



# GENEVA SCIENTIFIC

LAB EQUIPMENT SOLUTIONS

## SEED GERMINATION CHAMBER - GR-41L



Model	GR-41L
Exterior Dimensions (WxDxH)	41" x 33.6" x 77.2"
Temp. Range (w/ lights on)	10-44C +/- 0.5C
Interior Space	37.2 cu.ft.
Total Shelving Floor Area	91.8 sq.ft.
Maximum Growing Height	2.6"
Light Intensity (6" from lamps)	50 micromoles/m <sup>2</sup> /sec
Number of Tiers	15

### Applications

- \*Designed exclusively for seed germination and development
- \*Many other applications exist for this product

### Percival's IntellusUltra Controller

\*Percival Scientific has built a reputation of providing flexible, customized options for research scientists around the world. We have taken the philosophy to the next level with our improved IntellusUltra Controller. Now choose from the levels of functionality that meet your needs.

### Lighting System

- \*Fluorescent lamps vertically mounted (three per side) on each side of shelf
- \*Intensity programmable up to 50 micromoles/m<sup>2</sup>/sec of light irradiance measured at 6" from lamps on 2 on/off light events
- \*Programming and control of the lighting is done via IntellusUltra real time controller

### Airflow/Circulation

\*Operating conditions within the growth area to be maintained by conditioned air horizontal through the chamber and back to air conditioning unit on ceiling which contains a refrigeration coil, expansion device, condensate pan and recirculation fans

### Cabinet Construction

- \*Interior constructed of 22-gauge electro-zinc plated steel
- \*Exterior constructed of 18-gauge exterior electro-zinc plated steel
- \*Welded seams and joints on outer and inner shells
- \*Inner shell supported by non-compressing/non-thermal conducting material locking inner liner in place without a metal-to-metal bond to outer case
- \*Chamber is completely self-contained
- \*Overall wall thickness is 2"
- \*Two 1 1/4" diameter access ports on R.H. wall
- \*Chamber floor equipped with floor drain and hose assembly
- \*Contains caster assembly and adjustable leveling legs to compensate for floor unevenness in the lab

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### Insulation

\*Woodless construction using CFC free insulation (overall wall thickness is 2", ample insulation for maintenance of stated temperature range)

### 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)

### Interior Space

\*37.2 cu.ft. with work area of 91.8 sq.ft. provided on fifteen shelves

### Shelving

\*Fifteen tiers of white epoxy coated steel wire shelving (each shelf is 27"D x 32.6"W)  
\*Shelves side in and out easily on stainless steel rail assemblies  
\*Clearance between shelves is 2.6"

### Finish

\*Interior and exterior painted with high reflective, environmentally friendly, high temperature baked white powder coating

### Refrigeration

\*Self-contained air-cooled condensing unit with hot gas bypass system for continuous compressor operation, extended life and close temperature control (this continuous running condensing unit ensures precise temperature control by alternating cycling refrigerant and hot gas to coil; this also prolongs life of compressor, and eliminates risk of ice build up in coil)  
\*Top mounted refrigeration system allows easy access for maintenance (e.g. cleaning)  
\*As heat is rejected, it rises and is dissipated into room without having any effect on inside temperature of cabinet  
\*Solenoid valves have extended stem 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: 3500 BTU/hr)

### Temperature Range

\*10-44C (+/- 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)

### Convenience Receptacles

\*Two 115/1/60 convenience receptacles provided inside chamber

### Electrical Requirements

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

### Options

\*Additive Humidity Control with Sensor  
\*Dehumidifier with Sensor  
\*IntellusUltra Connect  
\*Android-Based Touch Screen  
\*CO2 Enrichment Package  
\*Self-Contained Water-Cooled Condensing Unit  
\*Dry Alarm Contacts  
\*Dimmable Lighting  
\*LED Lighting in Lieu of Fluorescent Lamps



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