

# JL Cooper Electronics

*Control, Automation, Synchronization and Interfacing Products*





# JLCooper - New Products and Updates

See our New Catalog and updated Web Site for Additional Information



## **MCS5 USB - Media Control Station** **New! with Live Relegendable LCD Button Labels**



MCS5™ features professional transport buttons, a precision optically encoded jog wheel, 8 assignable function keys with live LCD labels (Key Function and label change on the fly for different editing operations). Arrange editing functions into different banks, to group frequently used commands. For example, have one bank for ingest, a bank for editing, etc.)

Use supplied keysets for advanced control of Final Cut Pro X, Premiere Pro, Pro Tools, Nuendo, iMovie and others, or make your own.

JLCooper controllers let you work faster. They provide the ease-of-use and tactile assurance that's missing from "software only" user interfaces. Professionals depend on JLC control products to provide reliable service that far outlasts alternatives.



MCS5 Software for Mac

## **Nuage Panner - Surround Panning Controller** **New! For Yamaha Nuage Console and Steinberg Nuendo**



Nuage Surround Panner™ combines a high-quality, three axis joystick with five touch-sensitive, push-button, rotary encoders, nine illuminated buttons and a three digit LED display, for indicating track number. The controller can be easily connected, using it's own built in 10/100 ethernet interface. With it's custom software plug-in for Steinberg Nuendo (Mac and Windows), the panner is specifically designed to mount directly into the Yamaha/Steinberg Nuage Console expansion chassis (NWS500-SM).

Controls include real time control and automation of Joystick X, Y, Z, Global Divergence, Auto Orbit, Front Divergence, Rear Divergence, Center Distribution, Front-Rear Divergence, LFE Level, Manual Orbit and more.

## **Eclipse PX - Surround Panning Controller**



Eclipse PX™ combines a high-quality, three axis joystick with five touch-sensitive, push-button, rotary encoders, nine illuminated buttons and a three digit white LED display for indicating track number. The controller can be connected to a computer, using it's own built in 10/100 Ethernet interface, or to other Eclipse units via internal expansion port. It can be physically connected with other Eclipse units using Eclipse Joiner Kit.

Eclipse PX is functionally identical to the Nuage Panner listed below and can be used to directly control surround mixing in Steinberg Nuendo and other applications. With it's own custom software plug-in for Steinberg Nuendo, Eclipse PX provides precise control of all automatable surround automation parameters.

Controls include real time control and automation of Joystick X, Y, Global Divergence, Auto Orbit, Front Divergence, Rear Divergence, Center Distribution, Front-Rear Divergence, LFE Level, Manual Orbit and more. Software developers can take advantage of the Eclipse PX as a stand alone unit or combine it with other Eclipse components to make a specialized controller for your specific needs.

## **Eclipse MXL Midnight - 8 Fader Controller/Expander w/LCD Buttons**



Eclipse MXL™ is our newest fader controller, featuring high-quality, touch-sensitive, 100mm motorized faders and high-resolution backlit LCD display buttons. It displays channel labels, color coded track arming status and other mission critical information. The LCD buttons can display 64 colors and up to 32 characters of text and graphics.

Optional USB, 10/100 Ethernet, RS-232 and RS-422 interface cards provide connections to host systems.

Compatible with L-S-B Virtual Studio Manager, Mosart Medialab Automation, Sony's ELC Enhanced Live Production Control System and other software applications.

**NABSHOW**  
Where Content Comes to Life



## ***SloMo Elite - Sports/SloMo Control Surface***

Elite SloMo is a new Sports/SloMo control surface, expressly made for Developers and OEMs. Its advanced design provides a number of options for OEM customization, without the costs normally associated with developing customized hardware. Includes built in USB and Ethernet Interfaces.

Options include dual-color LED illuminated relegendable, or remotely relegendable NKK Hi-Res RGB LCD buttons, Standard, Detented or Touch-Sensitive, Motorized T-Bar, JLC Cooper or Sony Jog/Shuttle Mechanism, Electro-Mechanical Jog/Shuttle Mechanism (Coming Soon), 4.5" x 2.5" LED Backlit 240 x 128 White Graphic Display, Optional Touch Screen, internal switching power supply, Firmware updates can be installed via USB or Ethernet.

## ***sBOX8D & BOX8R - Remote Trigger Boxes for eBox & gBox***



Connect the new sBOX to gBOX (GPO Trigger Box), or eBOX (Quad Serial/Ethernet/GPI Interface), as a simple, relegendable remote, to trigger GPO events. In addition, with eBOX, you can use sBOX to trigger the sending of user programmed serial or ethernet messages.



sBOX features 8 LED backlit buttons, an illuminated bank switch that allows a single sBOX to control up to 24 GPO's.

Use a single sBOX with bank switching or multiple sBOX units (up to 3) to provide dedicated buttons for up to 24 GPOs.



eBOX with sBOX8R in JLC RackTray

## **Other New Software and Updates**

Eclipse Ethernet Software for OSX Lion - version 2.9.3 - 64 bit only. Fixes connectivity issue. Supports new OS X security. Simplified installation and setup. Support for controlling FCP X Color Board with Eclipse Trackballs. Displays FCP X time-code. Additional support for FCP X 10.0.6. Support for Avid Media Composer 6.

ES-SloMo RS-422 SP version browse clips/clip names with AJA KiPro, FFV Micron

Mosart Medial Lab Supports ES-8/100 RS-422 & USB Versions, also new support for Eclipse MXL.

eBOX for OSX Lion - version 1.7 - 32/64 bit compatible. Fixes connectivity issue. Supports new OS X security. Simplified installation and setup. Programming and front-end software for the eBox. Send a combination of GPI contacts and serial messages and MIDI with a mouse click or a keystroke. Send MIDI to other applications in response to GPI contacts and serial messages.

gBOX update supports KeyShot Macro Mode Control

FaderMaster Pro Software for OSX Lion - version 1.6 - 32/64 bit compatible. Supports new OS X security.

eBox Configuration Utility - Windows application allows you to retrieve and configure the eBox settings while the unit is in use. Windows 7 (64-/32-bit), Windows Vista (64-/32-bit), Windows XP (32-bit)

PPS-2 Remote Software for Macintosh - OSX version 2.1.1 - Compatible with Lion™ and Mountain Lion. 64 bit only. Supports new OS X security. Set frame rate, start and stop times and perform batch striping.

FaderMaster 4/100 USB software for Macintosh OS X version 3.8.2 - Compatible with Lion and Mountain Lion. 64 bit only. Fixes connectivity issue. Supports new OS X security. Simplified installation and setup. Fixes fader range problem.

MCS2 USB Software for OS X version 2.8.2 - 64 bit only. Fixes connectivity issue. Supports new OS X security. Simplified installation and setup. Includes support for FCP 7, FCP X, Avid MC6, Premier Pro and other applications.

MCS3 USB Software for Mac OSX version 3.8.2 - 64 bit only. Fixes connectivity issue. Supports new OS X security. Simplified installation and setup. Adds support for Avid MC 6 and additional features for FCP X 10.0.6 and later.

MCS3 SP USB Software for Mac OSX version 3.8.2 Compatible with Lion and Mountain Lion. 64 bit only. Fixes connectivity issue. Supports new OS X security. Simplified installation and setup. Adds support for Avid MC 6 and additional features for FCP X 10.0.6 and later. For MCS3 SP only.



# SERIOUS ABOUT CONTROL

"Precision control unleashes creativity."

JLCooper is serious about precise control. We're devoted to producing professional-quality Control, Interfacing, Synchronization and Automation Products. Our mission succeeds when a difficult task is accomplished faster, easier and with increased reliability.

Effortless control expands your imagination. JLCooper controllers let you work faster and with increased proficiency. They provide the ease-of-use and mission critical tactile assurance that's missing from mouse-based or touch screen user interfaces.

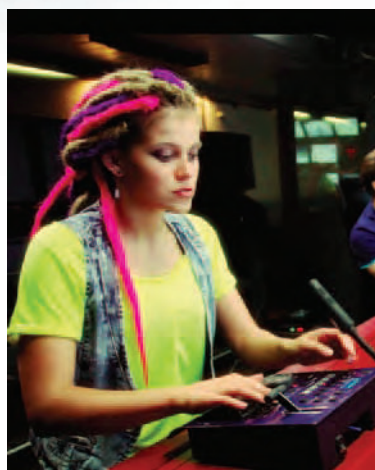
With the largest line of control products for computer based systems and specialized applications, our products set the standards that others follow.

Our record speaks for itself with over 30 years of award winning products hard at work every day.

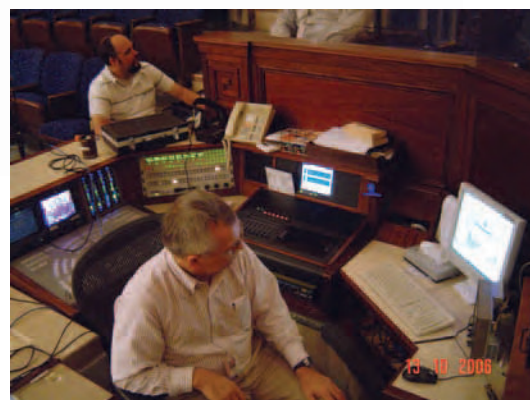
Our clients include ABC, Agfa Healthcare, Apple, BBC, CBC, CBS, CNN, DIRECTV, ESPN, HBO, Heartlab, IBM, IMAX, Industrial Light & Magic, The Julliard Academy, Lockheed Martin, MIT, MTV, National Center for Macrobiological Research, NBA, NBC, NFL, NFL Films, Pixar, Sony Pictures, Technicolor, Universal Studios, Walt Disney Studios, Warner Brothers Studios, the U.S. Congress, and the Library of Congress.

Thousands of leading companies in audio and video production, television and radio broadcast, animation, sound reinforcement, lighting, aerospace, education, scientific research, medical imaging, recording artists and others rely on JLCooper products every day.

Contact us today to find out how serious we are about making your job faster and easier. Call 310-322-9990 or email [sales@jlcooper.com](mailto:sales@jlcooper.com).



*slomo.tv editor*



*US Senate Chambers*

## **JL** COOPER ELECTRONICS

**Control, Automation, Synchronization, & Interfacing Products**

[WWW.JLCOOPER.COM](http://WWW.JLCOOPER.COM)



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# ECLIPSE<sub>CX</sub>



## *Eclipse CX Midnight* *Integrated Color Control Surface*

JLCooper's Eclipse CX Midnight is a refined version of our successful Colorist Command Station. It's designed for precision control of professional video color correction and editing software, including DaVinci Resolve, Snell Archangel PH.C-HD, Apple Final Cut Studio and Color. Eclipse controllers let you perform precise edits in real-time, accelerating your workflow in ways you never thought possible.

The CX is a professional-quality, 3rd generation Color control surface with abundant controls conveniently placed at your fingertips.

It features a full array of controls including 3 custom trackball mechanisms with purpose designed, free-spinning control rings.

