Applications

Introduction

As the Lynx System Supervisor Unit (SSU) provides a versatile open ended architecture for high-performance machine control systems, it is important to define it's features for your specific application. A helpful exercise is to sketch out the proposed system, on paper to develop a complete plan of the hardware and interface requirements.

The SSU manages all communications to and from the Lynx-2 machine synchronizer system, and transparently handles computer, console automation and multiple controller input for both the simplest and most complex installations. The following diagrams outline various system configurations, and can be used as a guide for your specific application.

A clear understanding of the potential of the SSU will help you plan your system to cater to future applications. Keep in mind that the basic building block item in these various configurations is the Lynx-2 Time Code Module, and an efficient, high-performance system depends on the quality and compatibility of all the equipment being used. This includes, but is not limited to, analog and digital multitrack machines, analog and digital VTRs, film transports and projectors, telecine machines, digital workstations, and DAT machines.

As newer technologies and machines become available, the SSU will continue to be developed to efficiently handle these installations.
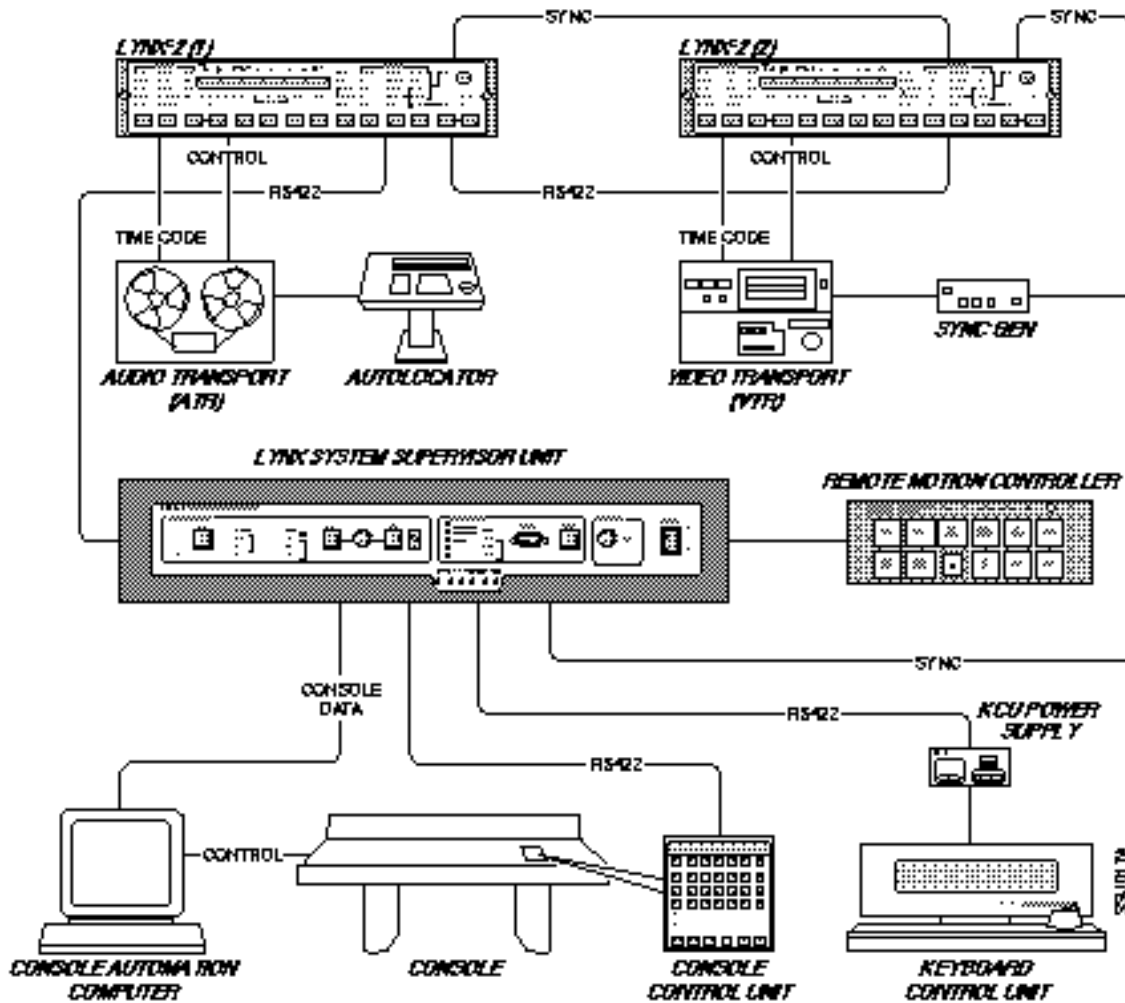
Post Production Audio

