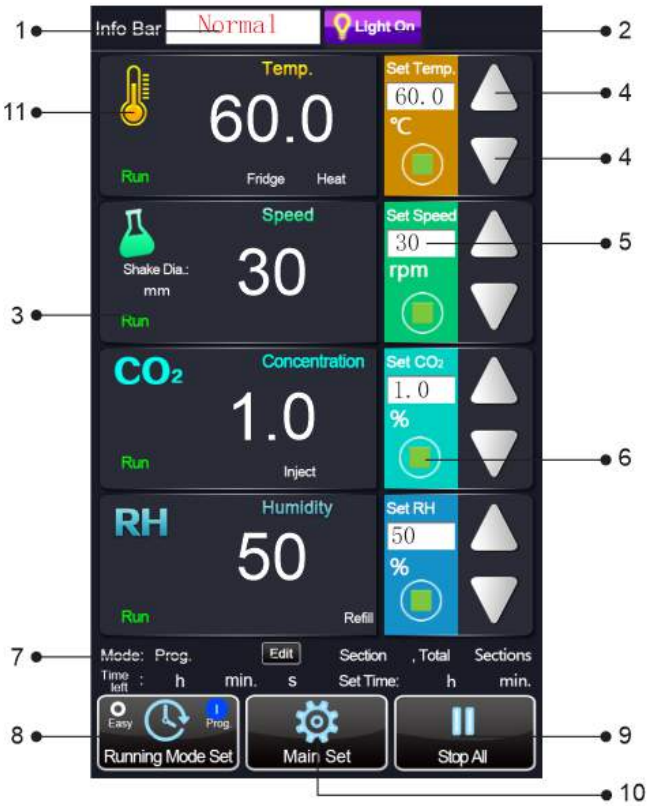
- 7" High-Res Color Touch Screen with intuitive graphic interface
- Innovative chamber design features smooth rounded internal corners for easy cleaning
- Infra-Red(IR) CO2 sensor for precise and reliable CO2 detection
- Optional WiFi and RS485 control
- 2 Sets of UV lights for easy sterilization
- Audible and visual alarms
- Mirror finish, pharmaceutical grade stainless steel chamber
- Stackable design up to 3 units.
- 25mm and 50mm orbit models available

Innovative Design

- Three axis eccentric balance system provides stable and reliable shaking
- Terminal feedback system ensures precise shaking speed
- Brushless DC motor is highly efficient, quiet, durable, and produces negligible heat that does not affect the chamber temperature
- Combination of Proportional-Integral-Derivative control and Fuzzy control for temperature ensure temperature accuracy within ±0.1°C
- Program mode allows user to set up to 12 segments of varying temperature and speed
- Highly efficient inverter compressor refrigeration allows for temperatures as low as 18°C below room temperature with low energy consumption (minimum temperature of 4°C)
- Infrared CO2 sensor provides accurate and reliable CO2 detection (IS-ACMA only)
- Intuitive 7” capacitive touchscreen makes many functions, such as setting alarm parameters, easy to complete
- Slide rail platform makes it easy to load and unload fixtures
- Noise reduction design keeps the instrument noise level to 55 dB
- Wifi monitoring allows the user to stay in touch with the instrument even outside of the lab

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CAPACITIVE TOUCH SCREEN DISPLAY





Main Interface:

1. Displays the current instrument status.
2. Light button: Press to turn the light on or off.
3. Displays the current function's running status, orbit diameter (for speed), and any alarms.
4. Plus and Minus buttons: Adjusts the corresponding function's value.
5. Displays the set value and allows user to manually input the set value.
6. Run/Stop button: Runs and stops function.
7. Edit button for programmable mode: Sets up to 12 running segments of varying temperatures and speed.
8. Running mode button: Switches between "Easy" and "Program Control" mode.
9. Run/Stop all button: Runs and stops all functions.
10. Main Settings button: Enters settings page (image below), which features specific settings for the user to edit.
11. Function icon buttons: Graphically displays the real-time function data.