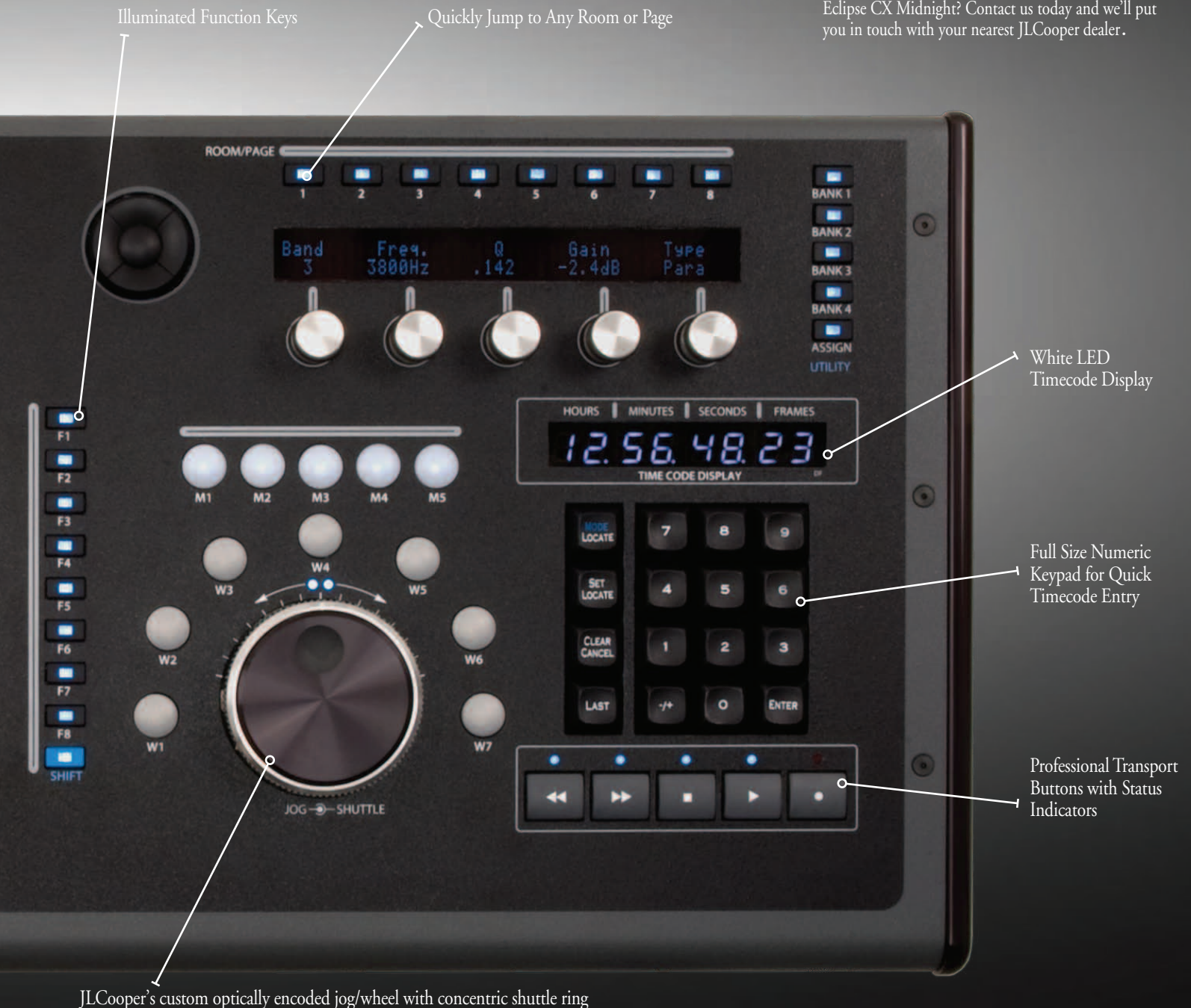
You get fast access to color parameters with 6 smooth, high-resolution rotary encoders (each with individual reset buttons). There are 41 illuminated function keys, 7 edit keys, 3 VF displays, white LED timecode display, professional transport buttons with status indicators and JLCooper's custom optically encoded jog/wheel with concentric shuttle ring.

Our new "Midnight" finish, with white LED's and indicators, reduces light emission and intrusion on colorist's eyes.

Eclipse CX Midnight is the perfect addition to your digital intermediate or finishing suite. Don't waste your money on cheap imitations. No other control surfaces offer the compatibility or proven reliability. With the worlds largest line of control products for computer based editing systems, our products set the standards others follow.



Eclipse CX is the perfect addition to your new digital intermediate or finishing suite. Can't wait to see the Eclipse CX Midnight? Contact us today and we'll put you in touch with your nearest JLCooper dealer.



25.75 in - 65.4 cm

11.5 in  
29.21 cm

Weight  
14 lbs  
6.35 kg

- Works with DaVinci Resolve
- New support in Snell Archangel Ph.C - HD
- Speeds Color Grading Workflow
- Integrated Compact Control Surface Saves Space
- Precise, Hi-Resolution, Professional Quality Controls
- Easy-to-See Illuminated Keyswitches
- Attractive, Low Profile and Compact Design
- Software for OSX Lets You Use Eclipse CX with Any Application. (A JLCooper Exclusive)

3.25 in  
8.255 cm





## *Eclipse CX Midnight* Integrated Color Control Surface



Walter Biscardi (Biscardi Creative Media on Apple Color) "Neither control surface (Tangent or Euphonix) is nearly as functional as the JLC Cooper Eclipse."  
– Creative Cow

### **DIRECT SUPPORT IN DAVINCI RESOLVE & SNELL ARCHANGEL PH.C-HD**

Eclipse CX Midnight provides control of professional video color correction and editing software, including DaVinci Resolve, Snell Archangel Ph.C-HD and Apple Final Cut Studio/Color. It lets you precisely adjust multiple parameters in real-time, accelerating your workflow in ways you've never imagined.

The CX is a professional-quality, 3rd generation control surface with abundant controls conveniently placed at your fingertips. Our new "Midnight" finish, with white LED's and indicators, reduces light emission and intrusion on colorist's eyes.

New software provides tighter control than ever before with Apple Final Cut Pro, Color and other Mac applications. It's also compatible with IFX (Piranha Cinema HD), IRIDAS (Speedgrade) and others. Eclipse CX Midnight is the perfect addition to your digital intermediate or finishing suite.

## *Eclipse BTX Midnight* Primary Transport Controller



Weight  
7.35 lbs  
3.34 kg



Eclipse BTX is the heart of the Eclipse control product family. Combined with Eclipse SX, it's a modular alternative configuration to Eclipse CX that lets you arrange your workspace to incorporate tablets, keyboards and other expansion options like the MX Midnight.

It features JLC Cooper's custom optically encoded jog wheel with concentric shuttle ring, professional transport buttons and 23 white illuminated function keys. It's a low profile, compact design, with professional controls and quality construction.



*Eclipse SX and BTX Midnight*



## *Eclipse SX Midnight* Compact Color Control Surface

Eclipse SX Midnight is essentially the left side of an Eclipse CX in a compact, stand-alone package. New capabilities allow it to be used by itself without the need for a transport section. This makes the SX our most compact, flexible and affordable option for precision control. It's perfect for on-set color correction of dailies with Filmlight and other systems.

When you're ready, you can add on the Eclipse TX (for transport, jog/shuttle, room selection, and function keys). Make a customized modular surface as your budget and workspace allows. Eclipse SX can be easily coupled with Eclipse TX or MX, using the Eclipse Joiner Kit.

Eclipse SX is compatible with Filmlight Baselight, Baselight Transfer, Truelight, DaVinci Resolve, Snell Archangel Ph.C-HD, Apple Final Cut Pro, Color, DVS CLIPSTER and others.

**WORKS WITH FILMLIGHT  
AND OTHER SYSTEMS**



Weight  
8.6 lbs  
3.9 kg

11.5 in  
29.21 cm



3.25 in  
8.255 cm

14.5 in  
36.2 cm



*Eclipse SX and TX Midnight*

## *Eclipse TX Midnight* Compact Transport Controller

Eclipse TX is an expansion option for Eclipse SX. Combined with Eclipse SX, it's a modular, lower cost alternative that lets you arrange your workspace to incorporate tablets, keyboards and other expansion options like the Eclipse MX Midnight.

It features JLC Cooper's custom optically encoded jog/wheel with concentric shuttle ring, professional transport buttons and 23 function keys, with white LED indicators. Optional interface cards provide stand-alone flexibility for developers and OEMs.

8 in  
20.32 cm



11.5 in  
29.21 cm



3.25 in  
8.255 cm

Weight  
6 lbs  
2.72 kg



## Eclipse Bridge Midnight

### Precision Controller/Expander

The Eclipse Bridge Midnight Controller/Expander (shown with Eclipse CX) adds 4 additional banks of VF displays, with 3 Hi-Res push-button rotary encoders per bank (with reset buttons) and 8 global function keys.

This space saving design mounts on the back of Eclipse CX or Eclipse SX and puts valuable additional controls at your fingertips without wasting desktop space.

This product is currently only available for software developers.



*Eclipse CX and Eclipse Bridge Midnight*

## Eclipse NX Midnight

### Precision Trackball Controller

Eclipse NX is a new trackball controller that can be used as an expansion option or stand-alone controller. It can be used with Eclipse CX or SX with supporting software as a fourth trackball, navigational device and mouse replacement.

With JLC Cooper Eclipse software for Mac OSX, it works as a stand alone USB controller and mouse.

It features a single transparent, back-lit, trackball mechanism with specially designed free spinning control ring, 6 high-resolution rotary encoders, and 10 function keys.



11.5 in  
29.21 cm

Weight  
6 lbs  
2.72 kg

3.25 in  
8.255 cm

6 in  
15.24 cm



*Eclipse NX Rear Panel*



## Eclipse PX - Surround Panning Joystick Controller

Eclipse PX combines a high-quality, three axis joystick with five touch-sensitive, push-button, rotary encoders, nine illuminated buttons and a three digit white LED display for indicating track number.

The controller can be connected to a computer, using it's own built in 10/100 Ethernet interface, or to other Eclipse units via internal expansion port. It can be physically connected with other Eclipse units using Eclipse Joiner Kit.

Eclipse PX is functionally identical to the Nuage Panner listed below and can be used to directly control surround mixing in Steinberg Nuendo and other applications.



With it's own custom software plug-in for Steinberg Nuendo, Eclipse PX provides precise control of all automatable surround automation parameters.

Controls include real time control and automation of Joystick X, Y, Global Divergence, Auto Orbit, Front Divergence, Rear Divergence, Center Distribution, Front-Rear Divergence, LFE Level, Manual Orbit and more.

Software developers can take advantage of the Eclipse PX as a stand alone unit or combine it with other Eclipse components to make a specialized controller for your specific needs.



## Nuage Surround Panner

*Surround Panning Controller for Yamaha & Steinberg Nuage Console*



Nuage Surround Panner combines a high-quality, three axis joystick with five touch-sensitive, push-button, rotary encoders, nine illuminated buttons and a three digit LED display, for indicating track number.

The controller can be easily connected, using it's own built in 10/100 ethernet interface.

With it's custom software plug-in for Steinberg Nuendo (Mac and Windows), the panner is specifically designed to mount directly into the Yamaha/Steinberg Nuage Console expansion chassis. (NWS500-SM)

Controls include real time control and automation of Joystick X, Y, Z, Global Divergence, Auto Orbit, Front Divergence, Rear Divergence, Center Distribution, Front-Rear Divergence, LFE Level, Manual Orbit and more.



## *Eclipse MXL Midnight* 8 Fader Controller/Expander w/LCD Buttons

Eclipse MXL™ is our newest professional fader controller, featuring high-quality, touch-sensitive, 100mm motorized faders and high-resolution backlit LCD display buttons.

It displays channel labels, color coded track arming status and other mission critical information.

The LCD buttons can display 64 colors and up to 32 characters of text and graphics. Optional USB, 10/100 Ethernet, RS-232 and RS-422 interface cards provide connections to host systems.

Compatible with Peavey MediaMatrix NWare software, L-S-B Virtual Studio Manager, Mosart, Sony's ELC Enhanced Live Production Control System and other applications.



