

# LACO TECHNOLOGIES

## VACUUM & TEMPERATURE CONTROLLERS

Whether you need vacuum control, temperature control—or both—LACO’s family of controllers provides a comprehensive choice of control solutions for your vacuum system. From manual vacuum control to fully customizable software and test recipes, we thoughtfully designed each controller to support your price range and unique application.



Table-top vacuum system with VC-2500 Vacuum Controller

### VACUUM CONTROLLERS

Take charge of your vacuum process, maximize your uptime, and ensure your product integrity with LACO Vacuum Controllers. Options range from manual control to fully configurable recipes, customizable software, and flexible data logging.



VC-1000 VACUUM CONTROL PACKAGE

- Automatic setpoint control
- Manual operation of vacuum and vent valves



VC-2500 VACUUM CONTROLLER

- Log data
- Configure test recipes
- Program evac, vent, and hold conditions
- RS232 interface on color touch screen



VC-3500 VACUUM CONTROLLER

- Custom test or I/O requirements
- Turbo pump valve sequencing with interlocks
- Pumpdown timers
- RS232/Ethernet interface

### TEMPERATURE CONTROLLERS

From heat-only control to fully customizable thermal and vacuum control, LACO Temperature Controllers provide flexible, innovative control for vacuum ovens, vacuum degassing, bakeout, curing, environmental testing, moisture removal, and product testing.



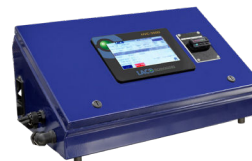
HC-1000 TEMPERATURE CONTROLLER

- Single temperature zone control
- Heat over-temperature alarm
- RS485 Interface



HVC-2500 HEAT & VACUUM CONTROLLER

- All features of the VC-2500 plus:
- Manual or auto heat control
- Automated thermal cycles & ramp rates
- Heat setpoint PID control (up to 2 zones)
- Multiple temperature reading display



HVC-3500 THERMAL VACUUM CONTROLLER

- All features of the VC-3500 plus:
- Fully customizable software for heating and cooling control
- Automated thermal cycles & ramp rates
- Heat setpoint PID control for multiple zones
- Multiple temperature reading display



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

## LACO CONTROLLER SPECIFICATIONS

	VC-1000	VC-2500	VC-3500	HC-1000	HVC-2500	HVC-3500
IMAGE						
DESCRIPTION	Vacuum Control Package	Vacuum Controller	Vacuum Controller	Heat Controller	Heat & Vacuum Controller	Thermal Vacuum Controller
CONTROL SYSTEM	N/A	Micro Controller with 7-inch Color Touch Screen		N/A	Micro Controller with 7-inch Color Touch Screen	
COMMUNICATION INTERFACE	N/A	RS232	RS232/Ethernet	RS485	RS232	RS232/Ethernet
ELECTRICAL REQUIREMENTS	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
DIMENSIONS (WxHxD)	8 x 7.5 x 8 in 20 x 19 x 20 cm	12 x 9 x 8 in 30.5 x 23 x 20	12 x 9 x 12 in 30.5 x 23 x 30.5 cm	10 x 12 x 6 in 25.5 x 30.5 x 15 cm	24 x 9 x 12 in 61 x 23 x 30.5 cm	24 x 9 x 12 in 61 x 23 x 30.5 cm
CONFIGURATION	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
RECIPE TYPES	N/A	Vacuum, Time, and Hold	Vacuum, Time, and Hold	N/A	Vacuum, Time, Hold, and Heat	Vacuum, Time, Hold, and Temperature
RECIPE CONFIGURATIONS	N/A	Up to 5 configurable recipes	Up to 20 configurable recipes	N/A	Up to 5 configurable recipes	Up to 20 configurable recipes
SOFTWARE CUSTOMIZATION	N/A	No	Yes	N/A	No	Yes
DATA STORAGE	N/A	USB Drive	Micro SD Card, USB Drive	N/A	USB Drive	Micro SD Card, USB Drive
TURBO PUMP CONTROL	N/A	N/A	Auto	N/A	N/A	Auto
VALVE OPERATION MODE	Manual Vent and Evacuation, Auto Evacuation	Manual or Recipe	Manual or Recipe	N/A	Manual or Recipe	Manual or Recipe
VACUUM LEVEL	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
VACUUM PUMP ON/OFF RELAY OPTION	N/A	Yes	Yes	N/A	Yes	Yes
VACUUM VALVE TYPE	Electric	Electric	Electric or Pneumatic	N/A	Electric	Electric or Pneumatic
TEMPERATURE CONTROL TYPE	N/A	N/A	N/A	Heat	Heat	Heat or Cool
TEMPERATURE READING DISPLAY	N/A	N/A	N/A	Single	Multiple	Multiple
TEMPERATURE SETPOINT PID CONTROL	N/A	N/A	N/A	1 Zone	1 or 2 Zones	Multiple Zones
HEAT OVER-TEMPERATURE ALARM	N/A	N/A	N/A	No	Yes	Yes
VACUUM UNITS	Torr	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	