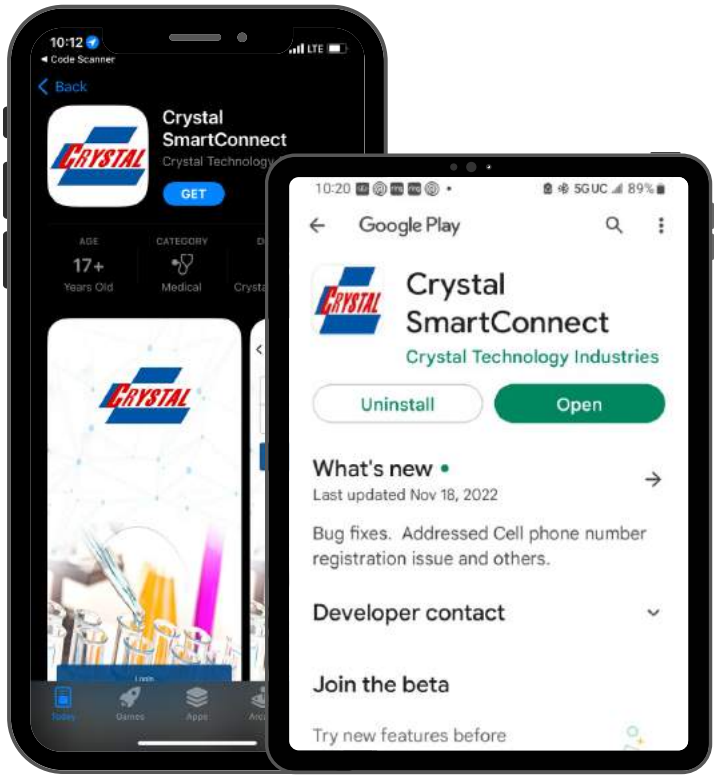
Control Features

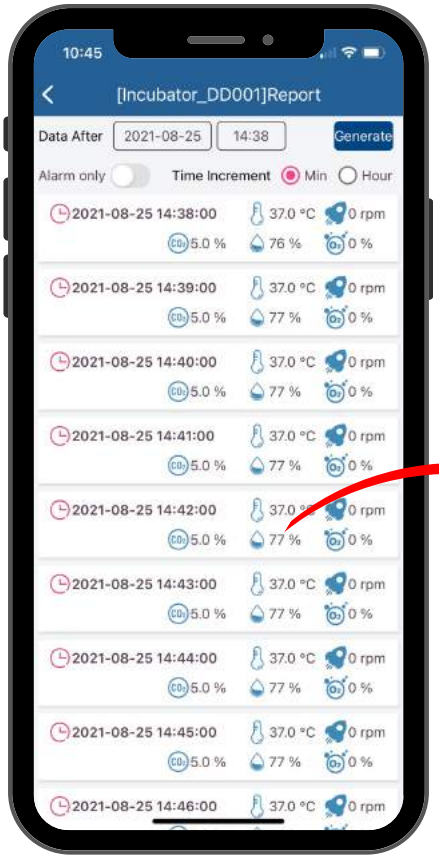
- Powerful Data storage: Data is stored for more than 2 years. Recorded in 1 minute intervals.
- Real-time data view: On the display, operator can view the running data from latest 7 days.
- Data export: Easily export more than 2 years of parameter data via USB.
- Remote WiFi monitoring accessory and smart phone app enable remote monitoring and control.
- Various Alarms: Alarms can be armed to activate when parameter values deviate outside of users' set bounds.
- Alarm recording: Alarm information is stored and viewable.
- Easy Calibration: Calibrating functions only require inputting the difference between set and actual values.

