ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

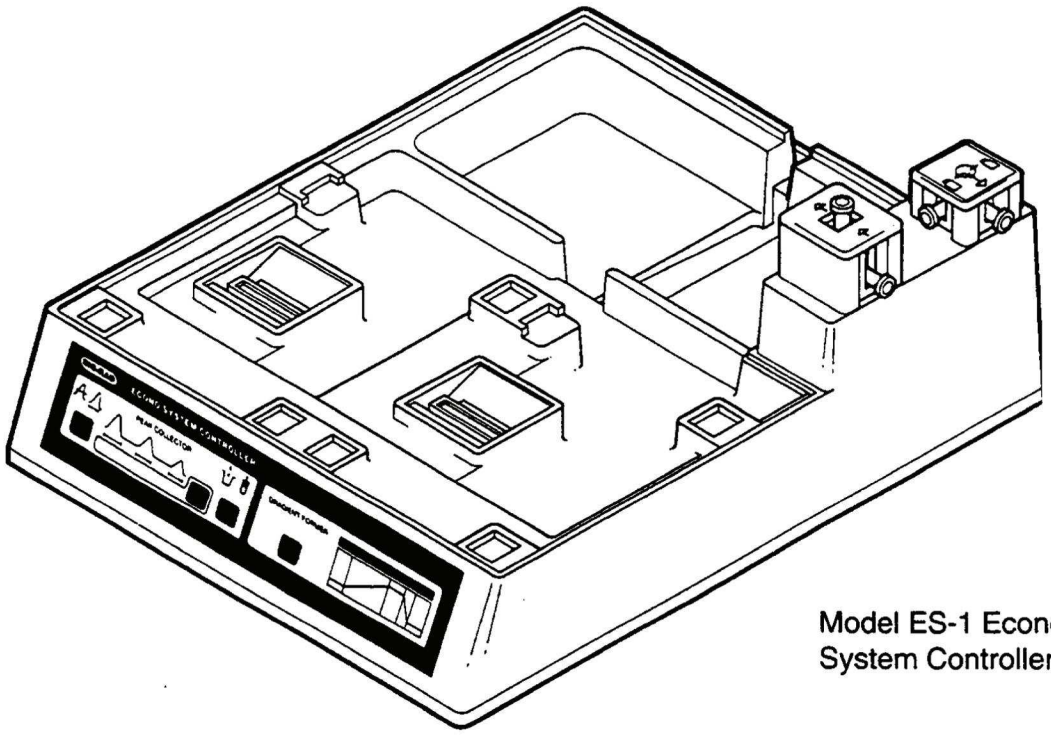
Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Bio-Rad ES-1* at our website: ***Click HERE***



Model ES-1 Econo
System Controller

The Model ES- 1 Econo System Controller integrates the individual components into a low pressure chromatography system. The Econo System controller provides the following functions:

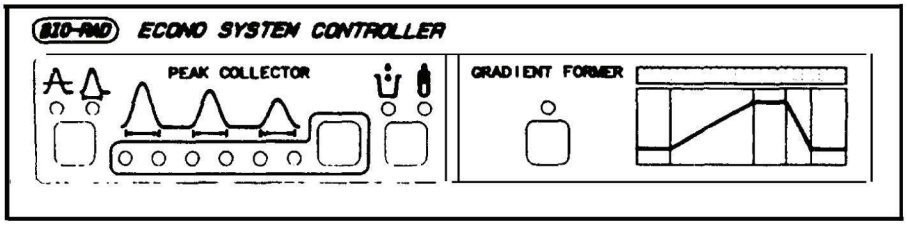
- Gradient proportioning and mixing
- Peak detection by threshold or time windows
- Programmed control of up to 5 solutions
- Waste/collect diverter valve
- 6-port manual injector valve
- Solvent ice bath

These functions supplement those provided by the Model EP-1 Econo Pump, Model EM-l Econo UV Monitor, Model EG- 1 Econo Gradient Monitor, Model EV-1 Econo Buffer Selector, and Model 2 I 10 Fraction Collector. This manual contains the necessary information for setting up and running the system. In some sections, references will be made to information

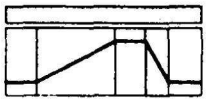
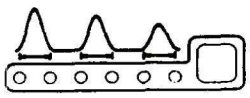
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Econo System Controller: Physical Description and Control Features

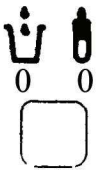
Front Panel Functions



Front panel controls.

