



STRONG AROUND THE WORLD

CineNet™ eCNA Series AUTOMATION

O V E R V I E W

For many years now, the CNA automation system has provided theatre operators with the tools to reliably automate the cinema presentation. Today, digital cinema projection systems and servers are playing a larger role in the total cinema experience. It is now necessary to integrate new digital technology with the existing 35 mm film equipment. The new eCNA automation systems are equipped with additional features that make this integration easy. The eCNA connects to the local area network (LAN) via its own ethernet port. It provides standard TCP/IP based connectivity to the digital cinema equipment. By exchanging status and control information with the cinema management system, the digital projector and film projector will share the screen in a coordinated manner. The eCNA brings the two technologies together into a single user interface. It provides automatic and manual control as well as displays critical information about the digital and film operations. Its ease of use allows both new and experienced operators to effectively manage the equipment which is key in maintaining a quality presentation.

- User-friendly Interface
- 10Base-T Ethernet with TCP/IP Connectivity
- Open Communications Protocol for Integration with Digital Projection Systems
- Enhanced Instructions and Operation
- Two RS-232 Serial Ports
- Digital/Film Interlock Capability
- Enhanced Local and Network Status Screens
- Automatic and Manual Control
- User Configurable Password Protection
- Cost Effective eCNA Control Board upgrade when installed in an existing automation
- Convenient Manual Override switches can be directly wired to console termination panel via a quick-disconnect harness
- Cost Effective Expandable I/O
- Event logging



eCNA-200 Strong's flagship automation system features a backlit graphical LCD display. The eCNA-200 provides the end user with an interactive system capable of monitoring key booth equipment and displaying show status from the cinema ticketing system. New features easily automate the digital and film projection systems. Flexible programming, password protection, and a customizable display interface make this automation an industry leader.



eCNA-150 This system features Cue Learn capability with up to 9 User-Defined Programs and up to 9 film-cued sequences per program. Programming and operation in easy and intuitive. The two-line Digital Display shows programming and status information.

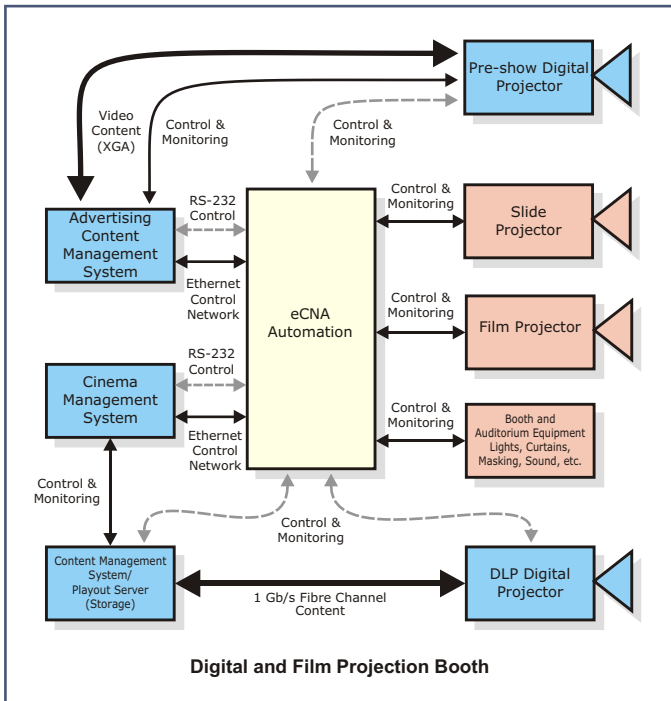


eCNA-100 Standard Automation System features an intuitive, user-friendly interface. It has the capability of 9 user-defined programs with 9 film-cued sequences per program. Sync capability of multiple groups of multiple machines is a standard feature.



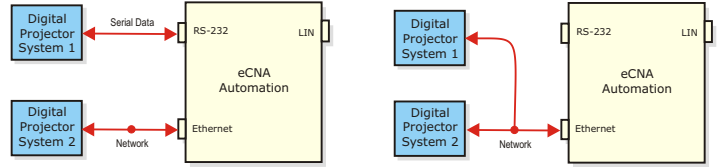
a division of Ballantyne of Omaha, Inc.

