## The PACER DIGITAL SYSTEMS



Cryogenic Control System



The **CRYOvation** provides for easy replacement of older controls on Taylor-Wharton Cryo-Storage systems. By design, it will accommodate all older harness assemblies, plug configurations and power requirements. All the current components such as sensor assembly, solenoid valve and power input will work with the properly configured **CRYOvation**. Additional features include:

- Quick-Chill which brings the temperature back to normal operating temperatures more quickly after a lid opening.
- Auto-Defog which clears the fog when the lid is opened.
- · Event, Error and Temperature Logging which are useful for audit purposes.
- Temperature Monitoring is standard, even for a control that previously did not have this capability

The **CRYOvation** also provides for ease of operation with only 4 buttons on the front panel and an easy to follow menu system for changing settings. At a glance, the current status of all control parameters such as liquid level, temperature and alarm status can be observed.

The **CRYOvation** replaces the following controls:



## The CRYOvation LN<sub>2</sub> Level Control

Configurations	<ul> <li>Designed for the Taylor-Wharton K-Series line of refrigerators.</li> <li>As new, emulates Mark 2L control.</li> <li>Replaces older Mark 2L control (TW P/N R08K-9C00).</li> <li>Replaces older Mark II control with temperature (5140-1131).</li> <li>Replaces older Mark II control without temperature (5140-1132).</li> <li>Replaces older Mowden Fully Automatic control (5140-1128).</li> <li>Replaces older Mowden AutoFill control (5140-1127).</li> <li>Replaces older Mowden Low Alarm control (5140-1126).</li> <li>Internal cabinet mount and external mount configurations are available.</li> </ul>
Power	<ul> <li>24 VAC for new or matches the control being replaced.</li> <li>24 VAC, 40 VA for Mark 2L configurations.</li> <li>110 VAC or 220 VAC utilizing Mark II power supply.</li> <li>110 VAC or 220 VAC utilizing Mowden power supply.</li> </ul>
Display	<ul> <li>2 line x 20 character Liquid Crystal Display (LCD)</li> </ul>
Sensor Assembly	<ul> <li>4-Thermistor Assembly.</li> <li>Different connector depending on control being replaced.</li> </ul>
Temperature	<ul> <li>Type T Thermocouple (+/- 1° C or +/- 1.5%).</li> <li>Connector dependent on the control being replaced.</li> </ul>
Solenoid Valve	<ul> <li>24 VAC for new or matches the solenoid from the control being replaced.</li> <li>24 VAC Cryogenic solenoid valve for Mark 2L configurations.</li> <li>115 VAC/220 VAC Cryogenic Valve for Mark II configurations.</li> <li>115 VAC/220 VAC Cryogenic Valve for Mowden configurations.</li> </ul>
Control Type	Liquid Level Control & Temperature Monitoring
Security	Keylock
Alarms	<ul> <li>Activate an audible (beep) and a visual (red flashing LED) alarm.</li> <li>Description of alarm condition displays on front panel.</li> <li>A Remote alarm relay is activated after a user defined amount of time elapses following an alarm condition.</li> </ul>
Diagnostics	<ul> <li>Circuit diagnostics.</li> <li>Sensor Assembly diagnostics.</li> <li>Temperature circuit diagnostics.</li> </ul>
Communications	RS-232 communications for output of data
Logging Capacit	• 4000 events (Includes System, Error and Temperature Logs)
Warranty	<ul> <li>2 years</li> <li>Immediate replacement under the PDS repair/exchange program.</li> </ul>