Display	Function
 Gradient Former	This control is used to program binary gradient methods consisting of up to five steps in tandem with the integral proportioning valve and mixer. The gradient LED display gives quick identification of gradient progression.
 Peak Separator Key	This key is used to select between the two peak separation methods, threshold detection and time windows.
 Time Window Display and Key	This key is used to select up to three time windows for peak separation. During each time window, the diverter valve is routed to the fraction collector for collection of eluant.

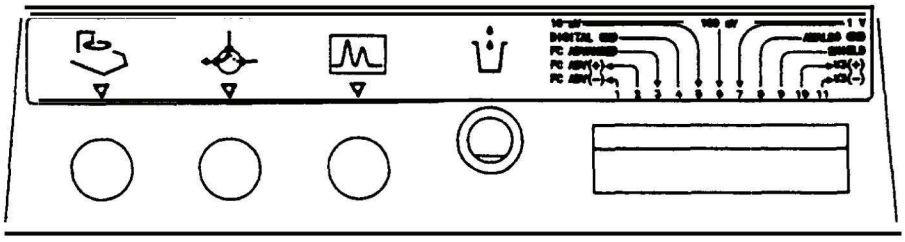
Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



Diverter Valve Indicator and Key

This display will indicate the position of the Model SV-3 Diverter Valve, used in fraction collection and peak separation programs. Diverter valve position can be overridden using the Diverter Valve key.

3.2 Rear Panel Functions



. Rear panel functions.

Display	Function
Fraction Collector Output	This 8-pin mini-DIN socket is used for sending an advance signal to the Model 2 110 Fraction Collector via cable #1.
Diverter Valve Output	This 8-pin mini-DIN socket sends a signal to the diverter valve, thus diverting flow from a fraction collector or collection device to another receptacle (waste), or vice versa.
Chart Recorder Output	This 8-pin mini-DIN socket is used for connection of the Model 1325 Econo Chart Recorder. The Econo System controller will control the pen lift and paper feed functions of the Model 1325 Econo Chart Recorder.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



Waste Port

All spills on the top of the Econo System controller are led to a central waste/collection port. From this port, a drain tube passes out through the rear of the case.



I/O Connector

This 1 l-pin connector is used for sending valve control signals to the Model EV- 1 Econo Buffer Selector via Econo System Cable #10. Refer to the Econo Buffer Selector manual for details.

This connector is also used for connecting non-Econo System components including fraction collectors, UV monitors, and chart recorders to the Econo System.

Topside Functions

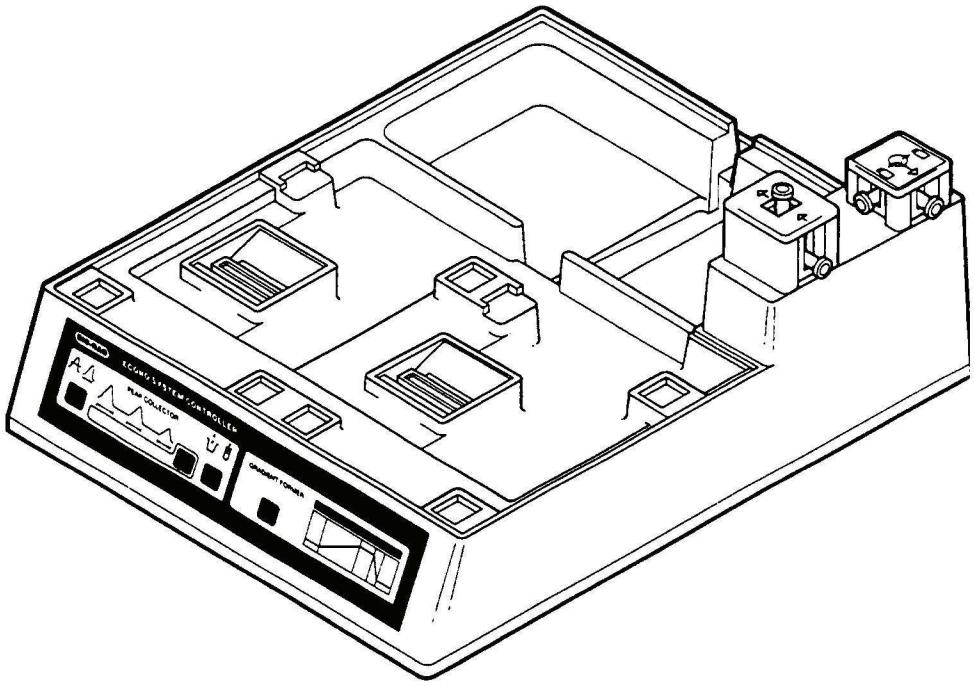
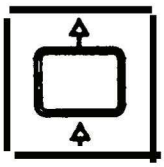
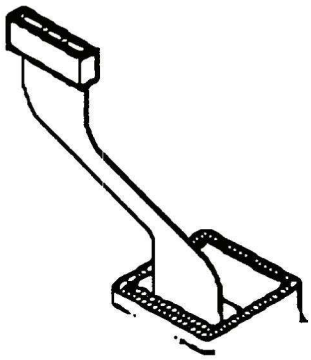


