



GENEVA SCIENTIFIC
LAB EQUIPMENT SOLUTIONS

ARABIDOPSIS CHAMBER - AR-41L2



Model	AR-41L2
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	13.6 sq.ft.
Maximum Growing Height	22.6"
Light Intensity (6" from lamps)	405 micromoles/m2/sec
Number of Tiers	2

Applications

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

Percival's IntellusUltra Controller

The IntellusUltra control system was purpose-built for controlled environments and is standard on all Percival chambers.

- *Robust and reliable, industrial-grade intergrated hardware design
- *Highly flexible architecture facilitates configuration, expansion and customization
- *Precise, simultaneous control of up to 7 environmental parameters
- *Industry-leading experiment protection and system diagnostics

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 settings (cont)

IntellusUltra control (cont)

- and data, including new graphs and charts. With more sensitive touch-screen 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

- *Two tiers of lighted shelving lit by SciWhite LEDs
- *Intensity programmable up to 405 micromoles/m2/sec of light irradiance measured at 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)

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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/cu.ft.

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 simple removal of door

Interior Space

- *37.2 cu.ft. with work area of 13.6 sq.ft. provided on two tiers

Shelving

- Two tiers of white epoxy coated steel wire shelving (each shelf is 36.3"W x 27"D [92.2 cm x 68.6 cm])
- *Each shelf is supported by shelf clips allowing ½" vertical adjustments
- *Maximum growing height is 22.6" (57.5 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 coils incorporate twin air circulation fans in aluminum housing (heat rejection to ambient with standard chamber = 3,335 BTU/hr)

Temperature Range

- *7-44C (+/- 0.5C) with lights on and 2-44C (+/- 0.5C) with 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
- *IntellusUltra Connect
- *Additive CO2 control
- *CO2 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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