

LACO's HVC-2500 Heat & Vacuum Controller combines VC-2500 technology with flexible heat control to create a powerful, automated control package. With an adjustable test recipe system, data logging, and remote integration, the HVC-2500 is ideal for LACO vacuum ovens and heater systems using vacuum gauges, vacuum valves, heating elements, thermocouples, and vacuum feedthroughs.



HVC-2500 Heat & Vacuum Controller



Flexible control for systems with:

- Thermocouples
- Heated platens, shelves, chamber walls, or shrouds
- Mechanical and instrumentation feedthroughs
- Internal or external electric heaters

### STANDARD FEATURES

- Graphical display of vacuum and temperature
- Program evacuation, vent, and hold conditions in any sequence
- Test up to 5 configurable recipes of 20 steps per recipe
- Display temperature readings from one or two zones
- Full RS232 serial interface control for remote integration
- Manual or auto control for vent and rough valves
- Log data directly to USB drive
- Auto control electric valves
- Controller includes gauge, valves, and cords

### APPLICATION EXAMPLES

- Vacuum ovens
- Vacuum bakeout and degassing
- Curing resins and compounds
- Environmental testing
- Moisture removal
- Product testing

### SPECIFICATIONS

COMPONENT	DESCRIPTION
Control System	Micro Controller with 7-inch Color Touch Screen
Remote Communication Interface	RS232
Electrical Requirements	120 VAC/20 Amp or 208-240 VAC/20 Amp
Data Storage	Ethernet, Micro SD Card, USB Drive
Dimensions	12" D x 24" L x 9" H
Configuration	Table-top, Cart, or System Frame Mount
Temperature Reading Display	Multiple
Temperature Setpoint PID Control	1 or 2 Zones
Recipes	Vacuum, Time, Hold, and Heat
Vacuum Level	Atm to $10^{-3}$ Torr



LACO Vacuum Oven with Integrated HVC-2500 Heat & Vacuum Controller

For complete, customizable temperature control, turbo pump valve sequencing and interlock, and pneumatic valve support, upgrade to the HVC-3500 Thermal Vacuum Controller.

# VACUUM & TEMPERATURE CONTROLLERS

## LACO CONTROLLER SPECIFICATIONS

	VC-1000	VC-2500	VC-3500	HC-1000	HVC-2500	HVC-3500
						
<b>Description</b>	Vacuum Control Package	Vacuum Controller	Vacuum Controller	Heat Controller	Heat & Vacuum Controller	Thermal Vacuum Controller
<b>Control System</b>	N/A	Micro Controller with 7-inch Color Touch Screen	Micro Controller with 7-inch Color Touch Screen	N/A	Micro Controller with 7-inch Color Touch Screen	Micro Controller with 7-inch Color Touch Screen
<b>Communication Interface</b>	N/A	RS232	RS232/Ethernet	RS485	RS232	RS232/Ethernet
<b>Electrical Requirements</b>	110-250 VAC (5 amps max)	110-240 VAC (15 amps max)	120 VAC/15 Amp or 208-240 VAC/15 Amp	110-240 VAC (15 amps max)	120 VAC/20 Amp or 208-240 VAC/20 Amp	120 VAC/20 Amp or 208-240 VAC/20 Amp
<b>Dimensions</b>	8" D x 8" W x 7.5" H	8" D x 12" L x 9" H	12" D x 12" L x 9" H	6" D x 10" W x 12" H	12" D x 24" L x 9" H	12" D x 24" L x 9" H
<b>Configuration</b>	Table-top or Cart Mount	Table-top, Cart, or System Frame Mount	Table-top, Cart, or System Frame Mount	Table-top or System Frame Mount	Table-top, Cart, or System Frame Mount	Table-top, Cart, or System Frame Mount
<b>Recipe Types</b>	N/A	Vacuum, Time, and Hold	Vacuum, Time, and Hold	N/A	Vacuum, Time, Hold, and Heat	Vacuum, Time, Hold, and Temperature
<b>Recipe Configurations</b>	N/A	Up to 5 configurable recipes	Up to 20 configurable recipes	N/A	Up to 5 configurable recipes	Up to 20 configurable recipes
<b>Software Customization</b>	N/A	No	Yes	N/A	No	Yes
<b>Data Storage</b>	N/A	USB Drive	Micro SD Card, USB Drive	N/A	USB Drive	Micro SD Card, USB Drive
<b>Turbo Pump Control</b>	N/A	N/A	Auto	N/A	N/A	Auto
<b>Valve Operation Mode</b>	Manual Vent and Evacuation, Auto Evacuation	Manual or Recipe	Manual or Recipe	N/A	Manual or Recipe	Manual or Recipe
<b>Vacuum Level</b>	Atm to 10 <sup>-3</sup> Torr	Atm to 10 <sup>-3</sup> Torr	Atm to 10 <sup>-7</sup> Torr	N/A	Atm to 10 <sup>-3</sup> Torr	Atm to 10 <sup>-7</sup> Torr
<b>Vacuum Pump On/Off Relay Option</b>	N/A	Yes	Yes	N/A	Yes	Yes
<b>Vacuum Valve Type</b>	Electric	Electric	Electric or Pneumatic	N/A	Electric	Electric or Pneumatic
<b>Temperature Control Type</b>	N/A	N/A	N/A	Heat	Heat	Heat or Cool
<b>Temperature Reading Display</b>	N/A	N/A	N/A	Single	Multiple	Multiple
<b>Temperature Setpoint PID Control</b>	N/A	N/A	N/A	1 Zone	1 or 2 Zones	Multiple Zones
<b>Heat Overtemperature Alarm</b>	N/A	N/A	N/A	No	Yes	Yes
<b>Vacuum Units</b>	Torr	Torr, psia, psig, inHgA, inHg, mbar, Atm, Pa, feet, meters, hPa, microns	Torr, psia, psig, inHgA, inHg, mbar, Atm, Pa, feet, meters, hPa, microns	N/A	Torr, psia, psig, inHgA, inHg, mbar, Atm, Pa, feet, meters, hPa, microns	Torr, psia, psig, inHgA, inHg, mbar, Atm, Pa, feet, meters, hPa, microns