Figure 2-1. Post Production Audio

The SSU is ideally suited to manage the complex demands of the post-production process. The SSU and complementary TimeLine controllers are designed to handle many different types of work involved in a typical production facility. Specific features designed to simplify ADR, Foley and Sound Effects editing are available in the KCU, CCU and SSU.

Post-production facilities can choose from a variety of installation options that best suit their particular needs and requirements. The SSU accommodates large and small installations, while providing an upward path for expandability that allows continued growth. Providing solutions for contemporary machine control issues will always be a top priority for the SSU.

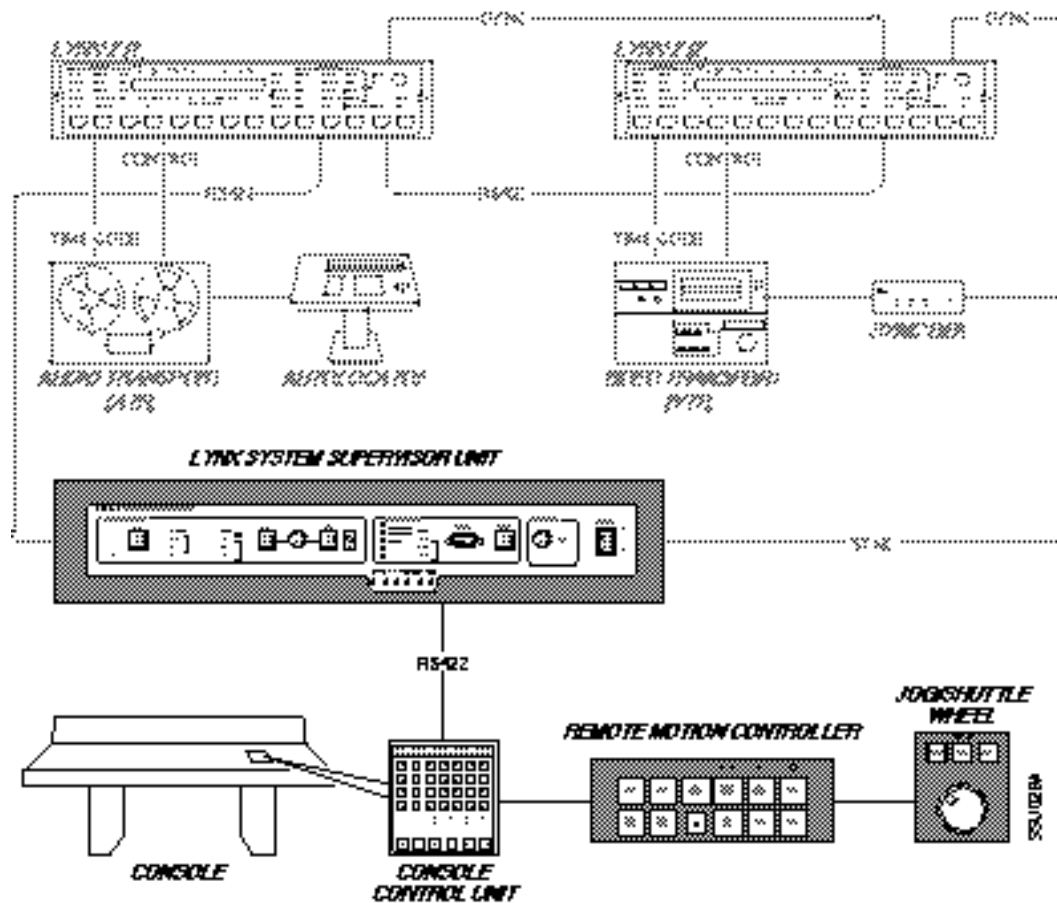# Using the System Supervisor with the Console Control Unit

