

ChamberLog™

Chartless Recording System



COMPLETE HARDWARE/SOFTWARE DISTRIBUTED DATALOGGING SOLUTION

FOUR INDIVIDUALLY CONFIGURABLE ISOLATED INPUTS PER CHAMBERLOG

1500 V ISOLATION FOR ALL INPUTS

UP TO 20 CHAMBERLOGS PER SYSTEM

ARCHIVE RESULTS DIRECTLY TO CDs, HARD DISKS, ZIP OR FLOPPY DISKS

MORE VIABLE AND COST-EFFECTIVE THAN CIRCULAR CHART RECORDERS

HIGH AND LOW ALARM SETPOINTS FOR EACH CHANNEL

ACCOMMODATES WET/DRY BULB %RH READINGS

JC SYSTEMS QUALITY AND PERFORMANCE

Y2K COMPLIANT

MADE IN U.S.A.

The JC Systems ChamberLog™ is a complete hardware / software distributed datalogger system that provides a viable and cost-effective alternative to circular chart recorders for logging temperature data and other physical measurements in environmental test chambers, heat treating furnaces and related applications.

FLEXIBLE AND EXPANDABLE

ChamberLog allows up to four individually configurable inputs per chamber. Up to 20 ChamberLogs (total of 80 channels) can be serially linked via RS-485 network to any local or remote Pentium-based PC.

A 1500 V isolation is provided for all inputs in a ChamberLog network. Inputs to the 6B11 module can be thermocouple types J, K, T, E, R, S, or B or mV, V and mA (with M1381 ultra precision resistor). The 6B13 module should be used for platinum RTD inputs.

WINDOWS-BASED SOFTWARE

As an alternative to hard copy output from a circular chart recorder at each chamber location, ChamberLog's Windows NT/95/98-based software saves test chamber results to a CD or hard disk in a spreadsheet (Excel, Quatro Pro, or tab delimited text) for easy analysis, printing, graphing or storage. The program automatically time-and-date stamps all entries, and formats column headers and other report elements. This software is included with the ChamberLog hardware unit at no extra cost.

USER-FRIENDLY

ChamberLog eliminates conflicts with other hardware by using an independent serial network to allow interfacing RS-485 communications up to 4000' between units. Node configuration and setup is as easy as providing a file name for each chamber and the input types for channels 1-4 of each ChamberLog unit on the network.

Each channel is equipped with user-settable high and low setpoint, with alarm indication in the form of an audible signal and alarm message on the host PC screen. An optional AutoDialer can also be ordered to provide automatic alarm notification. The system display shows the actual reading for each channel and provides an "active" indicator, a "red" alarm condition indicator and an alarm acknowledge button for each channel.

ChamberLog can be programmed to read data at variable scan rates up to every five seconds. Actual logging can occur continuously, during alarm conditions, or at other intervals determined by the user.

Specifications

PENTIUM-BASED PC WITH RS232 PORT

If the Pentium-based PC is not equipped with an RS485 card (as shown in the diagram), ChamberLog Model CL2001 (which has a built-in RS232 to RS485 converter) must be used as the first unit in the network. Model CL2002 must be used as units 2 to 20. Maximum Distance between the PC and the first unit (Model CL2001) is 50 feet.

For distances greater than 50 feet or in noisy environments, the JC Systems M505 (RS232 to RS485 converter) or a PC with an RS485 card should be used as explained below.