DIGITAL AND FILM INTEGRATION MADE EASY



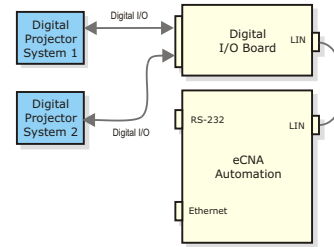
Serial - Ethernet / RS-232

This implementation requires a serial connection to the digital projector systems using the either RS-232, Ethernet or a combination of both. The eCNA accepts ASCII serial commands from the digital client(s) for status and control purposes.



Digital I/O

This implementation assumes that a serial connection is not available or not required. Discrete digital output and input signals to the digital client(s) are used for status and control purposes. Digital projector specific I/O functions are assigned and controlled by the eCNA.



The Digital projection system can now

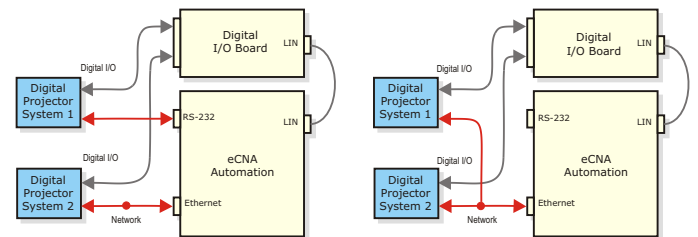
- Send information to the eCNA automation for control purposes such as start, stop, and show cue.
- Receive status and control information from the eCNA automation for starts, stops, and coordination with the film projection equipment.
- Easily control outputs and read inputs connected to the eCNA for automating aspects of the presentation.

Implementation and Requirements

There are several versatile topologies the eCNA automation is capable of supporting. Some of the most common applications are shown with all necessary hardware components indicated. Regardless of your requirements, legacy CNA automations can easily be upgraded to support multiple projector systems. The following information is provided assist you in deciding which option is right for your unique application.

Serial and Digital I/O Combination

This combines the serial and digital I/O implementations. This is the most flexible setup allowing the digital client(s) to read digital inputs and control individual outputs as well as exchange information serially with the eCNA mainboard.



CNA Automation System Requirements

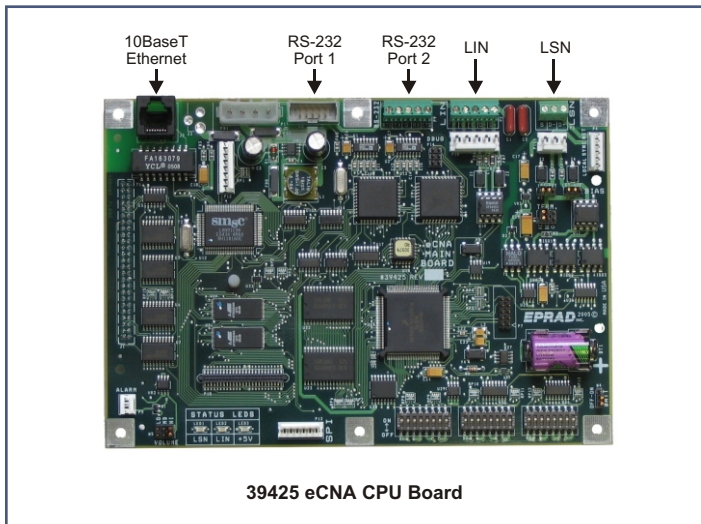
Current Automation System Configuration	Additional Components Required for Serial Only Implementation	Additional Components Required for Digital I/O Implementation (These components also support Serial implementation)
CNA with 39330 Console Board 39331 Booth Board	39425 eCNA Main CPU Board	39425 eCNA Main CPU Board along with one or more of the following: 1) 39490 I/O Board; 2) 39431 House/Aux Board (Replaces 39331); 3) 39431 House/Aux Board w/39436 Aux I/O Board (Replaces 39331)
CNA with 39332 Single Board	39425 eCNA Main CPU Board	39425 eCNA Main CPU Board along with one or more of the following: 1) 39490 I/O Board; 2) 39432-1 Combo Board with 39436 Aux I/O Board (Replaces 39332)
eCNA with 39330 Console Board 39331 Booth Board	None	One or more of the following: 1) 39490 I/O Board; 2) 39431 House/Aux Board (Replaces 39331); 3) 39431 House/Aux Board w/39436 Aux I/O Board (Replaces 39331)
eCNA with 39332 Single Board	None	One or more of the following: 1) 39490 I/O Board; 2) 39432-1 Combo Board with 39436 Aux I/O Board (Replaces 39332)
eCNA with 39432-2 Film Board 39431 House/Aux Board	None	One or more of the following: 1) 39436 Aux I/O Board; 2) 39490 I/O Board
eCNA with 39432-1 Combo Board	None	One or more of the following: 1) 39436 Aux I/O Board; 2) 39490 I/O Board

Note: These are the most common configurations for new orders and upgrades. There are other possible configurations not described in the above table. For example, an old single termination board (39332) could be replaced by a new dual board set (39432-2 and 39431). Please contact the factory for more options.

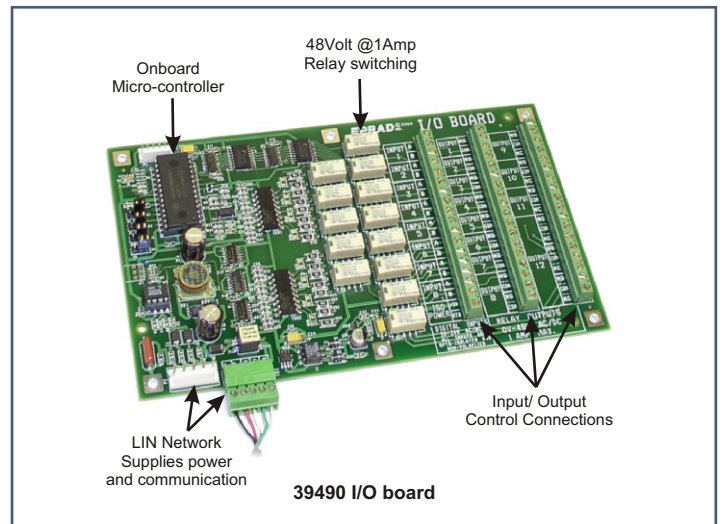
NEW COMPONENTS FOR UPGRADES

To keep up with the changing cinema industry, the CNA automation system has a number of new components. These new components provide the necessary architecture to control multiple digital and film projection systems. These components are available separately allowing older CNA automation systems to be easily and cost-effectively upgraded.

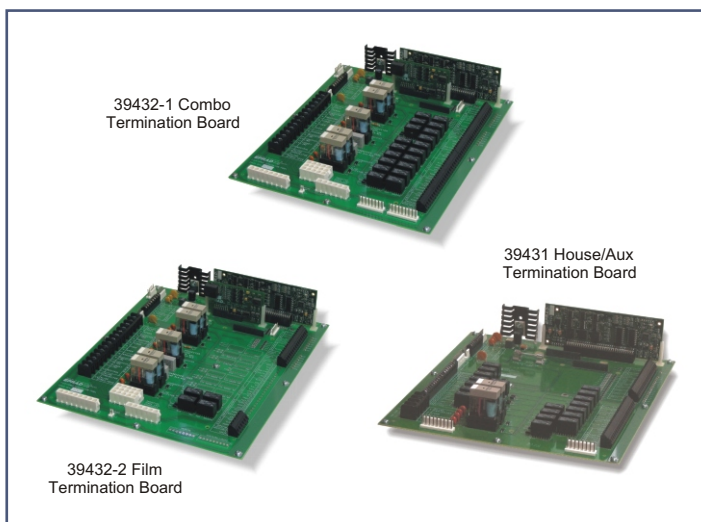
39425 eCNA CPU Board can be used to upgrade any standard CNA automation. This upgrade essentially converts a CNA to an eCNA with full ethernet functionality and the ability to fully utilize the latest firmware and the CineSuite software package. The procedure is simple and cost effective. When a CNA-200 is upgraded, full KDI and Digital projector interface applications become a reality.



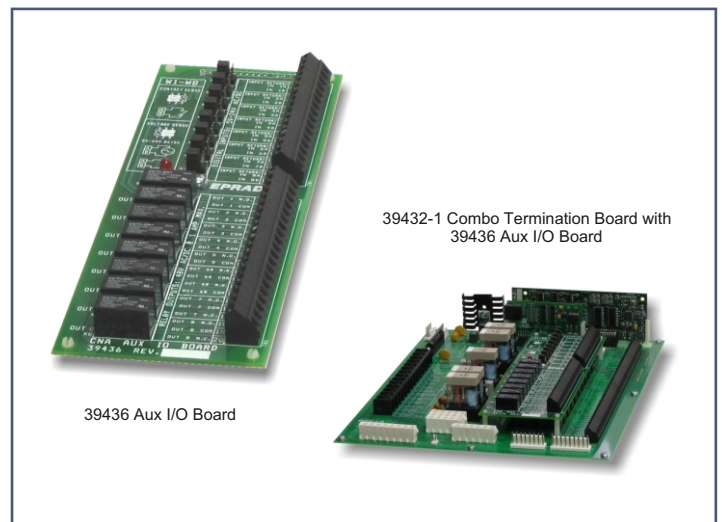
39490 I/O board is a cost-effective I/O board designed with digital projection in mind. This board adds 12 relay outputs and 8 isolated inputs to any eCNA automation. The I/O can be used by both the CNA and Digital Projection system. Being an LIN device, the board can be mounted in a convenient location. The eCNA supports up to two boards providing a total of 16 inputs and 24 outputs.