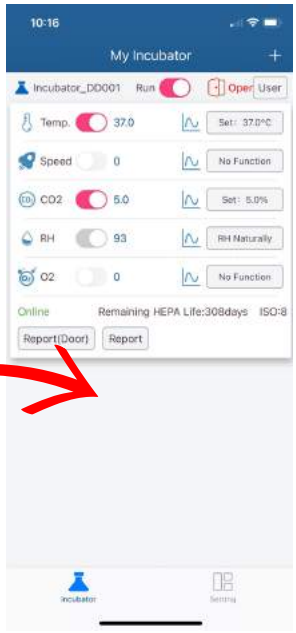
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REMOTE MONITORING APP

Crystal Industries' Remote Monitoring accessory and app gives customers the ability to control their Incubator right from their phone or tablet via Wifi Connection. Features of the incubator app include the ability to set and change the incubator's parameters (including temperature and CO2 concentration). Text notification are sent when an alarm is activated. This unique app makes it possible to stay conveniently connected with CTI incubator and ongoing projects, whether you are in the lab or not.









OVERVIEW

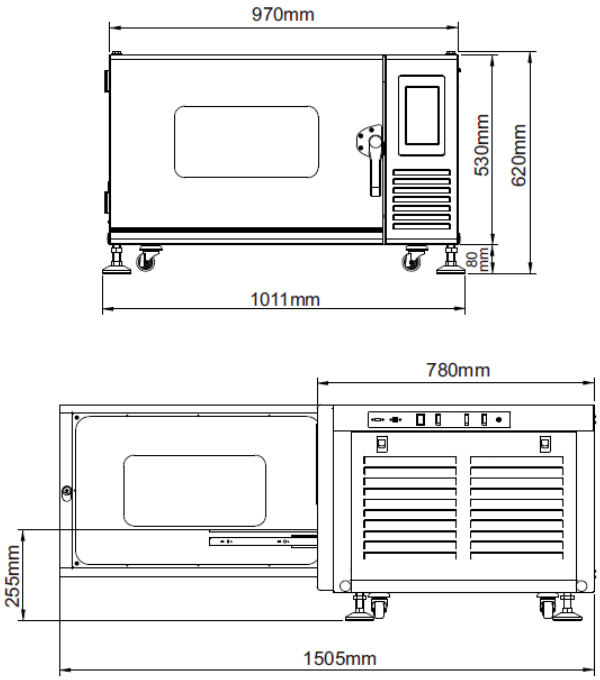


- **High Resolution 7-inch Color Touch Screen**: Modular display presents instrument status and function values in a clear and concise manner.
- **Capacitive Touch Screen**: The capacitive screen is more responsive and durable than a resistance screen as there is no reaction delay when the screen is pressed.
- **Screen Lock**: The display screen has an automatic lock screen with password protection function. This prevents any accidental or unauthorized alterations of the programmed operations or settings.
- **Pull Out Rail Platform**: Operators can easily pull the platform out to load or unload fixtures. Only one locking handle in the middle of the platform makes the process fast and convenient.
- **Excellent Temperature Control Performance**: When the incubator is at a stable temperature of 37°C, the uniformity is ±0.3°C.
- **Strong Cooling Capacity**: The incubator chamber can be cooled to 18°C below the ambient temperature (Lowest temp is 4°C).
- **Inverter Compressor**: Makes cooling a noiseless, durable, and highly efficient process while also saving energy.
- **Three Units Can Be Stacked**: This product can be purchased as a single, double, or triple stack.
- **Bi-Directional Ultraviolet Sterilization**: The chamber is equipped with two sets of UV sterilization light components to enhance the germicidal irradiation effect and reach all areas of the chamber.
- **Ultra Quiet Design**: The noise level is less than 55dB when incubator is running and cooling (loudest process), providing a quiet environment for the operator.
- **Slow Acceleration and Deceleration**: Shaking function starts and stops slowly to prevent large shear forces on the bacteria or cells.
- **High Pressure Water Rinse**: Both the platform and chamber feature an integrated draining system that is fast and efficient.
- **Efficient and Durable Insulation**: Foamed Polyurethane insulation provides advanced thermal insulation. The material is also air-tight, waterproof, lightweight, shockproof, electrically insulated, heat resistant, cold resistant, and solvent resistant.