11.5 in  
29.21 cm



Weight  
5.75 lbs  
2.62 kg



3.25 in  
8.255 cm

10 in  
25.4 cm

Eclipse Products can be combined in various configurations to provide a custom tailored surface for your specific needs. Units are physically joined using the Eclipse Joiner. (See example of joined Eclipse Midnight controllers below)

## *Eclipse Joiner - Midnight* (sold separately)



*Eclipse 24,  
joined with two  
Eclipse MXL units using two  
Eclipse Joiners*



*Eclipse CX Joined to Eclipse MX with Eclipse Joiner*



## Eclipse MX Midnight

8 Channel Fader Expander/Controller

Eclipse MX Midnight lets you perform real-time automated audio mixing in Soundtrack Pro, Logic Pro and most audio software.

It's a professional-quality, motorized fader control surface, with controls placed conveniently at your fingertips.

Eclipse MX features 8 touch sensitive, motorized faders, 32 switches and built in MIDI I/O. It connects to other Eclipse controllers via expansion port, using a supplied modular cable and communicates with your computer via a single interface card in Eclipse CX, SX or Eclipse 24.



For stand alone use or custom applications, Eclipse MX SA Midnight (Stand Alone Version) can be

11.5 in  
29.21 cm

used with optional Compact Ethernet, USB, RS-232 and RS-422 Interface cards.

Direct support for the Eclipse MX Midnight, with 920444-4 Ethernet Interface is available in Peavey MediaMatrix NWare and QSC Audio's Q-SYS.

Weight  
5.75 lbs  
2.62 kg



10 in  
25.4 cm

It can be physically joined with other Eclipse Midnight products using Eclipse Joiner Kit.

## Eclipse Software for Mac OSX

New Mapping Software for Mac OSX (Mountain Lion Compatible) allows Ethernet equipped Eclipse Series units to control Final Cut Pro, Color, Motion, Soundtrack Pro and other professional applications.

It provides context-sensitive Jog/Shuttle and user control of text displays and user mapping of controls in any software.

Our smart software driver knows which application is in the foreground and switches automatically for seamless control.





# Eclipse 24 Midnight

## Tactile Command Palette



Eclipse 24 Midnight is a mid-sized desktop controller with 24, next-generation, hi-res, RGB, remotely-relegendable 64 x 32 LCD keyswitches, 10 bank buttons, and 17 additional function and navigation switches.

The hi-res LCD keyswitches can display text (up to 40 characters) and graphics using built in command driven serial interfaces. Software controls the interface, display and backlighting (64 colors). Data only needs to be transmitted when a change is made to the display or background colors.

Eclipse 24 Midnight can be used as a stand alone controller, or it can be physically connected with other Eclipse Midnight Units. Interfaces include built in Ethernet and USB along with optional serial connections.

Eclipse 24 Midnight provides instant playback and control for broadcast automation, post production and other applications.



11.5 in  
29.21 cm



3.25 in  
8.255 cm

10 in  
25.4 cm

Weight  
5.35 lbs  
2.42 kg

JLCooper has the most complete line of standard products using remotely relegendable LCD keyswitches.

## SHARPSHOT - ULTRA-COMPACT COMMAND PALETTE

SharpShot™ is an ultra-compact desktop controller with eight, hi-res, remotely-relegendable 64 x 32 LCD keyswitches. They display text (up to 40 characters) and graphics using built in command driven serial interfaces. They integrate a graphical LCD with RGB backlighting and are capable of displaying up to 64 colors. Software controls the interface, display and backlighting. Data only needs to be transmitted when a change is made.



SharpShot provides instant audio or video playback and control for broadcast automation and other specialized uses. It can alert users to changing operating conditions by showing different colors, text and icons.

This enables a customized user interface that reacts instinctively to the task at hand. It helps users work faster and reduces the possibility of human error in critical applications. It's unique, compact shape consumes minimal space.

Other uses include control systems, automation systems, call centers, financial services, telecommunications, industrial controls, and automation systems.

Requires compact Interface card for USB, Ethernet, RS-232, RS-422 connection.



2.25 in  
5.7 cm

Weight - 1.25 lbs  
.57 kg

Length  
6.25 in  
15.88 cm

2.88 in  
7.3 cm



## Unequalled Interfacing Flexibility

As you can see, JLCoooper control products have a variety of interface types to work in many different applications.

Some Eclipse Series expansion units can interconnect using our internal bus with modular cable.

Built in MIDI ports are included on some models. Additional interface card slots provide you with the ability to adapt the controller to your requirements. Plug-in interface cards provide additional functionality with various applications that include direct support.

Contact your JLCoooper representative to discuss interfacing requirements for your specific applications or check out our on-line product compatibility guide.

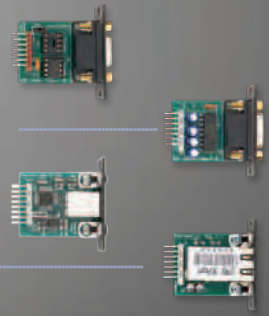
## Compact Interface Cards

920444-1 - Compact RS-422 Interface Card - This provides direct 9-Pin control of professional VTRs, DDRs and servers, or it can be used to interface your controller directly to a RS-422 serial port on your computer.

920444-2 - Compact RS-232 Interface Card - Lets your controller interface with computers, messaging systems or any device that can be controlled via RS-232.

920444-3 - Compact USB Interface Card - This compact interface card option allows convenient connection to computers via USB.

920444-4 - Compact Ethernet Interface Card - Provides a direct 10/100 Ethernet connection for controlling network based applications or situations where a long cable run is required. Simplifies connection to your computer or LAN, and keeps cable clutter to a minimum.



## Standard Interface Cards

### 920394 Ethernet Interface Card

This interface card provides a direct 10/100 Ethernet connection for controlling network based applications or situations where a long cable run is required. It simplifies the connection to your computer or LAN, and keeps the clutter of cables in your facility to a minimum. Use with Eclipse software for Mac OSX to control virtually any application.

### 920467 USB Interface Card

This interface card allows connection to computers via USB. It simplifies the connection to your computer. Use with Eclipse software for Mac OSX to adapt the controller to work efficiently with virtually any application. Software keysets are included for popular audio and video programs.

### 920466 RS-232 Interface Card

The addition of this plug in card lets you configure your Eclipse or other JLC product for direct computer control. Simply plug the interface card into one of the slots in an Eclipse and you're in control. Baud rate is adjustable.

### 920465 RS-422 Interface Card

This card provides direct 9-Pin control of professional VTRs and DDRs, or it can be used to interface directly to a RS-422 serial port on your computer. Commands from a host computer can be directed to the individual machines.

### 920355 GPI Interface Card

This plug in card for the Eclipse interfaces to any device that needs a General Purpose Interface (switch closure) connection. It provides eight GPI Outputs and eight GPI inputs.

Check with JLCoooper to see if the GPI Interface is supported in your application.



# SloMo Elite - Video Server Controller



ELITE-SM-JLLSN w/JLC Jog/Shuttle & Dual Color LED Relegendable Keyswitches

SloMo Elite is a new Sports/SloMo control surface, expressly made for software developers and OEMs.

Its advanced design provides an incredible number of configuration options, without any of the costs normally associated with developing hardware, by allowing us to create custom configurations using standard parts.

It's packed with every possible feature we could think of, plus future upgrade capabilities. It closely integrates with your proprietary software, creating an elegant and complete control package. Virtually ever aspect of the product can be customized to your precise needs.

This is a completely new controller, built for speed and designed to withstand the rigors of daily use in broadcast, sports, instant replay, scoreboard and other applications. It includes built in USB and Ethernet Interfaces.

Contact JLCopper today for additional configuration information, customization options, protocol, development documents and other details.

Weight  
7.35 lbs  
3.34 kg



11.5"  
29.21 cm



3.25"  
8.255 cm

13.5" - 34.29 cm



# SloMo Elite - Video Server Controller



ELITE-SM-S66SN w/Sony Jog/Shuttle & NKK Remotely Relegendable Keyswitches

## Options Include...

- Precise, High-Resolution, Professional Quality Components
- 4.5" x 2.5" LED Backlit White Graphic Display, 240 x 128 pixels (Optional Touch Screen)
- Jog/Shuttle Options; Sony VTR Style Jog/Shuttle, JLC Jog/Shuttle, JLC Tall Jog Only w/Rubber Cap, JLC Electro-Magnetic Jog/Shuttle with variable Stops (available soon)
- Standard T-Bar, Detented T-Bar, Touch Sensitive Motorized T-Bar
- Dual Color LED Relegendable or NKK LCD Remotely Relegendable Compact Hi-Res 64 x 32 Pixel, RGB Backlit Keyswitches (either group of 5 switches can be LED or LCD Type)
- USB 2.0 Full Speed - Drivers & Libraries for Windows and Mac
- USB Serial Port Emulation
- Both USB and 10/100 Ethernet Interface (Standard)
- Supports TCP (Client/Server) & UDP - Static or DHCP Configuration
- Custom finishing and silkscreen available for quantity orders
- Internal international switching power supply (Standard)
- IAP - Field Software Updates can be installed via USB or Ethernet

Weight  
7.35 lbs  
3.34 kg



11.5"  
29.21 cm



3.25"  
8.255 cm

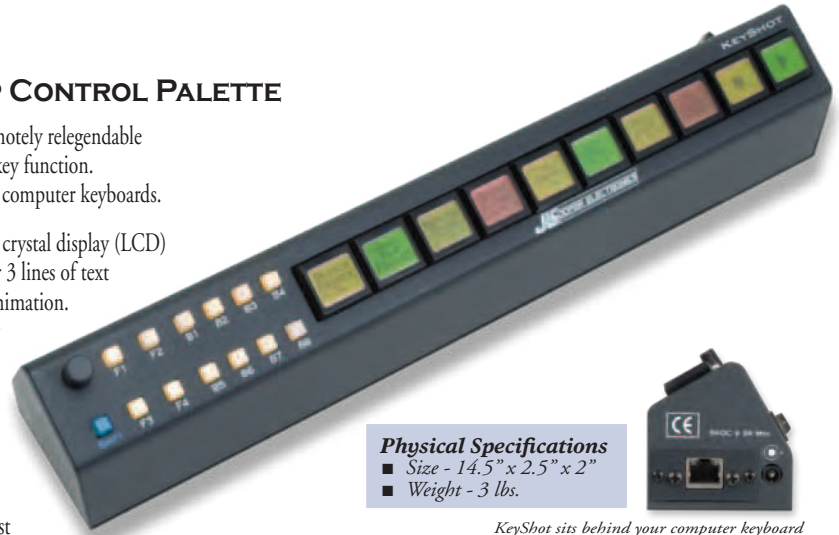
13.5" - 34.29 cm

## KEYSHOT - COMPACT DESKTOP CONTROL PALETTE

KeyShot™ is a new addition to our line of control products using remotely relegendable push-button switches which allow the user to instantly recognize the key function. It's unique, compact shape uses minimal space and it fits behind most computer keyboards.

KeyShot features 10 remotely relegendable, multi-color, backlit liquid crystal display (LCD) push-button switches. The LCDs can display 36 x 24 pixel bitmaps or 3 lines of text (6 characters per line), or a combination of text, graphic symbols or animation. They can alert users to changing operating conditions by showing any of 8 different colors. This enables a customized user interface that changes to suit the task at hand and helps users work faster and with fewer mistakes. Other controls include 13 lighted function keys and a rotary encoder. The KeyShot is capable of accepting Compact Ethernet, USB, RS-232 or RS-422 Interface Cards. (See Below)

It provides instant audio or video playback triggering in broadcast, post and other professional applications. Other uses include control systems, call centers, financial services, telecommunications, industrial controls, and automation systems.