39431, 39432-1 and 39432-2 Termination Boards are a new and improved version of the existing CNA terminations boards. These boards incorporate all the functions of the existing boards. They were designed with standard programmable I/O that support Digital projection system interfacing. Additional functionality can easily be added with the 39436 Aux I/O Board.

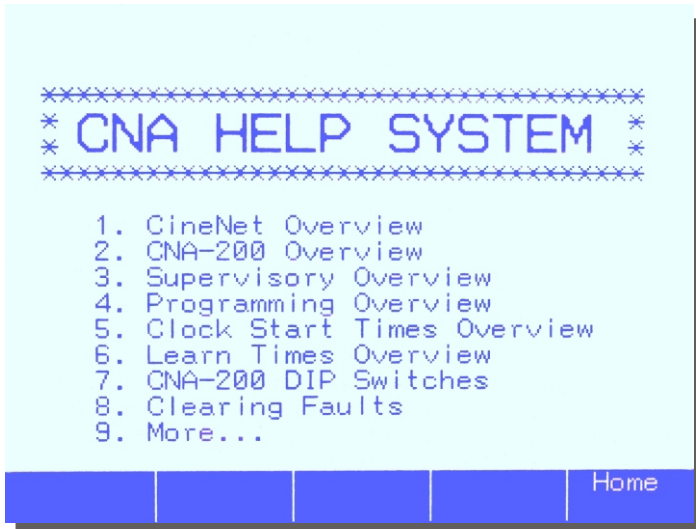


39436 Aux I/O Board is a low cost I/O board designed to plug onto the new CNA termination boards. This board will add 8 relay outputs and 8 isolated inputs to any CNA automation. All I/O points are programmable and can be used by both the CNA and Digital Projection system. The CNA will support two of these boards for a total of 16 outputs and 16 inputs.



IMPROVED CINESUITE SOFTWARE PACKAGE

The eCNA-200's potential is fully realized when used with the KDI and CineSuite software packages. These user friendly program suites provide access to features that no other cinema automation system can offer. Off-the-shelf ease of customization and integration make the eCNA system function as if it was built specifically for your application.



KDI Interface Software

The KDI (Keypad Display Interface) software is virtually limitless in its application. The eCNA-200 front panel can host messages from other equipment, communicate with ticketing interface programs, and display valuable reference information about your eCNA. Additionally, the front panel keypad can be used as an input for other devices in the theatre. With a combination of an Ethernet port and a pair of RS-232 serial ports the eCNA is able to communicate with most equipment using industry-wide IEEE communications standards. The eCNA-200 with CineSuite running the KDI server protocol makes it easy to toggle between the film, slide and two digital projectors. The eCNA-200 will effectively become the central controlling interface for your projection equipment and your PC will manage its command, scheduling, reporting, and sequencing data. New software and hardware applications are constantly being developed for the eCNA network and we intend to remain on the cutting edge of theatre automation.

CineSuite Software Package

Revised CineSuite software has been developed to give the user access to monitor, modify, program, and administer their entire CNA network locally, over the internet from home, or remote theatre locations. The native TCP/IP functions with the eCNA will make installation, setup, and use easier and faster than ever.

- The eCNA will act as the go-between with digital and film projectors to make your presentation's transitions exactly as you specify, every time.
- With the CineSuite software package, ticketing interface system information from most major vendors can be displayed locally on the eCNA's status screen. Currently the eCNA supports Splyce, Retriever, Vista, Omniterm, and RTS systems with more being added in the future.
- Enhanced security functions let you administer who uses your system and how much access they have.
- KDI software protocol editing functions are built in to the CineSuite Manager software, from this program screens can be generated to place any ASCII text messages desired on the eCNA-200's display.
- Firmware upgrades over TCP/IP. Upgrade is now easier, many times faster, more reliable, and can be done remotely from the CineSuite Manager application.
- Streamlined and refined programming based on end-user feedback and field experience makes installation, setup, and learning the CineSuite software package easier than ever.