Figure 2-2. Using the System Supervisor with the Console Control Unit

The Console Control Unit (CCU) is a compact machine controller designed for installation into recording consoles and console automation systems. The CCU is ideal for applications that are not editing intensive, and where console "real estate" is at a premium.

The SSU handles all CCU communications to the individual modules, console automation computers, and motion control switches. Machines can be controlled in group or solo modes, offsets can be entered and trimmed and sync points can be applied for accurate post-production control. Track arming is available for serially controlled transports, and automated editing can be performed with the optional Remote Motion Controller (RMC).

Console automation systems become powerful machine control systems with an SSU/CCU installation. The SSU handles high-speed data communication while providing a transparent interface to the console automation computer.

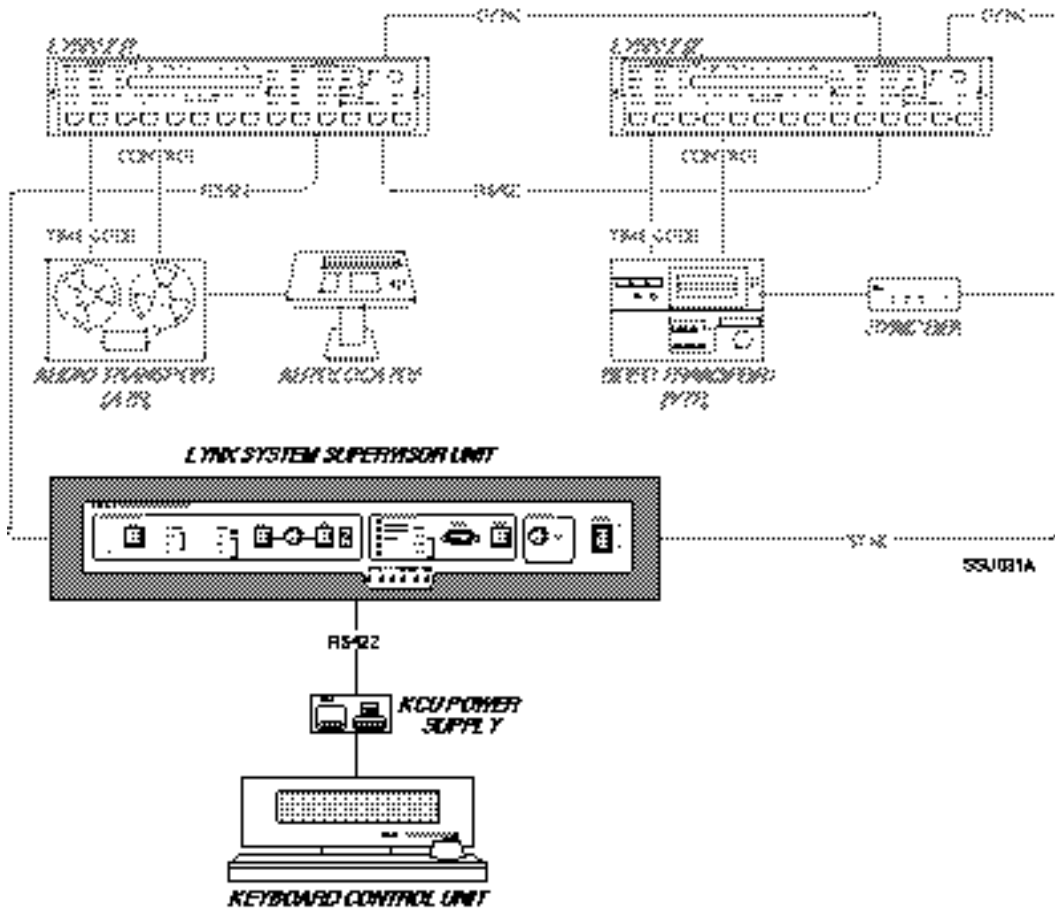# Using the System Supervisor with the Keyboard Control Unit

Figure 2-3. Using the System Supervisor with the Keyboard Controller Unit

Using the Keyboard Control Unit (KCU) with the SSU provides an extensive post-production system. The KCU editing features are combined with the SSU controls to provide editing performance to the professional level required by today's contemporary, high-level post-production facilities.