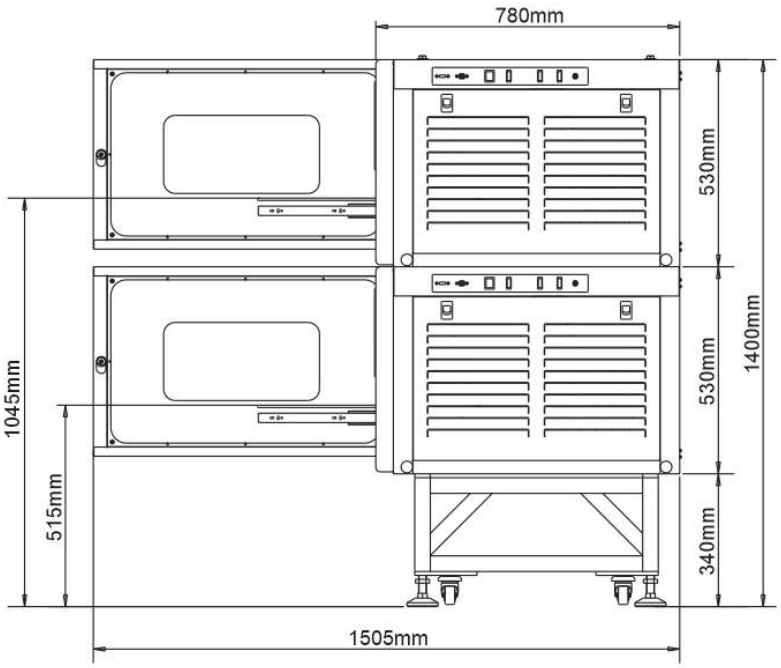
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PRODUCT DIMENSIONS

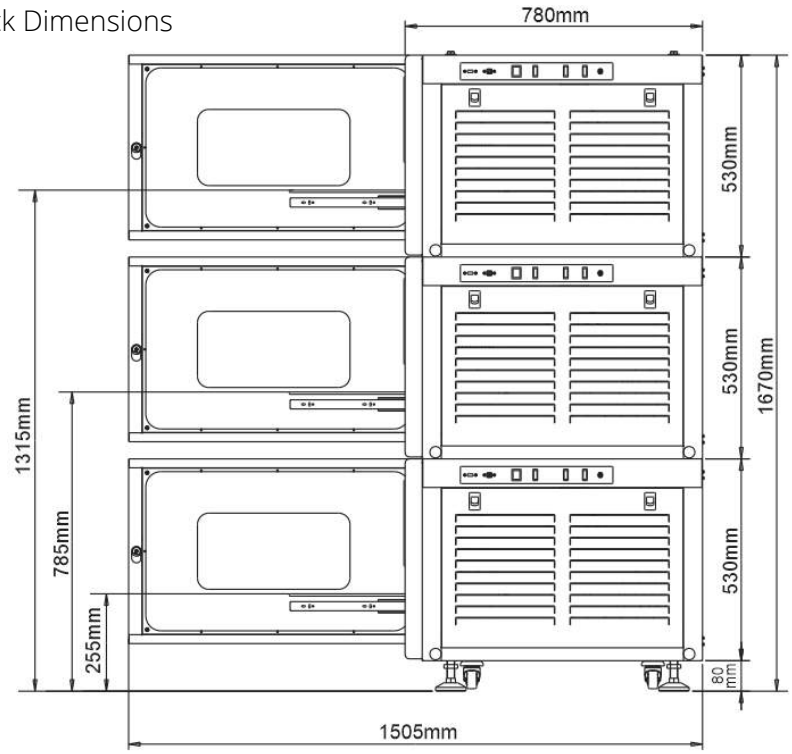
Single Unit Dimensions



Double Stack Dimensions with IS-A93 Stand



Triple Stack Dimensions





AEOLUS™ IS-ACMA/IS-AMA AND IS-A5CMA/IS-A5MA COMPACT CO2 INCUBATOR SHAKER

PRODUCT SPECIFICATIONS

Model	IS-AMA	IS-A5MA	IS-ACMA	IS-A5CMA
Product Name	AEOLUS™ Compact Magnetic Drive Incubator Shaker		AEOLUS™ Compact Magnetic Drive CO2 Incubator Incubator Shaker	
Platform Dimensions WxD	550 x 470 mm (21.65 x 18.50 in)			
Max Capacity	Clamp capacity: 50mlx72 / 100mlx30 / 150mlx30 / 200mlx30 / 250mlx30 / 500mlx16 / 1000mlx12 / 2000mlx6 / 5000ml(Thomson)x4 Sticky Mat: 50mlx72 / 100mlx53 / 150mlx41 / 200mlx32 / 250mlx30 / 500mlx16 / 1000mlx12 / 5000ml(Thomson)x4			
Capacity	190 L			
Max Load	10 kg (22.05 lb)			
Temp. Range	Room Temp. Minus 18°C~60°C (Lowest Temp is 4°C)			
Temp Accuracy	±0.1 °C			
Temp. Uniformity	± 0.3°C (@37°C)			
Temp Recover Time After Door is Opened for 30s	≤6min (@37°C)			
Speed	0(stop), 30~ 300 rpm			
Speed Accuracy	±1rpm			
Speed Drive Motor	Beltless DC Brushless Motor			
Orbit Diameter	⌀25mm (⌀1.02in)	⌀50mm (⌀2in)	⌀25mm (⌀1.02in)	⌀50mm (⌀2in)
CO2 Sensor	N/A		Infrared	
CO2 Control Range	N/A		0~20%	
CO2 Control Accuracy	N/A		±0.1%	
CO2 Recover Time After Door is Opened for 30s	N/A		≤6min (@5%)	
Relative Humidity Type	Active		Active	
Max Humidity	90%		90%	
Programmable Segments	12 Segments			
Timer	0~999h59min			
Illuminiation	LED Lamps on Left and Right Walls			
Disinfection	UV Lamps on Left and Right Walls			
Door Opening Direction	Leftward			
Internal Dimensions WxDxH	654 x 605 x 474 mm (25.75 x 23.82 x 18.66 in)			
Outside Dimensions WxDxH	970 x 780 x 530(+80 with feet) mm (38.19 x 30.71 x 20.87(+3.15 with feet) in)			
Internal Working Height	300mm (11.8in)			
Net Weight	170 kg (375 lb)			
Display	7" Color Capacitive Touch Screen			
Parameter Protection	Password Protected			
Data Stored	Time, Temperature, Speed, Instrument Status		Time, Temperature, Speed, CO2 Concentration, Humidity, Instrument Status	
Data Storage Interval	1 Minute			
Screen Data Display	Displays Most Recent 7 Days of Data			
USB Data Export	Most Recent 912 Days of Data			
Automatic Defrost	Yes			
Noise Level	≤55dB (When Compressor is Running)			
Auto-Recovery after Power Interuption	Yes			
Power when Heating	≤450 W			
Power when Cooling	≤180W			
Power supply	AC 110V±11V, 60Hz			
Power	≤630W		≤630W	
Mobile Monitoring and Control by WiFi	Optional through IS-A64W Accessory and App			
Warranty	2 Years Parts and Service			
Certification	CE			

