



**GENEVA SCIENTIFIC**  
LAB EQUIPMENT SOLUTIONS

**ARABIDOPSIS CHAMBER - AR-41L3**



Model	AR-41L3
Exterior Dimensions (WxDxH)	41" x 33.6" x 77.2"
Temp. Range (w/ lights on)	7-44C +/- 0.5C
Interior Space	37.2 cu.ft.
Total Shelving Floor Area	20.4 sq.ft.
Maximum Growing Height	14.5"
Light Intensity (6" from lamps)	405 micromoles/m2/sec
Number of Tiers	3

**Applications**

- \*This chamber is frequently used for Arabidopsis thaliana, tobacco and other low light plant growth
- \*Many other applications exist for this product

**Percival's IntellusUltra Controller**

- The IntellusUltra C8 is the standard control system on all Percival Scientific chambers.
- \*23 output channels for the control of lighting, logic events, convenience outlets, etc
- \*Onboard diagnostics, ambient temperature monitoring and power failure event logging for improved troubleshooting
- \*The added security of an independent temperature alarm
- \*Dual experiment protection with primary limit and independent secondary limit

**IntellusUltra control graphical user interface**

Percival Scientific plant growth chambers now come standard with Touchscreen control. This intuitive control system features an improved user interface with a larger, higher resolution screen that displays more setting and data, including new graphs (cont.)

**IntellusUltra control (cont.)**

- and charts. With more sensitive touchscreen controls, the system is easier to program than ever.
- \*10.1" IPS display
- \*1280 x 800 resolution
- \*10-point simultaneous multi-touch
- \*Alarm notifications

**SciWhite LED Lighting System**

- \*Three tiers of lighted shelving lit by SciWhite LEDs
- \*Intensity programmable up to 405  $\mu\text{moles/m}^2/\text{s}$  of light irradiance measured @ 6" from LEDs
- \*Programming and control of the lighting is done via IntellusUltra real time controller
- \*Dimmable between 10-100% output

**Airflow/Circulation**

- \*Air circulation inside chamber is from a specifically designed adjustable air diffuser (conditioned air travels along the entire back wall, over the shelves and returns to the ceiling fans through an opening between the light fixtures and the doors)

## ARABIDOPSIS CHAMBER - AR-41L3

### Cabinet Construction

- \*Interior constructed of 26-gauge galvanized steel
- \*Interior floor constructed of 24-gauge polished stainless steel
- \*Exterior constructed of 24-gauge Galvannealed extra-smooth steel
- \*NSF-compliant seam design
- \*Overall wall thickness is 2" (5.1 cm)
- \*Integrated floor drain
- \*Contains casters assembly and adjustable leveling legs
- \*One 1.25" access port with air-tight plug
- \*Highly durable and reflective coating

### Insulation

- \*Woodless construction using 2" thick foamed-in-place non-CFC Urethane insulation with 97% closed cell-structure density of 2.2 lbs/ft<sup>3</sup>

### Door

- \*One door opening of 36.8" x 57.5" providing full access to chamber interior (magnetic gasket provides a tight seal to door frame)
- \*Lift-off hinge design allows for the simple removal of door

### Interior Space

- \*37.2 ft<sup>3</sup> with shelf area of 20.4 ft<sup>2</sup> provided on two tiers

### Shelving

- \*Three tiers of white epoxu coated steel wire shelving (each shelf is 27"D x 36.3"W)
- \*Each shelf is supported by shelf clips allowing ½" vertical adjustments
- \*Maximum growing height is 14.5" (36.8 cm)

### Convenience Receptacles

- \*Two 120/1/60 convenience receptacles provided inside chamber

### Electrical Requirements

- \*Consult Geneva Scientific for electrical requirements and amperage draw.

### Refrigeration

- \*Top mounted air-cooled condensing unit with hot gas bypass system for continuous compressor operation, extended life and tight temperature control. Continuous running condensing unit ensures precise temperature control by alternately cycling refrigerant and hot gas to coil; also prolongs compressor life, and eliminates risk of ice build up in coil.
- \*Extended stem solenoid valves for quiet and long life operation
- \*Ceiling mounted evaporator coil incorporates twin air circulation fans in aluminum housing (heat rejection to ambient [standard chamber] = 3,645 BTU/hr.)

### Temperature Range

- \*7°-44°C (±0.5°C) with lights on and 2°-44°C (±0.5°C) lights off

### Temperature Safety Limit Controls

- \*Experiment Protection: Adjustable high and low temperature controls, audible alarms, and visual indicators provided
- \*Controls shut down all power to chamber, activating alarms (when the temperature returns to the normal range the system will automatically reset)

### Options

- \*Additive Humidity Control with Sensor
- \*Additive CO<sub>2</sub> control
- \*CO<sub>2</sub> removal system
- \*Self-contained water-cooled condensing unit
- \*Dry alarm contacts
- \*Closed loop dimmable lighting with PAR light sensor
- \*Open loop dimmable lighting per tier
- \*Extended temperature ranges available



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