### Physical Specifications

- Size - 14.5" x 2.5" x 2"
- Weight - 3 lbs.



*KeyShot sits behind your computer keyboard*



*New GPO port for added control flexibility*

## RACKSHOT - RACKMOUNT CONTROL PALETTE

RackShot™ provides the exact same control capabilities as our KeyShot in a convenient single space, 19" rack mount package. It connects via Compact RS-232, RS-422, USB or Ethernet to provide instant audio or video clip playback triggering in broadcast automation, post and other professional applications where relegendable push-button switches in a rack are useful.



### Physical Specifications

- Size - 19" x 3" x 1.75"
- Weight - 3 lbs.

### NEW - MACRO SOFTWARE FOR RACKSHOT, KEYSHOT & MCS-QUICKSHOT

A new "Macro Feature" allows users to define the behavior of all controls by means of a PC based editor. The controllers can be equipped with Ethernet, USB, RS-232 or RS-422 Compact Interfaces. Once programmed, the internal memory is non-volatile and the software is no longer required for use. This lets you completely customize the controller for use in any application.

With 10 LCD buttons and 8 bank buttons, the controllers provide a total of 80 virtual LCD buttons. Each may be individually programmed for On/Off message, color, and display, with latching or momentary operation. You can choose from 7 colors + backlight off, and colors may be selected separately for the ON and OFF states. A given button can be set to display 3 lines of 6 text characters, a large single alphanumeric letter/number, an icon selected from an internal set, or a user icon that you can define using the built in icon editor. There are 4 F-buttons and a Shift button, resulting in 8 virtual F-buttons, each of which may be individually programmed. Finally, there is a push-button programmable encoder.

Any number of buttons may be grouped together to act as a radio-button group. That is, when a given button within a group is caused to go into the ON state, it will have its screen/color go to the ON state, its ON message will be sent, and all other buttons within that group will go to the OFF state, and individual OFF messages, if desired, will be sent out.

Separate ON and OFF messages may be defined per key, between 0 and 31 bytes long. If an OFF message is not needed, the ON message may be up to 62 bytes long. Provision for auto insertion of a checksum is included.



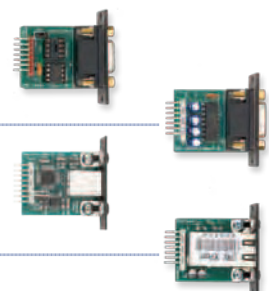
## COMPACT INTERFACE CARDS

920444-1 Compact RS-422 Interface Card - This card provides direct 9-Pin control of professional VTRs, DDRs and servers, or it can be used to interface your controller directly to a RS-422 serial port on your computer.

920444-2 Compact RS-232 Interface Card - This card lets your controller interface with computers, DVD players, Video Recorders, Messaging Systems or any device that can be controlled via RS-232.

920444-3 Compact USB Interface Card - This plug in card option for the KeyShot, Rackshot, MCS-3000XL and GangWay16 allows convenient connection to computers via USB.

920444-4 Compact Ethernet Interface Card - This interface card provides a direct 10/100 ethernet connection for controlling network based applications or situations where a long cable run is required. It simplifies the connection to your computer or LAN, and keeps the clutter of cables on your desktop to a minimum.





## sBOX8D - Desktop Version Remote Trigger Box for gBOX & eBOX

Connect the new sBOX to gBOX (GPO Trigger Box), or eBOX (Quad Serial/Ethernet/GPI Interface), as a simple, relegendable remote to trigger GPO events.

In addition, with eBOX, you can use sBOX to trigger the sending of user programmed serial or ethernet messages. sBOX features 8 LED backlit buttons, an illuminated bank switch that allows a single sBOX to control up to 24 GPO's.

Multiple sBOX units (up to 3) can provide dedicated buttons for up to 24 GPOs.



*The compact sBOX8D sits behind your computer keyboard.*

Weight  
1.2 lbs  
.544 kg



2.5" - 6.5 cm



8.5" - 21.59 cm

2.625"  
6.668 cm

## sBOX8R - Rack Version - Remote Trigger Box for gBOX & eBOX

Connect the new sBOX to gBOX (GPO Trigger Box), or eBOX (Quad Serial/Ethernet/GPI Interface), as a simple, relegendable remote to trigger GPO events. In addition, with eBOX, you can use sBOX to trigger the sending of user programmed serial or Ethernet messages. sBOX features 8 LED backlit buttons, an illuminated bank switch that allows a single sBOX to control up to 24 GPO's. Multiple sBOX units (up to 3) can be provide dedicated buttons for up to 24 GPOs.



*Combine eBOX and sBOX8R with optional JLC RackTray*



*Keyshot (previous page) sits conveniently behind your computer keyboard*



**Controls Most Professional VTRs, DDRs, Servers and Computer Based Systems including AJA KiPro, BlackMagic Hyperdeck, Doremi, Fast Forward Video Micron and Omega HD and Grass Valley Turbo**

# EDIT SUITE SERIES

*New Features for AJA Ki Pro and FFV Micron  
Lets you Browse Clips and View Clip Names*



#### ES-SloMo Features

- Compact Design
- Controls 4 Machines
- VF Timecode Display
- Numeric Keypad

#### Physical Specifications

- Size 10" x 10.25" x 3"
- Weight 6 Lbs.

## ES-SLOMo SP RS-422 UNIVERSAL INSTANT REPLAY CONTROLLER

ES-SloMo™ is a compact controller for News, Sports, QC, transfer, dubbing and other editing operations. It makes precise control of professional VTRs, DDRs and Video Servers quick and easy. It's a full featured 4-machine editor and universal Jog/Shuttle remote. It's compact design and low cost, make it the perfect addition to edit suites, remote trucks, sports facilities and other applications.

ES-SloMo features include professional transport buttons, SP (VTR Type) Jog/Shuttle mechanism for convenient picture search operations, a high-quality T-Bar for slomo and shuttle tape operation, an easy to read 2 x 16 VF display, a full size numeric keypad and fast access function keys. It provides Odetics seamless clip playback functions for use with popular video servers. GangWay16 integration allows individual control of up to 16 machines or server channels!



ES-SloMo J Side View



## ES-SLOMo J RS-422 UNIVERSAL INSTANT REPLAY CONTROLLER

ES-SloMo J RS-422™ is identical to the ES-SloMo SP version, but includes JLCooper's Custom, Optically-Encoded Jog Wheel with Shuttle Ring. It's perfect for News, Sports, Scoreboard, QC, transfer, dubbing and other editing operations. It's compact design and low cost, make it the perfect addition to edit suites, remote trucks and other applications.

#### ES-SloMo Features

- Assemble, Insert, Crash and Disable (Lock Out) Editing Modes
- Quickly store up to 1000 Cues or 400 In and Out Points with Varispeed
- Simultaneous Control of up to 4 VTRs, DDRs or Server Channels
- T-Bar Control for slow motion control sends Shuttle, Jog or Variable Play
- Dynamic SloMo replays accessed from the T-Bar, Jog or Variable Speed Play
- T-Bar Programmable - Min-Max, Preset Speeds, Active or Passive Modes
- Programmable Cueing Modes - Automatic Play All Cues Function
- Log Operation useful in QC Applications
- 16 Variable Replay Speeds
- EE/PB switching



• Integrated 10' quad snake/power cable minimizes desktop clutter.



ES-SloMo SP Side View

Weight  
4.9 lbs  
2.22 kg



## **SLOMo & GANGWAY TOGETHER = 16 CHANNEL SLOMo + GANG ROLL POWER**

GangWay16™ is a compact, easy-to-use, 16 port RS-422 Gang Roll Switcher and GPI Trigger Box. The front panel includes lighted buttons for clear indication as to the status of each machine. GangWay has 16 RS-422 ports on the rear panel and a rear mounted RS-422 control input.

ES-SloMo now interfaces directly with GangWay16 to provide simultaneous control up to sixteen RS-422 machines or server channels, using the GangWay16 as it's physical interface. GangWay's port assignments are remotely controlled and indicated on ES-SloMo. ES-SloMo and Gangway 16 combine to form the largest and most advanced control system we've ever created.

ES-SloMo and Gangway 16 are the perfect low cost alternative to overpriced control systems costing thousands more. See GangWay 16 on page 33 for more information.

- *Simultaneous Control of up to Sixteen VTRs, DDRs or Server Channels*
- *Remote Channel Enable/Disable*
- *Direct support for Odetics compatible video servers*
- *16 Variable Replay Speeds*
- *Mark In and Mark Out Keys to Quickly Store Cue Points*
- *Capacity to store 1000 Cue Points or 400 In and Out Points w/Varispeed*
- *Log Operation - Useful in QC Applications*



### **ES-SLOMo SPE**

#### **SLOMo CONTROL SURFACE WITH ETHERNET INTERFACE**

ES-SloMo SPE is made for computer-based Slow Motion software control. It's virtually identical to the ES-SloMo RS-422 Version, but with a built in Ethernet interface.

ES-SloMo SPE utilizes a professional VTR Style Jog/Shuttle Mechanism. It's compact design and low cost, make it the perfect addition to for sports, scoreboard, remote trucks and other applications.

Developers and OEMs can easily build complete direct support into your applications.

ES-SloMo SPE can be your perfect off-the-shelf control surface. Customized Versions Available.

**SloMo Control Surfaces**  
**with Ethernet**

### **ES-SLOMo JE**

#### **SLOMo CONTROL SURFACE WITH ETHERNET INTERFACE**

ES-SloMo Je is made for computer-based Slow Motion applications. It's virtually identical to the RS-422 Version, but with a built in Ethernet interface.



*ES-SloMo Ethernet Rear View*

ES-SloMo Je uses JLCopper's Custom, Optically-Encoded Jog Wheel and Concentric Shuttle Ring.

Developers and OEMs can easily build direct support into your applications. Use ES-SloMo Je as your front end controller.



### **ES-SLOMo SP USB**

#### **SLOMo CONTROL SURFACE WITH USB INTERFACE**

ES-SloMo SP USB is made for computer-based Slow Motion applications. It's virtually identical to the RS-422 Version, but with a built in, bus powered USB interface. ES-SloMo SP USB utilizes a professional VTR Style Jog/Shuttle Mechanism.

Its compact design and low cost, make it the perfect addition to for sports, scoreboard, remote trucks and other specialized applications.

Developers and OEMs can easily build complete direct support into your applications.

ES-SloMo SP USB can be your perfect off-the-shelf control surface. Customized Versions Available.

**SloMo Control Surfaces**  
**with USB**

### **ES-SLOMo J USB**

#### **SLOMo CONTROL SURFACE WITH USB INTERFACE**

ES-SloMo J USB is made for computer-based Slow Motion applications. It's virtually identical to the RS-422 Version, but with a built in USB interface. USB powered.



*ES-SloMo USB Rear View*

ES-SloMo J USB uses JLCopper's Custom, Optically-Encoded Jog Wheel and Concentric Shuttle Ring.

Developers and OEMs can easily build direct support into your applications. Use ES-SloMo J USB as your front end controller.



# ES-450 SP RS-422 - UNIVERSAL JOG/SHUTTLE REMOTE

The ES-450 SP™ - Universal Jog/Shuttle Remote makes operation of professional video recorders fast and easy.

Controls Most Professional VTRs and DDRs

The ES-450™ is a fully functional 9-Pin/P2 Universal Jog/Shuttle Remote Controller for VTRs or DDRs.

It's completely compatible with most professional machines including BVW, UVW, DSR, DVW, HVR, DVCAM and other 9-pin equipped VTRs, DDRs and servers from Sony, Panasonic, FFV, JVC, Doremi, Grass Valley, Harris and others.

The remote is designed for fast and easy editing. It incorporates a keyboard layout which minimizes key strokes, a VTR style Jog/Shuttle Wheel for convenient picture search operations, a back lit LCD Time Code display for easy and accurate editing and much more.

Functionality is at your fingertips with clearly labeled buttons and a natural-feeling key arrangement that helps you work more efficiently.

The ES-450's functions are laid out for fast and intuitive operation without having to tediously scroll through menus to get to often accessed features.

Fast access to Forward Play, Reverse Play, Rewind, Fast Forward, Still/Stop, Shuttle Select, Frame +, Frame-, Mark In, Mark Out and Eject are arranged in an array around the wheel in easy reach. Record controls include Crash/Full, Assemble, Insert Video, A1, A2, A3 and A4 modes.

A numeric keypad provides easy entry of "search to time" locate operations.

There's an alternative to large, costly and cumbersome remotes that consume valuable desk space. ES-450 is the first choice for professionals in control.

Audio Editing - The ES-450 employs an audio split function, which allows the audio edit in-point to be set differently from the video edit in-point. The ES-450 can effectively edit sound or music as well as it does video.



#### **ES-450 Physical Specifications**

- Size - 6.5" x 10.5" x 3.5"
- Weight - 4 Lbs.

#### **ES-450 Features**

- Professional Quality Compact Remote Control
- High-Quality, Tactile Transport Keys
- Function Keys Provide Direct Access to Frequently Used Editing Features Including Shuttle Select, Frame+, Frame-, Mark In, Mark Out, Eject & More
- Back-Lit LCD Time-Code Display
- RS-422/9-Pin Interface
- Numeric Keypad for Time Code Entry
- FFV mode for Omega and Micron
- Durable All Metal Construction



## ES-450 J RS-422 UNIVERSAL JOG/SHUTTLE REMOTE

ES-450 J RS-422™ is a fully functional 9-Pin/P2 Universal Jog/Shuttle Remote Controller for VTRs or DDRs. It's compatible with professional machines including most BVW, UVW, DSR, DVW, HVR, DVCAM and other 9-pin equipped VTRs, DDRs and servers from Sony, Panasonic, JVC, Doremi, Grass Valley, Harris, FFV and others.

It's designed for fast and easy editing. It's virtually identical to the ES-450 SP RS-422, but with a JLC Jog/Shuttle Mechanism for convenient picture search operations. Functionality is at your fingertips with clearly labeled buttons and a natural-feeling key arrangement that helps you work efficiently. There's an alternative to large, costly and cumbersome remotes that consume valuable desk space. ES-450 is the first choice for professionals in control.



## DUAL CHANNEL RS-422 CONTROLLERS

### ES-450 J2 RS-422 - DUAL CHANNEL JOG/SHUTTLE REMOTE

A new version of the proven ES-450 J that incorporates a Dual Channel RS-422 interface. It provides fast, precise control of 2 VTRs, DDRs or two channel servers. New FFV mode for Omega HD and Micron.

### ES-450 SP2 RS-422

#### DUAL CHANNEL JOG/SHUTTLE REMOTE

A new version of the proven ES-450 SP (with VTR Style Jog/Shuttle Mechanism) that incorporates a Dual Channel RS-422 interface. It provides fast, precise control of two VTRs, DDR's or servers.

#### ES-450 Physical Specifications

- Size - 6.5" x 10.5" x 3.5"
- Weight - 4 Lbs.



(ES-450 J2 Rear Panel)



(ES-450 J2 Side View)

## FOUR CHANNEL RS-422 CONTROLLERS

### ES-450 J4 RS-422 - FOUR CHANNEL JOG/SHUTTLE REMOTE

A new version of the proven ES-450 J that incorporates a Four Channel RS-422 interface. It provides fast, precise control of four VTRs, DDRs or server channels, including GV Turbo iDDR.

### ES-450 SP4 RS-422

#### FOUR CHANNEL JOG/SHUTTLE REMOTE

A new version of the proven ES-450 SP (with VTR Style Jog/Shuttle Mechanism) that incorporates a Four Channel RS-422 interface.

It provides fast, precise control of up to 4 VTRs, DDR's or server channels.



(ES-450 J4 Rear Panel)



• Integrated quad snake/power cable minimizes desktop clutter.

# ETHERNET CONTROLLERS



## ES-450 Physical Specifications

- Size - 6.5" x 10.5" x 3.5"
- Weight - 4 Lbs.

## ES-450 Features

- Professional Quality Compact Remote Control
- High-Quality, Tactile Transport Keys
- Back-Lit LCD Time-Code Display
- Numeric Keypad for Time Code Entry
- Durable All Metal Construction

## ES-450 JE

### ETHERNET JOG/SHUTTLE REMOTE

ES-450 JE™ is a new version of the ES-450 featuring the JLCopper Jog/Shuttle mechanism. A 10/100 Ethernet Interface provides long distance control over LAN, WAN or the internet. It interfaces directly with Doremi Labs Video Servers and Disk Recorders, or use it with eBOX (listed on page 34) to remotely control serial equipped RS-422 servers or RS-232 devices over Ethernet.

## ES-450 SPe

### ETHERNET JOG/SHUTTLE REMOTE

ES-450 SPe™ is a new version of the ES-450 featuring the JLCopper Jog/Shuttle mechanism. A 10/100 Ethernet Interface provides long distance control over LAN, WAN or the internet. It interfaces directly with Doremi Labs Video Servers and Disk Recorders, or use it with eBOX (listed on page 34) to remotely control serial equipped RS-422 servers or RS-232 devices over Ethernet.



(ES-450 Je Rear Panel)



(ES-450 Je Side View)

## COMBINE ES-450 ETHERNET CONTROLLERS WITH EBOX

### QUAD SERIAL / ETHERNET / GPI INTERFACE



(eBOX Rear Panel)

A new feature for the ES-450 Je or SP controllers allows them to connect via ethernet to an eBOX. The Ethernet connection can be over LAN, WAN, or even over the internet for long distance control. Works with your existing standard wiring.

eBOX provides four RS-422 or RS-232 connections to serial devices. This facilitates easy long distance control of up to 4 serial VTRs, DDRs or servers.

Read more about the versatile eBOX on pages 30-31.



# EDIT SUITE SERIES MOTORIZED FADER CONTROLLERS

## ES-4/100 MOTORIZED FADER CONTROLLER

ES-4/100™ and ES-8/100™ are Edit Suite Series compact automation controllers.

Audio mixing has never been this fast and easy. The ES-4/100 features four 100mm touch-sensitive, motorized faders, 16 channel switches, 4 function keys and bank shift buttons for control of Select, Solo, Mute and other functions.



It's easy to refine and perfect your mix with the right tool for the job. The ES-4/100 is available in RS-232, RS-422, USB and MIDI versions.



(ES-4/100 Side View)

### ***ES-4/100 Physical Specifications***

- Size - 6.5" x 10.5" x 3"
- Weight - 4 Lbs.



## ES-8/100 MOTORIZED FADER CONTROLLER

ES-8/100 features 8 touch-sensitive motorized faders, 32 channel switches, 4 function keys and bank buttons. The ES-8/100 is available in RS-232, RS-422, USB and MIDI versions.

New Direct Support in Peavey MediaMation nWare software for the ES-8/100 RS-422 - controls NION Digital Signal Processors.



(ES-8/100 Side View)

### ***ES-8/100 Physical Specifications***

- Size - 10.75" x 10.5" x 3"
- Weight - 6 Lbs.



# ES-SLOMo AND GANGWAY 16 TOGETHER = 16 CHANNEL SLOMo + GANG ROLL POWER



GangWay16 Front Panel



GangWay16 Rear Panel Shown with  
Optional 920444-4 Ethernet Interface



**Now Controls Most Professional VTRs,  
DDRs, Servers and Computer Based  
Systems - Up to Sixteen Channels!**

ES-SloMo™ is the compact controller for News, Sports, QC, transfer, dubbing, scoreboard and other editing operations. It makes precise control of professional VTRs, DDRs and Video Servers quick and easy. It's a full featured 4-machine editor and universal Jog/Shuttle remote. It's sleek design and low cost, make it the perfect addition to edit suites, remote trucks, sports facilities and other applications.

The ES-SloMo features professional transport buttons, VTR style Jog/Shuttle mechanism, high-quality T-Bar for slow motion and shuttle operations, an easy-to-read 2 x 16 VF display, a full size numeric keypad and fast access function keys. It provides Odetics seamless clip playout functions for use with popular video servers.

GangWay16™ is a compact, easy-to-use, 16 port RS-422 Gang Roll Switcher and GPI Trigger Box.

The front panel includes lighted buttons for clear indication as to the status of each machine. A front mounted RS-422 port provides a convenient connection for a jog/shuttle remote or other device. GangWay has 16 RS-422 ports on the rear panel and a rear mounted RS-422 control input.

ES-SloMo now interfaces directly with GangWay16 to provide simultaneous control up to sixteen RS-422 machines or server channels, using the GangWay16 as the machine interface. GangWay's port assignments are remotely controlled and indicated on ES-SloMo.

ES-SloMo and Gangway 16 combine to form the largest and most advanced control system we've ever created.

ES-SloMo and Gangway 16 are the perfect low cost alternative to overpriced control systems costing thousands more. Contact us today for more information or the name of your nearest dealer.

## GangWay 16 & ES-SloMo Feature

- Simultaneous Control of up to Sixteen VTRs, DDRs or Server Channels
- Controls a Wide Range of VTRs, DDRs and Video Servers
- Direct support for Odetics compatible video servers
- Direct support for Doremi Video Servers
- Dynamic Slow Motion Replays, Directly Accessed from Integrated T-Bar Mechanism using Shuttle, Jog or Variable Speed Play
- Programmable T-Bar Behavior: Min to Max, -Max to +Max,  $\pm 5\%$ ,  $\pm 10\%$
- 16 Variable Replay Speeds
- Mark In and Mark Out Keys to Quickly Store Cue Points
- Capacity to store 1000 Cue Points or 400 In and Out Points w/Varispeed
- Assemble, Insert, Crash and Disable (Lock Out) Editing Modes
- Programmable Cueing Modes - Automatic Play All Cues Function
- Log Operation - Useful in QC Applications
- Transfer Cues to/from Another ES-SloMo or Computer for Backup/Editing
- Ability to Import/Export Cues from/to Ash Vale SM-2a
- EE/PB Switching
- Global Record Lock Feature
- Two User Assignable Buttons
- Integrated 10' (3m) Detachable, Quad Snake/Power Cable, with Recessed Connector to Minimize Desktop Footprint and Cable Clutter

**JLC COOPER ELECTRONICS**

WWW.JLCOOPER.COM



# MCS5 USB - Media Control Station

## New! with Relegendable LCD Button Labels

MCS5 is our newest desktop controller. It provides professional transport buttons, a precision optically encoded jog wheel, assignable function keys with live LCD labels (Key Function and label change on-the-fly for different editing operations).

You can create and customize banks of hot keys for your specific needs, including built-in/pre-named commands for popular applications.

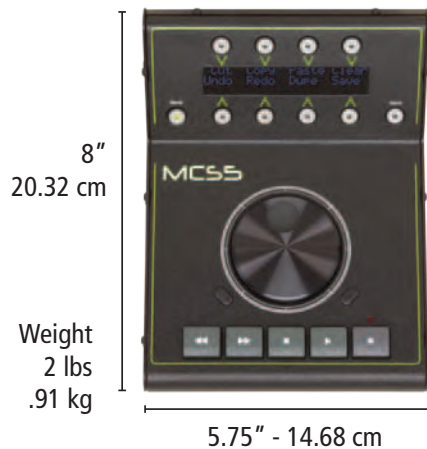
Programmable messages, including standard key command combinations, MIDI messages, mouse clicks and others. These can be assigned to any key and named.

The end result is that you can make a custom arrangement of controls to best suit your purpose, and you will always know what function you are going to get when you press a key.

Arrange editing functions into different banks, to logically group frequently used commands. For example, have one bank for ingest, a bank for tracking, a bank for editing, etc.) Raised display for easy viewing.

Use and customize supplied keysets for advanced control of applications including Final Cut Pro X, iMovie, Premiere Pro, Pro Tools, Nuendo and others, or make your own keyset for any program.

JLCooper controllers let you work faster. They provide speed, ease-of-use and tactile assurance that's missing when you use a mouse and keyboard for editing. Professionals can depend on JLC control products to provide reliable service that far outlasts any alternatives.



# MCS3-Media Control Station<sup>3</sup>

Media Control Station<sup>3</sup> is a central component of our MCS-Pro Series.

It features professional transport buttons for Record, Play, Stop, Fast Forward and Rewind. It has 18 physical buttons for a variety of editing functions and the V/Stick Navigation Control.

A precision, optically encoded jog wheel with a concentric shuttle ring lets you control audio or video effortlessly and with frame accuracy. MCS3 is available in a number of different versions, as listed below and on the next page.

## General MCS<sup>3</sup> Features

- Provides Remote Transport Control
- Balanced, Optical Jog Wheel with Shuttle Ring
- Permits Remote Track Arming
- RTZ and Shuttle Back at Play Speed
- Durable All Metal Construction
- Professional Remote Control for VTRs, MIDI, Audio, Video and Multimedia Software
- Available Models (Specify When Ordering)
  - MCS<sup>3</sup> USB w/ Software for Windows or Mac
  - MCS<sup>3</sup> SP USB w/ Software for Mac
  - MCS<sup>3</sup> RS-422/9-Pin for VTR Control
  - MCS<sup>3</sup> SP RS-422/9-Pin w/SP Jog/Shuttle
  - MCS<sup>3</sup> RS-232 with Software for Windows
  - MCS<sup>3</sup> MIDI with MIDI Machine Control



MCS3 Side View

## MCS<sup>3</sup> USB Version

Controls All Macintosh and Windows Applications

Media Control Station<sup>3</sup> USB version features professional transport buttons, a precision optically encoded jog wheel with a concentric shuttle ring and 18 function keys.

MCS<sup>3</sup> USB software supports Mac OSX, Windows 98, and Windows 7, 32 and 64 bit versions. It lets you use and customize supplied keysets for advanced control of applications including Final Cut Pro, iMovie, Premiere Pro, Pro Tools, Nuendo, DP5, Vegas Video, Virtual VTR and others. New direct support in Dalet One Cut Editor!

JLCooper controllers let you work faster. They provide the ease-of-use and tactile elegance that's missing from "software only" user interfaces. Professionals can depend on JLCooper control products to provide reliable service that far outlasts plastic alternatives.

MCS<sup>3</sup> works with virtually any software program.



**New updates for Mac  
OSX and Windows 7  
New Direct Support in  
Dalet One Cut Editor**

**MCS<sup>3</sup> Physical Specifications**  
■ Size - 6.5" x 7" x 1.25"  
■ Weight - 5 Lbs.

"The addition of JKL shuttle control, a speed slider, key command sequences, and multiple keysets per application, make the MCS3 the controller of choice for professionals."

"MCS3™ V2 software for Windows is included with USB and RS-232 versions. It lets you use and create keyset (templates) for all of your favorite audio and video editing applications and more"



MCS<sup>3</sup> USB Universal Software for Macintosh OSX



MCS<sup>3</sup> USB and MCS<sup>3</sup> RS-232 Software for Windows

## MCS<sup>3</sup> RS-232 Version

Controls Windows Applications

Media Control Station<sup>3</sup> RS-232 features professional transport buttons, a precision optically encoded jog wheel with a concentric shuttle ring and 18 function keys. Supplied software is compatible with Windows XP and Windows 7. It can be used with any editing software program. MCS<sup>3</sup> works with Premiere Pro, Cakewalk Pro, MPEG Edit Studio and other systems.

## MCS<sup>3</sup> MIDI/MMC Version

Controls Audio Hard Disk Recorders

Media Control Station<sup>3</sup> MIDI/MMC version sends MIDI Machine Control messages for controlling compatible hard disk recorders and computer based editing systems. Use it with recorders from Alesis, Akai, Mackie, Roland, Tascam and others. It can be coupled with FaderMaster Pro, FM 4/100 or to form a compact custom console.



*The MCS-Pro Series provides a number of custom configuration options for improved control of computer-based editing systems, VTRs and DDRs.*



## MCS3 SP USB Version

### ***MCS3 SP USB™ – with VTR Style Jog/Shuttle Mechanism***

Media Control Station<sup>3</sup> SP USB™ features professional transport buttons, a VTR Style Jog/Shuttle Mechanism and 18 function keys. MCS3 SP USB is the first Mac compatible USB controller with VTR style Jog/Shuttle and the best way for classic video editors to work with a familiar jog wheel on the Mac.

Supplied software lets you use and customize keysets for advanced control of compatible applications including Final Cut Pro X, DP8, Virtual VTR and others.



(MCS3 SP Side View)

**MCS<sup>3</sup> Physical Specifications**  
■ Size - 6.5" x 7" x 2.75"  
■ Weight - 5 Lbs.

## MCS3 SP RS-422/9-Pin Version

### ***MCS3 SP™ – with VTR Style Jog/Shuttle Mechanism***

Features the familiar push-push jog/shuttle controller. Push wheel once for Jog mode. Push wheel again for shuttle mode. In shuttle mode, it features a detent "click" when stopped.

Available in a RS-422/9-Pin version for controlling professional P2 compatible VTRs and disk based VTR emulators.

**MCS<sup>3</sup> Physical Specifications**  
■ Size - 6.5" x 7" x 2.75"  
■ Weight - 5 Lbs.



## MCS<sup>3</sup> RS-422/9-Pin Version

### ***MCS3 RS-232™ – with JLC Cooper Jog/Shuttle Mechanism***

Media Control Station<sup>3</sup> RS-422/9Pin version features professional transport buttons, JLC's precision optically encoded jog wheel, with a concentric shuttle ring and 18 function keys.

It's a 9-Pin/P2 compatible universal VTRor DDR jog/shuttle remote with Sony BVU 75 emulation.



MCS3 Side View

**MCS<sup>3</sup> Physical Specifications**  
■ Size - 6.5" x 7" x 1.25"  
■ Weight - 5 Lbs.



## FaderMaster Professional - Programmable MIDI Automation Controller

FaderMaster Professional™ is perfect for the audio or video professional involved with automation or digital audio recording. You can easily control, mix and edit with MIDI sequencers, hard disk recorders, MIDI-controlled mixers, synths, samplers, signal processors and computer based video editing systems. audio

### Professional Automated Mixdown

FaderMaster Pro – MIDI Automation Controller provides the hands-on, tactile control you've been missing from your system. It features high-quality 100mm long-throw faders. These smooth tracking faders give you precision control of your audio mix.



*New Software for Mac OS X*

FaderMaster Pro eliminates the aggravation encountered when using a keyboard or mouse to tediously mix or edit the volume of multiple tracks, just one-at-a-time, and it is fully programmable, for volume, panning, EQ, effects, and other parameters.

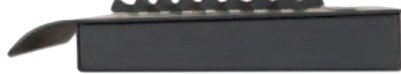
If eight faders and buttons aren't enough, multiple FM Pro units can be linked to form a larger console.

### FaderMaster Professional Features

- Eight Programmable High-Quality 100mm Faders
- Eight Programmable MIDI Buttons
- 1/4" Programmable Footswitch & Foot Pedal Inputs
- Internal Grouping, Scaling and End Point Adjustments
- More than 50 Factory Presets
- All Metal Construction
- FMPro Software for Mac OS X
- 12.25" x 6.75" x 1.5"
- Weight - 7 lbs.

FaderMaster Pro has 20 programmable banks for storing your own setups, plus 50 Factory Preset banks for remotely controlling classic synthesizers.

*FaderMaster Pro Side View*



*FaderMaster Pro Rear View*



## FaderMaster 4/100 - Automation Controller with Motorized Faders

FaderMaster 4/100 is our compact, MCS-Pro Series Automation Controller. It features 4-100mm touch-sensitive, motorized faders, bank shift buttons and function keys. It's available in MIDI, RS-232, RS-422 and USB versions.

The FM 4/100 can be used as a stand-alone device or it may be physically coupled with the MCS³SP for use with computer-based editing software including Apple Logic Pro, Digidesign Pro Tools, Snell, Mosart Media Lab and others. The MIDI version emulates the MCS-3000x and can be used with most MIDI and audio software programs.

### FaderMaster 4/100 Features

- Controls MIDI, Audio, Video and Multimedia Software
- Select, Solo, Mute and Other Functions
- Durable All Metal Construction



*FaderMaster 4/100 Side View*

- Available Models  
 (Specify When Ordering)  
 Fadermaster 4/100 MIDI  
 Fadermaster 4/100 RS-232  
 Fadermaster 4/100 RS-422  
 Fadermaster 4/100 USB

### FM 4/100 Physical Specifications

- Size - 6.5" x 8.5" x 3"
- Weight - 5 Lbs.



*FaderMaster 4/100 USB Universal Software for Macintosh OS X*



# MCS2 Media Control Station<sup>2</sup>

Media Control Station<sup>2</sup> is the ultimate compact remote. It features large buttons for Record, Play, Stop, Fast Forward, Rewind and other editing functions. A custom precision optically encoded jog/shuttle wheel, equipped to handle both jog and shuttle functions, lets you effortlessly edit and perfect your project with frame accuracy.

Four interface versions are available. New USB and RS-232 versions for controlling computer-based software programs, a 9-Pin/RS-422 compatible version for professional video tape recorders and video editing systems, and a MIDI version that makes a great low-cost remote for audio hard disk recorders and most MIDI compatible audio applications.



## MCS<sup>2</sup> Features

- Professional Quality Compact Controller
- Provides Remote Transport Control
- Remotely Controls up to 20 Functions
- Durable All Metal Construction
- Our lowest cost controller
- 4 Models (Specify When Ordering)
  - MCS<sup>2</sup> USB for OSX and Windows
  - MCS<sup>2</sup> RS-232 for Windows
  - MCS<sup>2</sup> 9-Pin for VTR AND DDR Control
  - MCS<sup>2</sup> MIDI with MIDI Machine Control

## MCS<sup>2</sup> Physical Specifications

- Size - 8.5" x 3.25" x 1.5"
- Weight - 2 lbs.

## New MCS<sup>2</sup> USB and RS-232 Versions

MCS<sup>2</sup> USB and RS-232 versions feature professional transport buttons, a precision, optically encoded jog wheel and jog/shuttle control button. Shift and Option modifier keys let the MCS<sup>2</sup> send more than 20 different control messages. The USB version includes software for OSX Mountain Lion and Windows. MCS<sup>2</sup> RS-232 is compatible with Windows XP and later. They can be used with any editing software programs.



## MCS<sup>2</sup> MIDI/MMC Version

Media Control Station<sup>2</sup> MIDI/MMC features transport buttons, a precision optically encoded jog wheel and jog/shuttle control button. Shift and Option modifier keys let the MCS<sup>2</sup> send more than 20 different MIDI Machine Control (and General Purpose Controller) messages.