Fig. 3.3 Top view of the Econo System controller.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

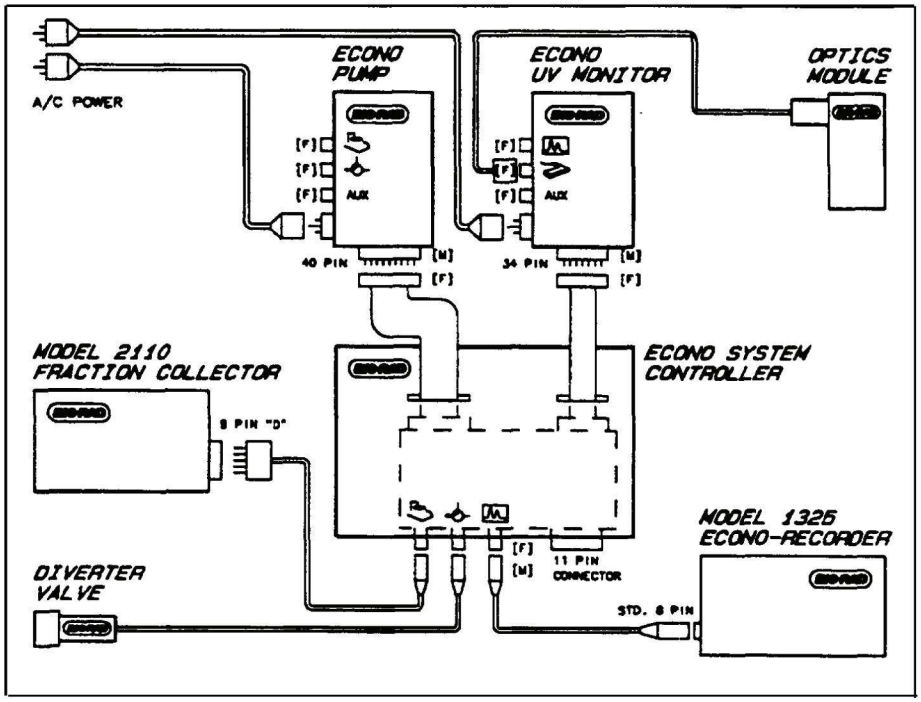
Display	Function
 Gradient Proportioning Valve	This valve is used for proportioning two solvents for the purpose of forming linear gradients, as dictated by the Gradient Former control.
 Mixer	Dynamic mixer for the rapid mixing of two solutes.
 Ribbon Cables	These 34- and 40-pin ribbon connectors are for connecting the Model EM-1 Econo UV Monitor and Model EP- 1 Econo Pump, respectively, to the Econo System controller. Power is supplied to the system controller through the 40-pin Econo Pump connector.

Econo System Controller Connections and Set Up

The Econo System can be set up in a variety of locations, including 4 °C cold rooms or cold boxes. The orientation of the system is up to the user. The Econo System Rack is designed to hold the Model EM-1 Econo UV Monitor optics module, diverter valve, and sample injection valve. The Econo System Organizer is designed to lift up the Econo System Controller for placement of the Model EG-1 Econo Gradient Monitor and Model EV-1 Econo Buffer Selector underneath. For this reason, it is recommended that the Econo Rack and Econo System Organizer be set up before proceeding.

The Model EP- 1 Econo Pump and the Model EM- 1 Econo UV Monitor have two connection modes. In both the stand-alone and the system configuration, the power connections are made from the back of each instrument. The system controller receives its power from the Model EP-1 Econo Pump. To access system functions provided by the Econo System controller, ribbon cables on the top of the system controller are used for connection to the underside of the pump and UV monitor.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com



Econo System external connections.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP