

MX-Lator & UCI-400 CONTROL TRANSLATION UNITS



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

In addition to translating the command protocol instructions, MX-Lator is capable of maintaining a memory image of a 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.

The UCI-400 is a simple protocol translator, accepting commands in one protocol and translating them into another protocol for use in allowing external devices to control the Utah system or to allow the Utah system to control the external devices.

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.

UCI-400 FEATURES

- Economical 1RU fixed-configuration package.
- Translation to/from serial and Ethernet control protocols.
- Full range of control protocol options for most popular third-party routers, production switchers, and display systems.

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 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

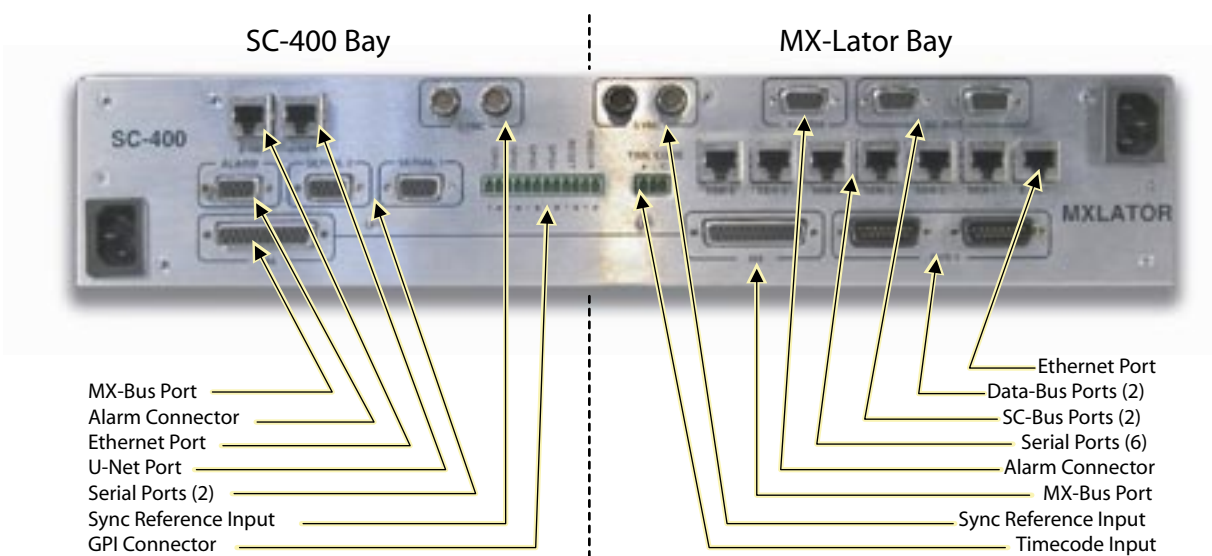
In addition to the connection ports described above, the MX-Lator rear panel carries an RJ-45 ethernet port, an alarm connector for reporting power supply and board faults, a looping input for a vertical interval reference signal, and a timecode input.

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 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 routers - Provides a wide range of control options.**
- **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 SPECIFICATIONS

Mechanical Dimensions:	19"W x 13" 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)
SC-400 Bay Connectors:	Sync: Network Ports: GPI/O Connector: Alarm Port: Serial Control 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)
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.

UCI-400 Rear Panel



FOR FURTHER INFORMATION

on the other products in the Utah Scientific control system family,
 please refer to the detailed data sheets that are available on our
 Web Site:
www.utahscientific.com

www.utahscientific.com
 E-mail: sales@utsci.com



4750 Wiley Post Way -- Suite 150
 Salt Lake City, Utah 84116
 Phone: +1 (801) 575-8801
 Fax: +1 (801) 537-3099

Via Filli Bandiera, 52
 20050 Verano Brianza (MI)
 Italy
 Phone: +39 0362 330 001

Thoroyaveien 11
 3209 Sandefjord
 Norway
 Phone: +47 33 522 700

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