The KCU provides complete control of all transport functions as well as the features internal to the SSU. System controls include eight GPI triggers, ADR beep outputs for dialogue replacement editing and three separate time code generators for use with virtual machine and console automation control. Macros can be programmed for frequently performed operations. All operator options and features are controlled from the KCU, providing a central operating point for all system parameters.

The SSU and KCU may also be used with a console automation system, increasing the power of the system to include operations from either the console computer, console transport keys, or the operating keys from the KCU. The versatile, open-ended architecture of the SSU allows a combined number of operating styles to exist within a single operating framework.

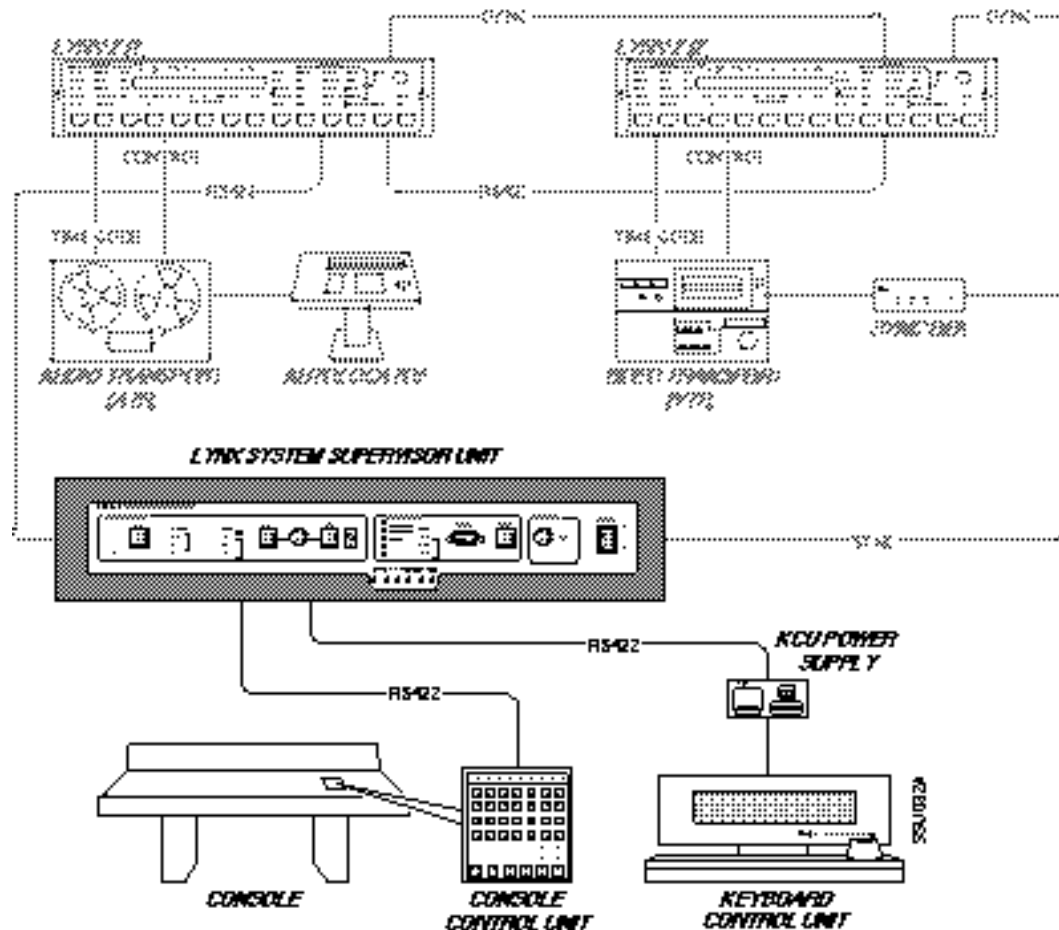# Using the System Supervisor with Two Keyboard Controllers