MCS<sup>2</sup> sends MMC messages for controlling a variety of compatible hard disk recorders and computer based editing systems. Use it with recorders from Akai, Alesis, Mackie, Roland, Tascam and others.

## MCS<sup>2</sup> RS-422/9-Pin Version

Media Control Station<sup>2</sup> 9Pin features professional transport buttons, a precision optically encoded jog wheel and jog/shuttle control button. Shift and Option modifier keys let the MCS<sup>2</sup> send more than 20 different control messages including RTZ, Video, Insert, Reverse Shuttle at Play Speed, Audio Track Arming and more. MCS<sup>2</sup> 9Pin is our compact, low-cost RS-422/P2 compatible universal VTR or DDR jog/shuttle remote.

## EBOX - QUAD SERIAL / ETHERNET / GPI INTERFACE



eBOX is a 10/100BASE-T (Ethernet) to Quad RS-232/422 (9-Pin) and GPI hardware interface.

It acts as a portal for controlling devices across your facility or across the world.

It eliminates information bottlenecks and overcomes distance limitations typically inherent to serial communication.

It simplifies long distance cabling by using IP addressable, point-to-point architecture to send control messages over existing 10/100 BASE-T wiring.

eBOX features four serial connectors, activity LED's, 24 GPI Inputs and 24 GPI Outputs as a standard feature (General Purpose Interface - facilitates switch closure control).

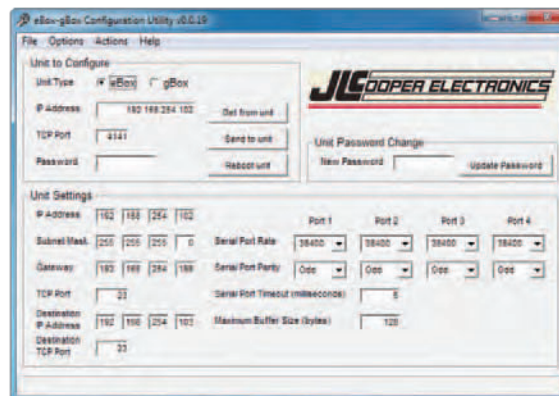
It's ideal for LAN, WAN and Internet control of VTRs, DDRs, switchers, computer based editing systems, cameras, projectors and other devices that use RS-232/422 (9-Pin) and GPI.

Commands from a host NLE, Browser or RS-422 switcher/controller are directed to individual devices on the network.

This allows broadcast or networked facilities to control distanced machine rooms from a facility's central server.

eBOX is ideal for broadcast television, streaming media networks, multi-room

JLCooper's Developer Documentation provides comprehensive tools for software developers to link Visual Basic, C++, HTML or embedded devices for direct control of any device connected to any eBOX.



*eBOX Internal Web Configuration Page*

editing facilities, news production or in any audio/video/multimedia studio where remote hosts need to control devices over long distances or via the Web.

A new feature allows eBOX to be controlled by ES-450 Je and ES-450 SPe controllers. See page 28 for more info.

Host to eBOX, eBOX to host and eBOX to eBOX communication is possible. An unlimited number of units can be addressed.

eBox converts 4 serial ports and 24 GPI (General Purpose Interface) inputs and 24 GPI outputs to 100/10baseT Ethernet.

The serial ports can be configured in the field to appear as EIA/TIA RS-232E and CCITT V.28 or as EIA/TIA RS-422A, RS-423 and Federal Standards 1020 & 1030 ports. Additionally, the port direction can independently be configured as DTE or DCE.

### eBOX Features

- Four 9-Pin D Sub Serial Connectors
- 1/2 of a single 19" Rack Space
- Two 24Pin D Sub GPI Connectors
- RJ-45 Ethernet Connector
- LAN, WAN or Internet Control
- Dimensions 8.5" x 4.7" x 1.75"
- Weight 3 lbs.



eBox communicates over standard TCP/IP which allows it to be used with any host computer. With TCP/IP, traffic can be routed over internal LANs, wireless LANs, MANs, WANs and even over the Internet.

Configuration is accomplished through a web page server built into the eBox. Items such as port speed, parity, IP address, remote IP address and TCP port are set using a standard web browser. Settings are stored in nonvolatile memory.

Typically, the eBox functions as a server, passively waiting for client devices to connect to it. The device can be a computer or another eBox configured as a client. When the eBox is configured as a client, it will actively attempt to connect to the server eBox. Once accomplished, eBox will then pass data received in the serial or GPI ports to the remote eBox. If there is no data received, eBox will not send any TCP packets.

### Ethernet

This eBox port is just like an Ethernet port on a computer, and can be connected to a hub, switch or router.

eBox supports IEEE 802.3u clause 28 Auto-Negotiation which automatically senses the Ethernet port speed & duplex operation and chooses the highest performance settings. Front panel LEDs indicate various operating conditions of the Ethernet connection.

### Serial

The four serial ports along the top of the rear panel are 9 pin D-Sub connectors which can be configured for RS-232C or RS-422A operation.

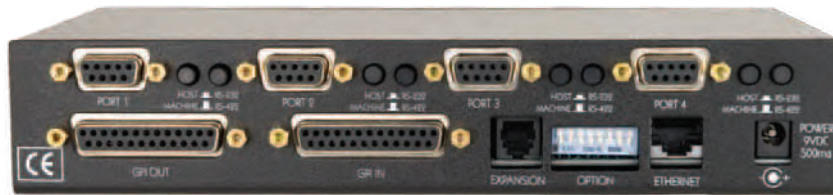
In RS-422 mode, eBox direction can be configured to appear as a Controller or a Device. In RS-232 mode, the eBox appears as a DCE or DTE.

### GPI

The GPI ports on the rear of the eBox are 25 pin D-sub connectors. The GPI In connector has 24 TTL/CMOS compatible inputs with internal pull-ups to +5 volts.

The GPI Out connector has 24 TTL/CMOS compatible outputs. On both connectors, pin 1 is the ground reference and pins 2-25 are the GPI signals.

When eBoxes connected together in a client/server manner establish a connection, both client and server will send the state of its GPI In ports to each other so it can be shown on the GPI Output port on the remote eBox.



eBOX Rear Panel

After that, only changes to a GPI In port will cause an eBox to send a GPI message to the remote eBox. A packet/keep alive message is sent every 5 seconds.

### GPI to Serial Converter

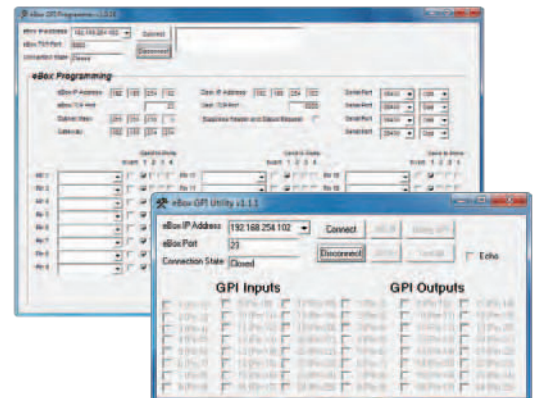
eBox can act as a GPI to Serial converter. Each of the 24 GPI Inputs can be assigned to send P2 or Odetics Commands. Assignments are retained in non-volatile memory. Basic tally back information is provided via GPI outputs.

### GPI/Serial to Ethernet Converter

eBox can also work as an interface for GPI or serial to Doremi Labs Servers. eBox supports older P2 controllers via LAN, WAN and Internet.

### Security

EBox contains a basic security mechanism that prevents unintended hosts from passing data through a secured eBox. A password is set on the configuration page and stored in non-volatile memory. When password protection is enabled, eBox embeds the password in the transmitted IP packet. At the remote end, the receiving eBox must have password protection enabled and be programmed with a matching password.



eBOX GPI Programmer & Utility

## EBOX - REMOTE SOFTWARE FOR MAC

JLCooper Electronics announces the eBOX Software for Mac OSX. This software provides real time control of eBOX features using the Mac mouse and keyboard. It allows your Mac to become a powerful GPI controller for triggering any external switched or serially controlled devices.

Software like Final Cut Pro X, Soundtrack Pro, Logic, Pro Tools, Cubase, Nuendo and others can take advantage of eBOX to automate control of external devices, including RS-422 tape machines, DDRs & others.

- Trigger GPIs and Transport functions from any Mac
- Live Mode lets you click on-screen buttons to trigger 24 GPI Contacts
- Map computer keys to control GPI Outputs
- GPI Inputs can be mapped to key command for remote control of Mac software features
- Remotely Configurable, Off-Location Setup
- Add Delays to precisely control Macro timing
- On-Screen Transport Controls for each of the 4 Serial Outputs
- Mapping of key commands to control Transport functions on Serial Outputs
- Gang Roll of up to 4 RS-422 or RS-232 Ports
- 8 GPI Presets
- GPI Activity Indicators



## EBOX io - REAL WORLD INTERFACE

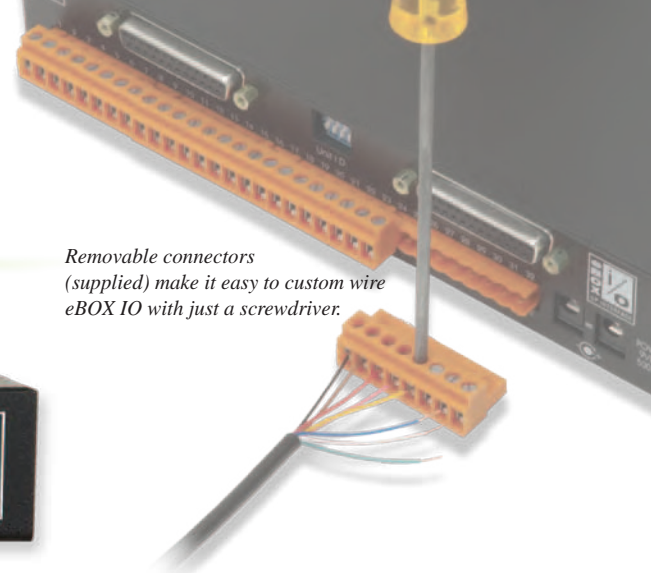
*Relay outputs and opto-isolated inputs for eBOX*



Introducing the companion to the eBox, the eBOX io. The eBOX io converts 8 GPI outputs to electrically isolated, relay outputs. The eBOX io also accepts 8 GPI inputs via optoisolated inputs. All connections are made on the rear panel via high density screw terminals.

A cable is included for connecting it directly to an eBOX. Up to 3 eBOX io's can be cascaded to convert all 24 eBOX GPI inputs and outputs. Front panel LEDs indicate status for easy troubleshooting. eBOX io is a half rack unit and fits alongside eBox in a single rack space.

Removable connectors (supplied) make it easy to custom wire eBOX IO with just a screwdriver.



eBOX IO Rear Panel

### eBOX io Dimensions

- Dimensions 8.5" x 4.7" x 1.75"
- Weight 3 lbs.

## GBOX - GPI TRIGGER BOX



JLCooper's new gBOX is a hardware interface with 48 GPI inputs and 48 GPI outputs. Optional interface cards provide for extended control over 10/100 Base-T (Ethernet), USB, RS-422 or RS-232.

For larger installations, you can combine up to 8 gBox units, to control up to 432 inputs and 432 outputs.

gBox works with our optional eBOX io to provide opto-isolated inputs and relay outputs. Use sBOX - Remote Trigger Box to provide hot buttons to trigger GPIs.

gBOX features rear panel power switch, locking power connector and universal power supply.



gBOX Rear Panel



# Gangway<sup>16</sup> - 16 PORT GANG ROLL SWITCHER



GangWay16™ is a compact, easy-to-use, 16 port RS-422 Gang Roll Switcher and GPI Trigger Box.