PENTIUM-BASED PC WITH RS485 PORT

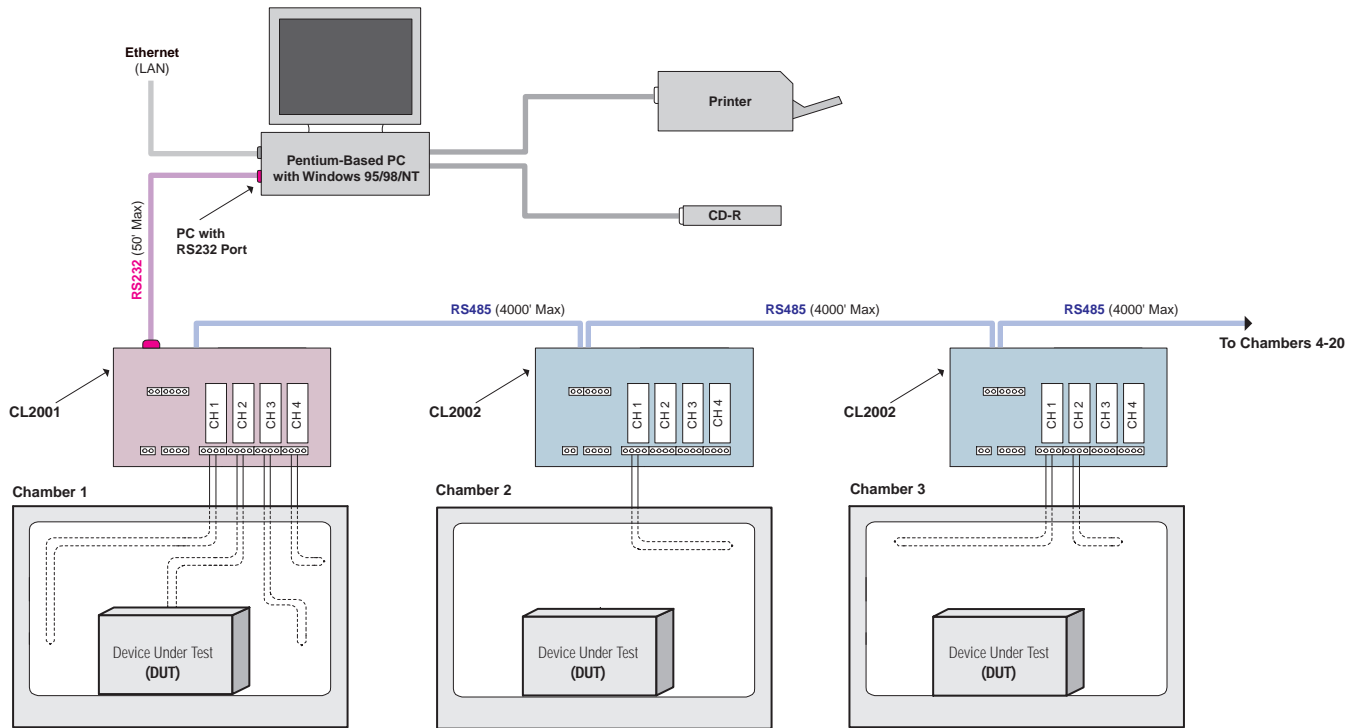
Up to 20 ChamberLogs units can be connected in series to a Pentium-based PC. If the PC is equipped with an RS485 port, ChamberLog Model CL2002 must be used on all 20 locations. Maximum distance between the PC and the first unit is 4000' when using RS485 wiring.

SPECIFICATIONS

Input Modules: (6B11 Module)	Thermocouples Type T: -100°C to 400°C range; Types J, K, E, R, S, B 4-20 mA Input: 0 to 100% RH (M1381 Ultra Precision resistor must be installed) mV, V Input;
(6B13 Module)	RTD platinum 100 ohm $\alpha = 0.00385$ (-100°C to +600°C range)
Input Resistance: (6B11 Module)	100 M Ω
Conversion Rate:	9 samples per second
Accuracy: (6B11 Module)	$\pm 0.05\%$ or better (Accuracy includes effects of repeatability, hysteresis, and linearity. The accuracies for the CJC sensor and the 6B11 module should be added to compute overall accuracy measurement.)
Zero Drift: (6B11 Module)	$\pm 0.3 \mu\text{V}/^\circ\text{C}$
(6B13 Module)	$\pm 0.005 \text{ }^\circ\text{C}/^\circ\text{C}$
Span Drift:	$\pm 3 \text{ ppm}/^\circ\text{C}$ typical, $\pm 25 \text{ ppm}/^\circ\text{C}$ maximum
Common Mode Rejection:	160 db
Common Mode Voltage:	1500 Vrms continuous
Cold Junction Comp:	Accuracy @ +25°C: $\pm 0.25^\circ\text{C}$ ($\pm 0.75^\circ\text{C}$ maximum) Over +5°C to +45°C ambient: $\pm 0.5^\circ\text{C}$ ($\pm 0.0125^\circ\text{C}/^\circ\text{C}$)

PHYSICAL CHARACTERISTICS

Overall Dimensions:	8" x 7" x 4 1/2" (without accessories); 10 lbs.
Mounting:	Wall mount (four 9/32" screws)
Power Requirements:	117 VAC $\pm 10\%$; 0.15A; 50/60 Hz



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