Figure 2-4. Using the System Supervisor with Two Keyboard Controllers

The standard SSU can accommodate up to two controllers at once. This may be either two CCUs, or two KCUs, or one of each. This provides maximum control over large studio console operations, where multiple operators require access to the machine control process.

Each controller, when connected to the SSU, is a duplicate controller in every way, providing instant access to each function and feature of the system. Each operator has equal access to store and retrieve information in the system time code registers such as offsets, sync points and record in and out times.
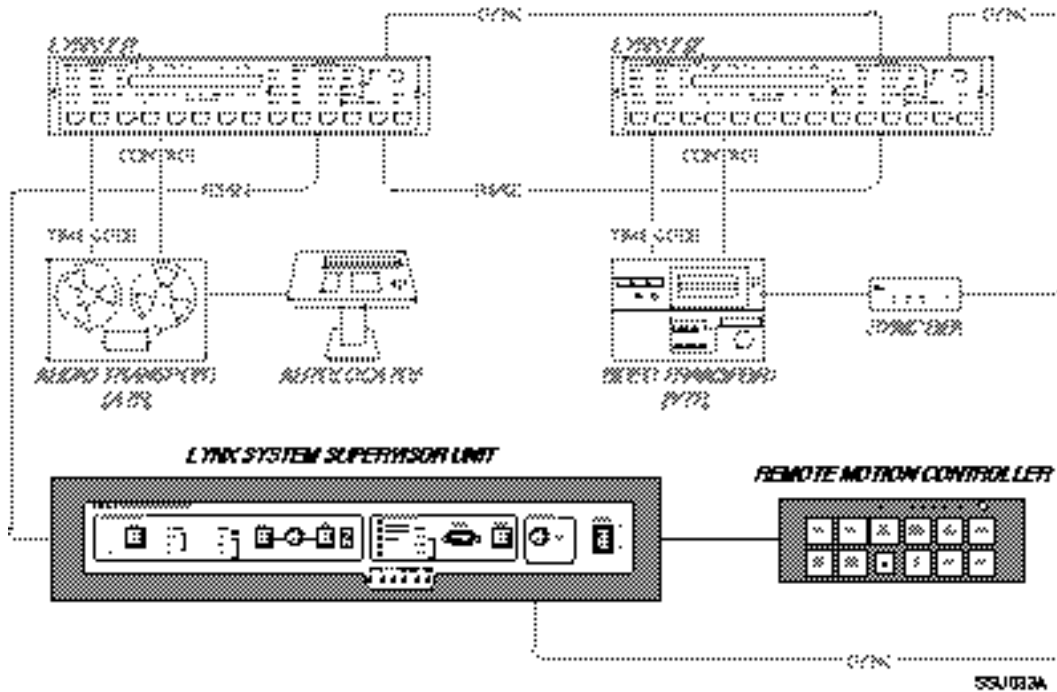
Using the System Supervisor with the RMC

Figure 2-5. Using the System Supervisor with the RMC

The Remote Motion Controller (RMC) is an optional item that provides parallel KCU style transport and edit keys for remote installations. The most common configuration permits transport control for a machine recordist, or other operator, in a remote location. This unit comes in a kit form for customer installation in a console, or other operator location.

When directly connected to the SSU, the RMC provides LED indications for ADR beep countdown, group lock and loop. The RMC can also be used with the CCU to add editing control functions for post-production applications.