The front panel includes a lighted button for clear indication as to the status of each machine, a gang roll button to quickly enable all machines, 3 User Preset Groups and a Tally Select button.

A front mounted RS-422 port provides a convenient connection for a jog/shuttle remote or other device.

It has 16 RS-422 ports on the rear panel and a rear mounted RS-422 control input.

The rear panel also includes 2 - 25 pin D-Sub connectors for GPI I/O, a power switch and an additional interface slot.

An optional interface card can act as a Master Input, connecting the GangWay16 to 10/100 Ethernet, USB, RS-232 or RS-422. This can be used to remotely change the switching configuration of the GangWay16 itself or as the source of commands for controlling connected VTRs, DDRs or Servers.

You can communicate with GangWay16 over LAN, or over the internet, for remote control and switching. It's ideal for remote truck or studio applications.

A new feature allows the ES-SloMo - Universal Instant Replay Controller to directly interface with GangWay16 to provide for control up to 16 RS-422 machines or server channels, using the GangWay16 as the machine interface. Individual remote control of 16 channels.



GangWay16 Rear Panel

## GangWay 16 Physical Specifications

- Size - 19" x 5.5" x 1.7"
- Weight - 5 Lbs.



Combine 1/2 and 1/4 rack units in JLC-RackTray

**JLCooper was one of the developers of the MIDI Time Code Standard. In 1987 we designed and manufactured the world's first synchronizer that supported MTC. We continue to offer innovative solutions to complex synchronization challenges in today's studio and post environments.**

## PPS-2 SYNCHRONIZER

JLCooper's PPS-2™ is ideal for anyone who owns a sequencer, drum machine, workstation or hard disk recording system, and needs to sync to tape.

PPS-2 offers the advantages of several synchronizers in one versatile package. It reads and generates SMPTE time code and converts SMPTE into MIDI Time Code or Direct Time Lock. It also reads and generates JLCooper's "Smart FSK" sync and converts it into MIDI Clock with Song Position Pointer. Jam Sync/Regeneration, Flywheeling, Auto-Merge and a low price make the PPS-2 the best choice for an affordable synchronizer.

PPS-2 remote software for Windows & Mac lets you set SMPTE frame rate and start time when striping.



### PPS-2 Features

- Easy to Use
- SMPTE Jam Sync/Regeneration
- 1 MIDI In with Auto Merge and 1 MIDI Out
- SMPTE Stripe can be Started at any Time
- SMPTE 24, 25, 30 & 30 Drop Rates Supported
- 4.25" x 4.7" x 1.6" Weight - 3 lbs.

PPS-2 Rear Panel



### PPS-2 Plus Option (Included)

The revolutionary PPS-2 Plus enhancement adds the ability to read MIDI Time Code (MTC) from any source and convert it into SMPTE time code.

This option is user-installed and lets your hard disk recorder or computer based digital workstation control machine synchronizers, automation systems and other devices requiring SMPTE Time Code.

**The need to run MIDI signals over long distance is essential for use in recording facilities, theatres, arenas, churches, schools, cruise ships, casinos, nightclubs and other venues using simple twisted pair wiring. Touring professionals also rely on JLCooper MIDI Line Amplifiers to carry MIDI signals long distances over standard audio snakes.**

## MLA-XLR MIDI Line Amplifier



MLA-XLR™ extends the range of MIDI cables to over 1000 feet using standard balanced audio lines (audio snakes, mic cables, etc.).

It requires no configuration and it's simple to use. Just connect the cables and go.

MLA-XLR pairs can carry data over two standard XLR Mic cables and provide a lower cost expansion option for interfacing with other MLA-1 and MLA-10 units in a network application.

### MLA-XLR MIDI Line Amplifier Features

- 1 MIDI Input
- 1 MIDI Output
- 1/4 Rack mount version
- XLR and MIDI connections
- MIDI cable runs over 1000'
- Uses common twisted pair wire
- Multiple units may be networked
- Can be used in pairs or in combination with MLA-1's and MLA-10's
- Dimensions 4.25" x 4.7" x 1.6"
- Weight 3 lbs.



MLA-XLR Rear Panel XLR Connectors



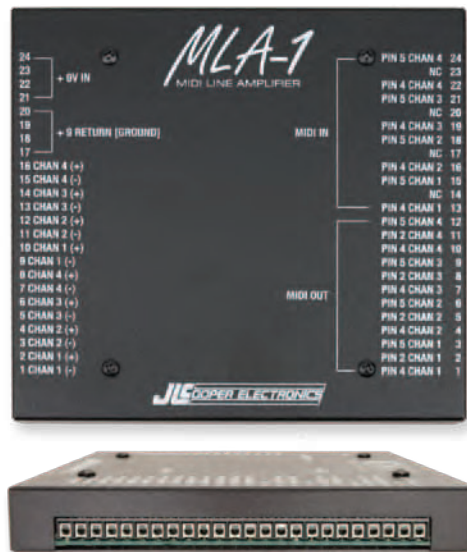
Mount up to four MLA-XLR units in the optional JLC-19" RackTray



## MLA-1 MIDI Line Amplifier

The MLA-1™ can be wall panel mounted or used with a separate MIDI jack panel. This facilitates greater flexibility for installations where MLA-1 units can be in every required room.

MLA-1 can be powered by an MLA-10 or used alone with a separate power supply. Its compact size allows it to be mounted on or inside a wall or panel.



### MLA-1 MIDI Line Amplifier Features

- 4 MIDI Inputs - 4 MIDI Outputs
- Panel mount version
- All barrier strip connections
- Multiple units may be networked
- Can be used with other MLA units.
- Dimensions 6.6" x 6.2" x 0.85"
- Weight 2 lbs.

*Combine MLA-XLR, MLA-1 and MLA-10 units in whatever configurations best suits your needs. MLA-10 and MLA-1 are functionally identical and offer different form factors. Each provides 4 long distance connections in either direction. MLA-10 or MLA-1 can be combined with up to 4 MLA-XLR units. See an MLA User Manual for additional details.*

## MLA-10 MIDI Line Amplifier

*"Best in Show Winner – AES"  
- EQ Magazine*



JLCooper Electronics extends the distance of MIDI with the MLA - MIDI Line Amplifiers. They let you effectively extend MIDI cable length using twisted pair wire or a standard audio snake.

MIDI Line Amplifiers are specifically designed for sending MIDI data over long distances with the capability to send information in excess of 1000 feet.

Ideal for touring systems or permanent installations, MLA's can be used in schools, recording and production facilities, boardrooms, live performances, convention centers, churches, theaters, stadiums, amusement parks and more.

### When to Use a MIDI Line Amplifier

MIDI (Musical Instrument Digital Interface) is an increasingly important consideration for schools, recording facilities, stadiums, arenas, hotels, amusement parks, or other facilities where MIDI messages are required to be sent a long distance, or to multiple locations.

The MIDI standard only permits a maximum cable run of less than 50 feet. The innovative MLA Series MIDI Line Amplifiers overcome this limitation.

The MLA's convert the MIDI signal into a balanced

high speed digital protocol that can travel over common twisted pair wire. The signal is converted back to MIDI through another MLA at the other end of the cable run.

MLA's are ideal for permanent installations or anywhere a longer MIDI cable run is required.

The MLA's can be easily networked to multiple locations such as from the master control room to a series of separate MIDI rooms in a recording studio, broadcast facility or educational lab. This allows you to de-centralize the location of MIDI devices in the system.

### MLA-10

The MLA-10™ is designed to fit into a standard single 19" rack space. Each MLA-10 features 8 MIDI lines configured as 4 inputs and 4 outputs. It has 4 MIDI input connectors, 4 MIDI output connectors and individual MIDI activity LEDs.

### MLA-10 MIDI Line Amplifier Features

- 4 MIDI Input connectors
- 4 MIDI Output connectors
- Detachable terminal strip connectors
- MIDI activity LEDs
- MIDI cable runs over 1000'
- Uses common twisted pair wire
- Multiple units may be networked
- Low power consumption
- Can supply power to multiple MLA-1's
- Front panel power switch
- Single 19" rack space
- Heavy duty rack enclosure
- Dimensions 19" x 1.75" x 3.87"
- Weight 3.25 lbs



MLA-10 Rear Panel XLR Connectors

# Success Through Innovation and Partnership

## *Developers and OEMs Welcome*

JLCooper Electronics successfully works with industry leading companies and educational institutions in a variety of OEM, private label, custom engineering, software development and other relationships.

Dedication to optimum control surface and interface engineering, quality, and reliability makes JLCooper the preeminent partner, helping your company achieve its goals on time and within budget.



We have an established developer program to provide documentation and support for our products. We offer a variety of “off the shelf” products that can be supported “as is” or customized to meet your needs. JLCooper will also help to support and evangelize your compatible products, creating additional strategies and opportunities.

Successfully working in many OEM relationships, JLCooper Electronics develops and manufactures products for companies on the forefront of digital audio, video, multimedia and other technologies.

Let us strengthen your existing development efforts by providing hardware and software products tailored to meet your needs. JLCooper’s range of services include circuit board and enclosure design, manufacturing and testing, packaging and documentation. All this from the team consistently chosen by dozens of world-class manufacturers as the best in the business.

Visit our Developer page at [jlcooper.com](http://jlcooper.com) for additional information.















## *The JLCooper Story*

JLCooper Electronics is truly a pioneer in the development of professional control, automation, synchronization and interfacing products.

Our solid reputation for design innovation is a testimony to the quality, reliability and performance of every product we make.

The company was founded in 1979 to make accessories for the growing music synthesizer market. Over the years, JLCooper has expanded to become a multi-million dollar corporation servicing audio and video production, television and radio broadcast, film editing, medical research and imaging, aerospace, education and many other specialized markets.

All products are manufactured in the U.S.A. and carry a full one year warranty. JLC products are sold by dealers and distributors worldwide.

JLCooper offers a complete range of branded products for the professional audio, video and multimedia markets. Our additional success as an OEM supplier can be attributed to our remarkable versatility. We understand the pressures involved in creating new product designs and we can help you define objectives and achieve them on time.



Control, Automation, Synchronization, & Interfacing Products

[WWW.JLCOOPER.COM](http://WWW.JLCOOPER.COM)



With 34 years of manufacturing experience and hundreds of finished product designs, leading companies look to JLCooper as a partner for custom control applications. We want to be your partner too.

Contact us now to get your wheels turning fast.

*For the Latest News and Information, Visit Us On-Line at [www.jlcooper.com](http://www.jlcooper.com)*

Contact your Authorized Dealer or JLCooper Electronics directly. Customers in the U.S.A. and many other countries can order direct from JLC. Products can be ordered by phone, mail, fax or on-line, via our secure web store.

**JLCooper Electronics • 142 Arena Street • El Segundo, CA 90245 • 310-322-9990 •  310-335-0110 • [www.jlcooper.com](http://www.jlcooper.com)**

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ES-450 SP, eBOX, eBOX io, sBOX8R, sBOX8D, SloMo Elite, Eclipse CX, Eclipse SX, Eclipse MX, Eclipse MXL, Eclipse TX, Eclipse BTX, Eclipse 24, Eclipse Midnight, Eclipse PX, SharpShot, gBOX, FaderMaster Professional, FaderMaster 4/100, GangWay 16, MCS<sup>2</sup> Media Control Station, MCS<sup>3</sup> Media Control Station, MCS3 SP, MCS5, KeyShot, RackShot, ES-SloMo, ES-450 JE, MLA-1, MLA-10, MLA-XLR, Nuage Panner and PPS-2 are trademarks of JLCooper Electronics.