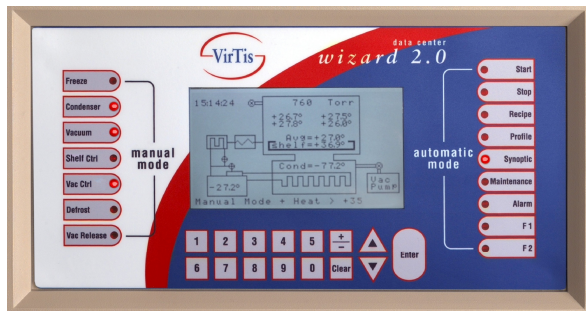# VirTis Wizard 2.0
Lyophilizer Controller

The Wizard 2.0 controller is designed to meet the lyophilization requirements of a broad range of end users. The control system utilizes a PICBASIC software program, custom hardware package and an embedded microprocessor system to provide full process automation, including complete recipe management and alarming. In many cases, the Wizard 2.0 controller can serve as a drop-in replacement for outdated controllers.

Key Features
- Full numeric keyboard and large, easy-to-read backlit liquid crystal display.
- Graphical synoptic display with real-time system status.
- Programming of up to 16 custom recipes.
- Full system alarming.
- Manual and automatic modes.
- Power outage protection including product recovery routines.
- Optional line printer.

System Capabilities
- Up to eight (8) product temperature-monitoring probes.
- Up to two (2) Varian vacuum gauges.
- Time, temperature and pressure control for each step of the Primary and Secondary Drying phases.
- Freeze-dry cycle profile with progressive bar graph.
- Door preseal routine.
- Cascade refrigeration handling with interstage control.
- Time and temperature control of all Thermal Treatment (annealing) steps.
- External alarm contacts (optional).
- Log of recent alarms with date and time stamp.

Optional Workstation Features
- Exceptionally user-friendly recipe manager.
- Complete cycle data logging capability with graphical display of recorded data (historical data trending).
- Recipes and cycle data printing capability (without optional line printer).
- 500 GB Hard Disk Drive.

Workstation Minimum Requirements
- PC with 500 MHz processor.
- Microsoft Windows XP*.
- VGA display (600 x 800 minimum).
- Serial port (standard DB9 RS-232 port preferred).
- Hard drive with 500 MB free space.
- CD-ROM drive.
- USB printer.

Available Software Validation
- Comprehensive Installation and Operational Qualification (IQ/OQ) documentation package.
- Control System Testing (CST) to verify system operations and functions, as well as confirm hardware and software component operations under normal operating conditions.

VirTis
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At a Glance: VirTis Control Systems

Capabilities:	Wizard 2.0	Wizard Workstation	Encore™	Maestro™
Up to 16 Primary and 1 Secondary Drying Steps	▪	▪	▪	▪
Thermal Treatment (Annealing) Phase	▪	▪	▪	▪
4-8 Product Probes	▪	▪	▪	▪
9-16 Product Probes			▪	▪
17+ Product Probes				▪
Integrated Performance and Vacuum Integrity Testing			▪	▪
Historical Data Trending		▪	▪	▪
Eutectic Point Monitoring with Data Trending			▪	▪
Batch Reporting				▪
Manual Pressure Rise (Barometric Endpoint) Testing			▪	▪
Automated Pressure Rise (Barometric Endpoint) Testing			▪	▪
Automated Pirani/CM Differential Feedback			▪	▪
Clean-In-Place (CIP) Cycle[†]				▪
CIP Skid Integration[†]				▪
Steam Sterilization Cycle[†]				▪
Multi-Level Security Capability			▪	▪
Security Integration with Microsoft Windows XP				▪
21 CFR Part 11 Compliance Capability with SQL Database				▪
RS-232 Communications	▪	▪	▪	▪
Ethernet Communications				▪
Cycle Customization				▪

* Wizard Workstation software is not Microsoft Windows Vista or Windows 7 compatible.

[†] *Requires additional system components.*