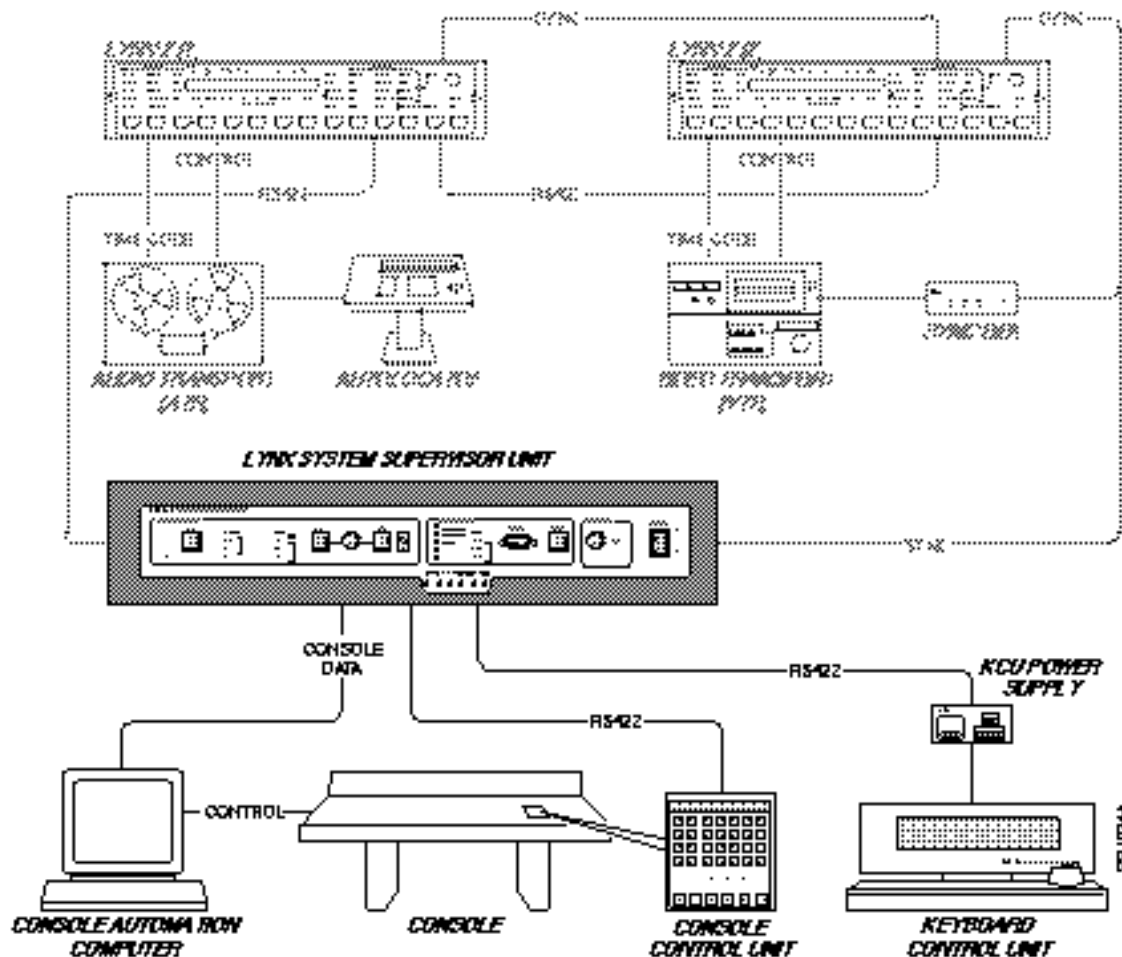# Using The System Supervisor with Console Automation Systems

Figure 2-6. Using the System Supervisor with Console Automation Systems

In many studio environments, console automation is an essential part of the control system. The SSU permits complete integration of the machine synchronization system with most computer automation systems. A single console operator can now perform multifunction tasks without being overburdened with the machine control system. The SSU handles all of the high-speed data communication between the computer and machines, while allowing the operator to control the system from the automation.

TimeLine has worked in conjunction with many console companies to provide installation software and hardware, for easy system integration. In some instances, this requires special hardware, such as the optional TimeLine SSL interface card that allows communication with G Series computers. In all cases, the operator has the choice on how to control the system, from a TimeLine controller or the automation system.