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PRODUCT ACCESSORIES



Tube Rack



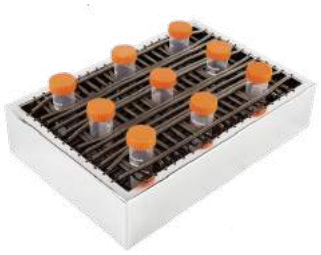
Adjustable Tube Rack



Multi Micro-Plate holder



Flask Clamps



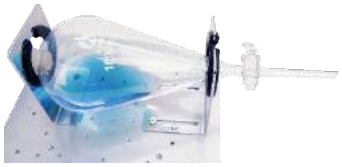
Mini Universal Spring Platform



96-Well Micro-Plate Holder



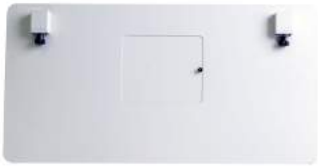
Infusion Bottle Clamp



Fixture for Separating Funnel



Sticky Pad



Visor cover



CO2 Cylinder Pressure Regulator



Stand for AEOLUS Compact Incubator Shakers



Water Carboy



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ACCESSORY SPECIFICATIONS

Item Number	Item Type	Specifications	Max Capacity
IS-A50	Flask Clamp	Holds 25 mL Flask	72
IS-A1		Holds 50 mL Flask	30
IS-A2		Holds 100/125 mL Flask	30
IS-A3		Holds 150 mL Flask	30
IS-A4		Holds 200 mL Flask	30
IS-A5		Holds 250 mL Flask	30
IS-A6		Holds 500 mL Flask	16
IS-A7		Holds 1000 mL Flask	12
IS-A8		Holds 2000 mL Flask	6
IS-A10		Holds 5000 mL Thomson Flask	4
IS-A11	Tube Rack	Holds 40 Tubes x ø14mm	6
IS-A12		Holds 40 Tubes x ø16mm	6
IS-A23		Holds 40 Tubes x ø18mm	6
IS-A24		Holds 27 Tubes x ø22mm	6
IS-A42		Holds 21 Tubes x ø30mm	6
IS-A20	Adjustable Tube Rack	Holds 40 Tubes x ø14mm	6
IS-A21		Holds 40 Tubes x ø16mm	6
IS-A30		Holds 40 Tubes x ø18mm	6
IS-A31		Holds 27 Tubes x ø22mm	6
IS-A32		Holds 21 Tubes x ø30mm	6
IS-A37		Holds 24 Tubes x ø30mm	3
IS-A33	Infusion Bottle Clamp	Holds 500 mL Infusion Bottle	21
IS-A34		Holds 1000 mL Infusion Bottle	13
IS-A13	Microplate Holder	96-Well Microplate Holder	18
IS-A175	Multi Micro-Plate Holder	Holds 6 Microplates	18
IS-A35	Fixture for Separating Funnel	Holds Separating Funnels of ≥500mL	3
IS-A47	Sticky Mat	140 x 140mm	12
IS-A122	Sticky Mat	280 x 280mm	4
IS-A96	Spring Frame	550 x 470 x 80 mm	1
IS-A27		350 x 240 x 80 mm	4
IS-A22		450 x 400 x 80 mm	1
IS-A14		428 x 295 x 80 mm	2
IS-A90	Water Carboy	For IS-ACMA humidity function Holds 15L 1 can serve up to 3 incubator shakers	1
IS-A93	Stand	Adds 340 mm (13.39in) of height **Recommended for use with single and double stacks**	1
IS-A95	Visor Cover	Blocks ambient light from entering chamber	1
IS-A64W	Remote Monitoring and Control	Connects each unit to users' phones via a wifi or wired internet connection and an app available on the Apple Store and Google Play	1
CIA25	CO2 Cylinder Pressure Regulator	Max Inlet Pressure: 3000 psi Max Outlet Pressure: 60 psi	1(up to 2 Units)

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For over 25 years Crystal Technology and Industries has been driven to deliver exceptional value to the scientific marketplace by developing innovative equipment and Cryo Storage Solutions for today's scientist.