PLANT GROWTH CHAMBER
IG-2KPGC

TOLL FREE NO.
1800-572-0603

ABOUT THE COMPANY

iGene Labserve Pvt. Ltd. is gaining recognition by offering resilient, innovative solutions in laboratory instrumentation across healthcare, genomics, drug discovery, biopharma, and food & beverage sectors. We strive to enhance lab efficacy and reduce challenges through advanced technologies and a diverse product portfolio tailored to our customers' needs.

PRODUCT OVERVIEW:

The Plant Growth Chamber is designed to provide a precisely controlled environment for plant cultivation, research, and experimentation. Equipped with advanced temperature, humidity, and lighting control, it ensures optimal growth conditions for various plant species.
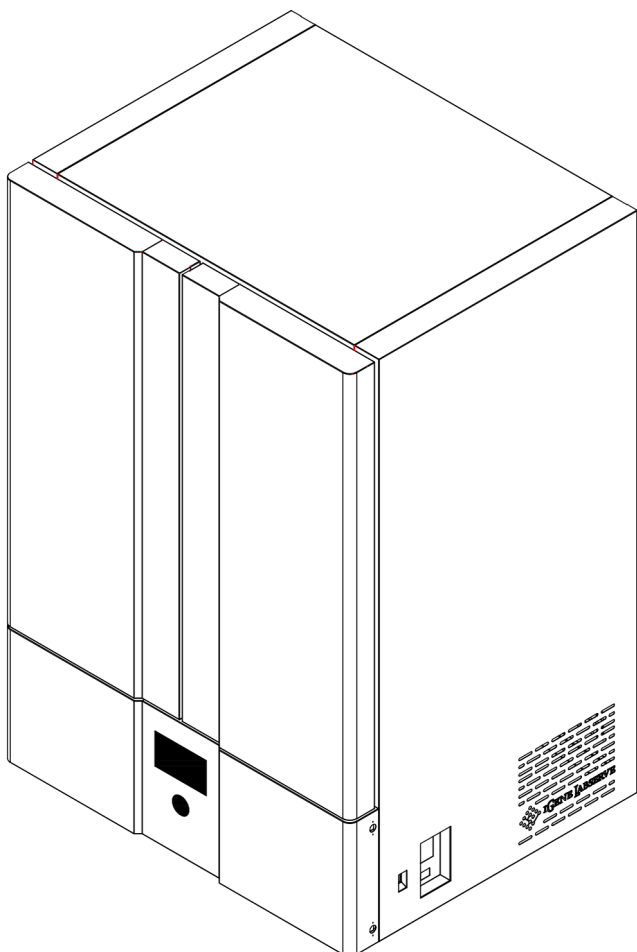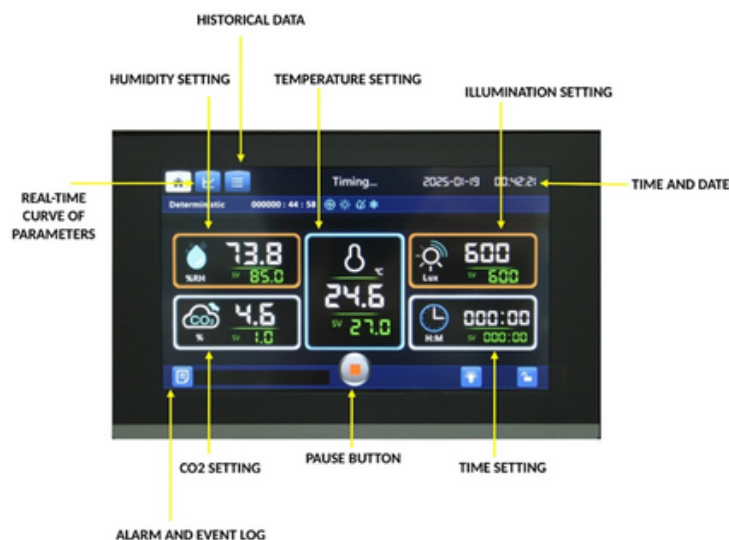
KEY FEATURES:

- **Precise Climate Control:** Maintains stable temperature and humidity for optimal plant growth.
- **Dimmable LED Lighting:** Adjustable intensity with a broad-spectrum design for enhanced plant development.
- **Flexible Shelving System:**
  - Three removable shelves: Maximum plant height of adjustable 14 -20 inches per tier.
  - One removable shelf: Maximum plant height of 45 inches.
- **Efficient Cooling & Heating:** Air-cooled system with a hot gas bypass for stable operation.
- **Humidity Control:** Ultrasonic humidification with an accuracy of ±3% RH.
- **User-Friendly Controls:** Digital controller with programmable temperature, humidity, and light cycles.
- **Structural Integrity:** Stainless steel shelving, CFC-free polystyrene insulation, and double doors with magnetic gaskets.
- **Enhanced Safety:** Equipped with alarms and automatic reset functions for protection against temperature deviations.

TECHNICAL SPECIFICATIONS

MODEL	IG-2KPGC
Plant Growth Area	1.2 m² per shelf
Plant Growth Height	3 shelves: Adjustable 14 - 20 inches per tier 1 shelf: 45 inches
Temperature Range	+4°C to +40°C (lights off) +10°C to +40°C (lights on)
Temperature Expansion (with Special Setting)	Expandable from 4°C to 50°C
Temperature Precision	±0.5°C
Cooling System	Air-cooled system
Heating System	Hot gas bypass
Humidity Range	50 – 85% with ultrasonic humidification , Humidity uniformity: ±3%
Humidity Accuracy	±3% RH
Lighting Source	Dimmable LED
Light Intensity	Up to 350 µmol/m²/s
Light Spectrum	Broad-based spectrum for optimal plant growth
Structural Materials	Stainless steel shelving & CFC-free polystyrene insulation
Doors	Double doors with magnetic gaskets & light-tight seals
Power Supply	220V Single phase, with a suitable voltage stabilizer
External Dimensions (W x D x H)	1840 x 1046 x 2370 mm
Internal Work Area	1650 x 762 x 1650 mm
Chamber Volume	2000 L capacity
Safety Features	Over-temperature, humidity and illumination intensity alarms & automatic reset functions
Optional Accessories	• Controllable CO_2 port with PPM sensor • Shaking assembly

CONTROLLER INFORMATION

The Plant Growth Chamber is equipped with an advanced digital touchscreen controller for precise monitoring and control of critical environmental parameters.

KEY CONTROLLER FEATURES

- **User-Friendly Touchscreen Interface:** Intuitive display for easy operation.
- **Temperature Setting:** Allows precise control and monitoring of chamber temperature.
- **Humidity Setting:** Adjustable humidity levels for optimal plant growth conditions.
- **Illumination Setting:** Customizable light intensity with dimmable LED options.
- **CO₂ Setting:** Enables CO_2 concentration adjustments for plant research applications.
- **Real-Time Parameter Curve:** Continuous tracking of temperature, humidity, and lighting variations.
- **Historical Data Access:** Stores past environmental conditions for analysis.
- **Time & Date Display:** Provides accurate system timestamps.
- **Alarm & Event Log:** Alerts for deviations and system diagnostics.
- **Pause Button:** Allows temporary suspension of operations when needed.
- **Programmable Time Setting:** Enables scheduled operation cycles.
- **Graphical Visualization:** Provides real-time and historical data in graphical format for easy monitoring and analysis.
- **Security:** Multi-level password protection ensures controlled access for users and technicians.
- **Advanced Programming**: Allows internal programming to simulate natural conditions, including temperature, light control, and humidity, as per user requirements.

CONNECT
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