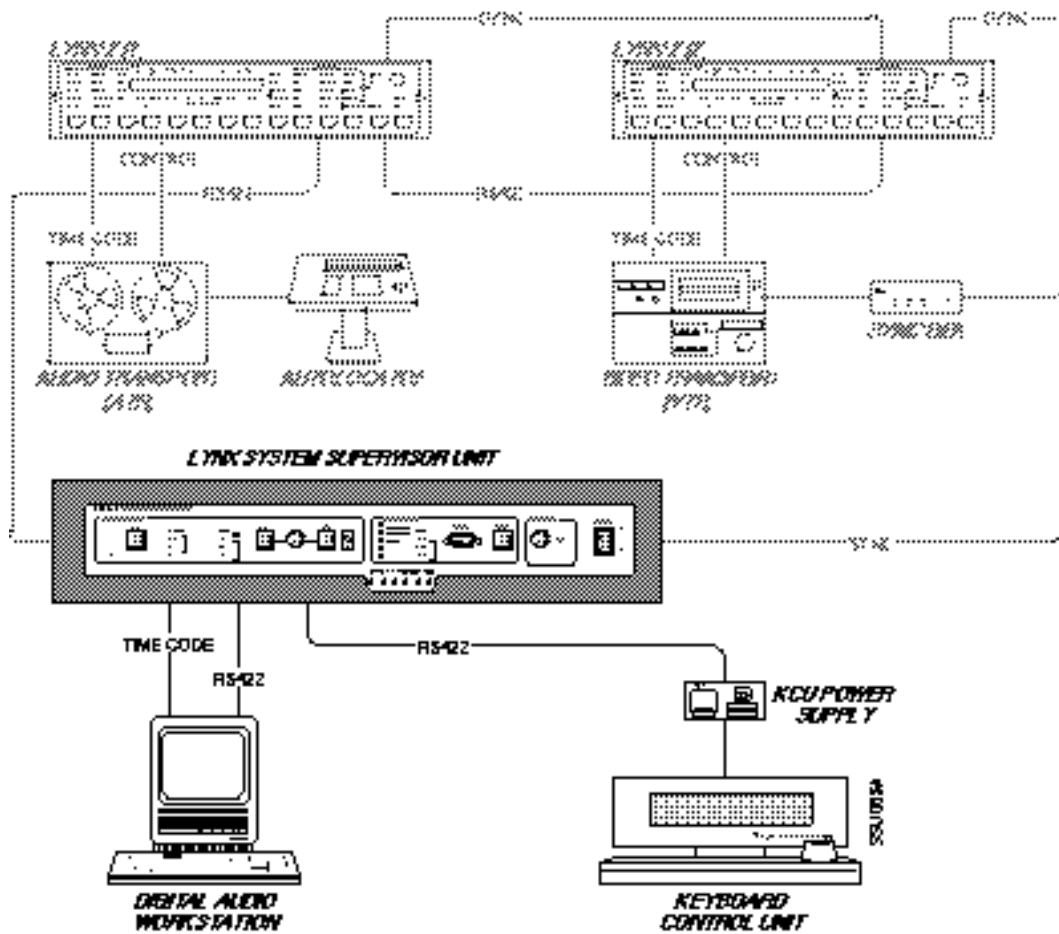# Using the System Supervisor with a Digital Audio Workstation

Figure 2-7. Using the System Supervisor with a Digital Audio Workstation

The SSU easily integrates transport control into a Digital Audio Workstation (DAW) environment. This configuration provides a seamless link between the workstation controller and the Lynx-2 machine synchronizers.

Maximum control is achieved when the digital audio workstation manufacturer interfaces to the SSU ES-Bus control port, providing a computer interface to the SSU. In other cases, the MIDI time code or virtual machine time code generators can be used to slave the digital audio workstation.

TimeLine has worked in conjunction with many digital audio workstation companies to provide installation software. In most instances, all that is required is an RS422 or time code connector, to facilitate the installation.