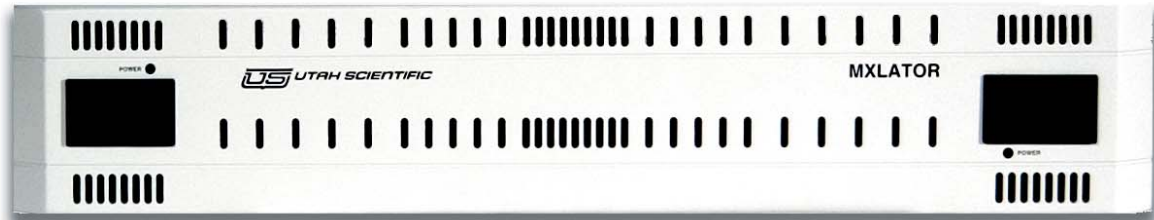


# MX-Lator

## CONTROL TRANSLATION UNIT



The MX-Lator Control Translation Unit is designed to provide a simple, reliable, and cost-effective way to integrate the control of external routers into an SC-4 / SC-400 control system. When bringing an external router under the control of a Utah Scientific controller, it is necessary to provide a translation of the router commands between the internal (MX-Bus) control architecture and the remote control port provided by the external router. This job is handled by the MX-Lator.

In addition to translating the command protocol instructions, MX-Lator is capable of maintaining a memory image of the remote router, allowing the remote router to be fully integrated into the Utah Scientific control system, even in the absence of a full bi-directional control capability in the external router.

### MX-LATOR FEATURES

- Fully integrates external routers into a Utah Scientific control system.
- Redundant translator board option for maximum operational reliability.
- Dual redundant power supplies are standard equipment.
- Full range of control protocol options for most popular third-party routers.
- Includes control protocol support for all earlier Utah Scientific routers.
- Optional internal controller board(s) for stand-alone operation.

The MX-Lator Control Translator is packaged in a 2 RU frame with redundant power supplies for maximum reliability.

Dual redundant MX-Lator boards are available as an option for critical applications.

The MX-Lator frame also offers support for dual SC-400 System Controller boards for applications where there is no existing SC-4 or SC-400 System Controller present.

### Applications

- Control of external routers from other manufacturers. Third-party control interfaces are offered on many brands of routing switchers. For controlling these routers, the MX-Lator offers 6 RS-422 serial ports. In addition to the industry-standard SMPTE control interface protocols, several dedicated interfaces are available for use in communicating with the native control interfaces on the more popular brands of routing switchers. Custom-developed interface protocols are also available.
- Control of Utah Scientific SC-Bus systems. The MX-Lator is equipped with a pair of SC-Bus ports for use with Utah Scientific AVS-2 routing switcher systems, allowing the AVS-2 routers, DDS-2 data routers, and compatible control systems to be integrated in an MX-Bus system.
- Control of Utah Scientific Data-Bus systems. The MX-Lator is equipped with a pair of Utah Scientific Data-Bus ports for use with Utah Scientific AVS-1B routing switcher systems, allowing these routers and their control systems to be integrated in an MX-Bus system.

An MX-Lator system can be configured with one third-party interface and both of the legacy Utah Scientific interfaces operating simultaneously. If multiple third-party interfaces are required, an MX-Lator unit should be added for each interface.

### System Connections

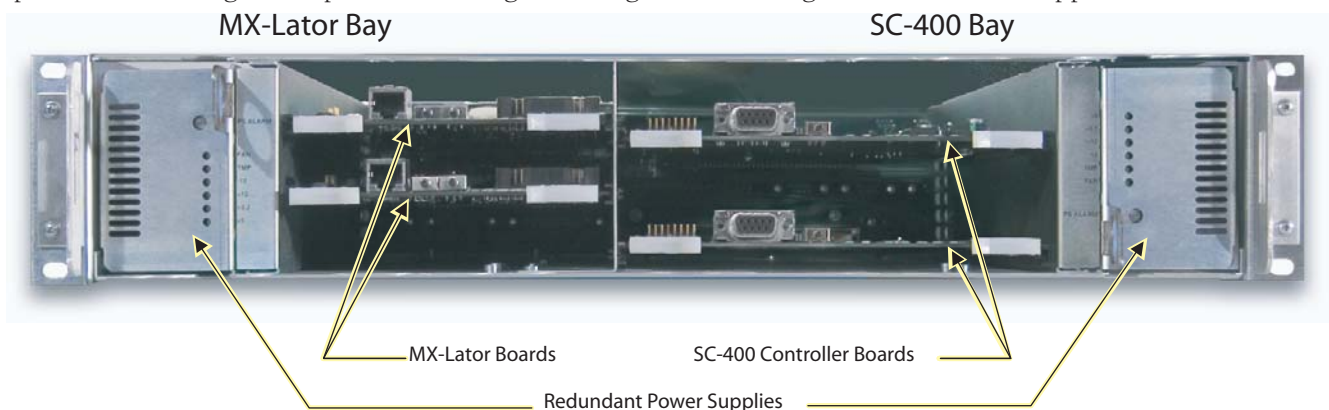
In addition to the connection ports described above, the MX-Lator rear panel carries an RJ-45 ethernet port, an alarm connector for reporting power supply and board faults, a looping input for a vertical interval reference signal, and a timecode input.

### SC-400 System Controller Option

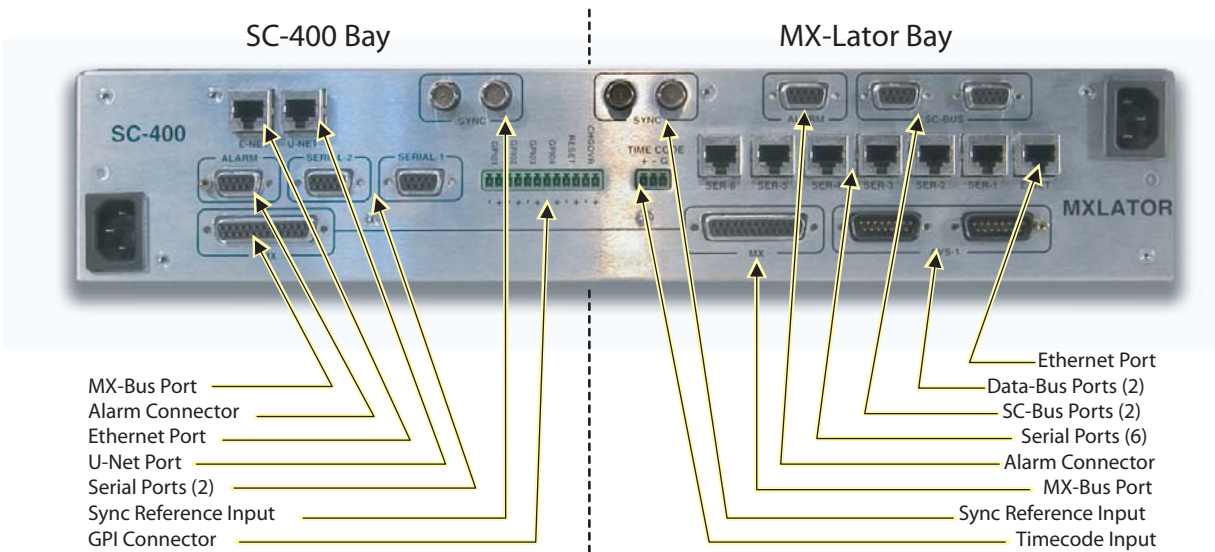
With the internal controller(s) installed, the MX-Lator can be controlled by any of the wide range of Utah Scientific U-Net or ethernet control panels, allowing the user to select exactly the right panels for the control requirements of the application.

When multiple MX-Bus router frames are used in a system, such as separate audio and video frames, they are connected to the MX-Lator frame by running MX-Bus cables to each frame in a daisy-chain connection.

The internal SC-400 controller offers one U-Net port for connecting the UCP and SCP series Utah control panels and an ethernet port for connecting to computer(s) running the configuration, management, and control applications that are designed



## MX-Lator Product Information Sheet



for use with the SC-4 and SC-400 system controllers. The ethernet port can also be used with UCP and SCP series control panels that are configured for ethernet rather than U-Net communications.

The SC-400 controller also offers two serial ports for use with external devices such as automation controllers, Under Monitor Displays, etc.

A looping sync input is provided for connection of a composite video vertical interval reference signal. Both PAL and NTSC signal formats are supported.

An alarm connector is provided for remote connection of the SC-400's operating alarms which report major internal faults such as power supply failures, internal temperature alarm, and controller failures.

### SC-400 FEATURES

- **Compatible with all Utah control panels - Provides a wide range of control options.**
- **Increased Matrix Size Capacity - Allows for future growth (64 x 64 x 8 levels).**
- **Graphical User Interface (GUI) applications for configuring, managing, and operating the system.**
- **Dual Standard Sync Input - Supports NTSC and PAL vertical blanking interval switching.**
- **Tie Line Management Feature – Simplifies multi-format routing.**
- **Redundant Control Boards in One Frame - Preserves valuable rack space.**

## MX-Lator Product Information Sheet

MX-LATOR PRODUCT SPECIFICATIONS		
Mechanical Dimensions:		19"W x 22" D x 3.5"H (2 ru EIA rack mount)
MX-Lator Bay Connectors:	Sync: Network Ports: Timecode Input: Alarm Port: Serial Control Ports: SC-Bus Ports: Data-Bus Ports: MX-Bus Ports:	BNC (looping input for analog PAL, NTSC, or Tri-Level HD sync signals) RJ-45 (One Ethernet) Terminal Strip (3 contacts) DB-9F Subminiature 9-pin D connector with female pins. RJ-45 (6 ea) DB-9F Subminiature 9-pin D connector with female pins (2 ea) DB-15M Subminiature 15-pin D connector with male pins (2 ea) DB-25F Subminiature 25-pin D connector with female pins (2 ea) (shared with SC-400 bay)
SC-400 Bay Connectors:	Sync: Network Ports: GPI/O Connector: Alarm Port: Serial Control Ports: SC-Bus Ports: Data-Bus Ports:	BNC (looping input for analog PAL or NTSC sync signals) RJ-45 (One Ethernet, One U-Net) Terminal Strip (six pairs of contacts) DB-9F Subminiature 9-pin D connector with female pins. DB-9F Subminiature 9-pin D connector with female pins (2 ea) DB-9F Subminiature 9-pin D connector with female pins (2 ea) DB-15M Subminiature 15-pin D connector with male pins (2 ea)
Environmental:	Temperature: Relative Humidity:	10-40°C 0-90% (non-condensing)
AC Power:	110 / 240VAC 50 / 60 Hz	Chassis consumption is 35 VA max. Dual redundant power supplies are standard equipment.



New Directions in Digital Switching

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