

## Model LTM-ER3 User Manual

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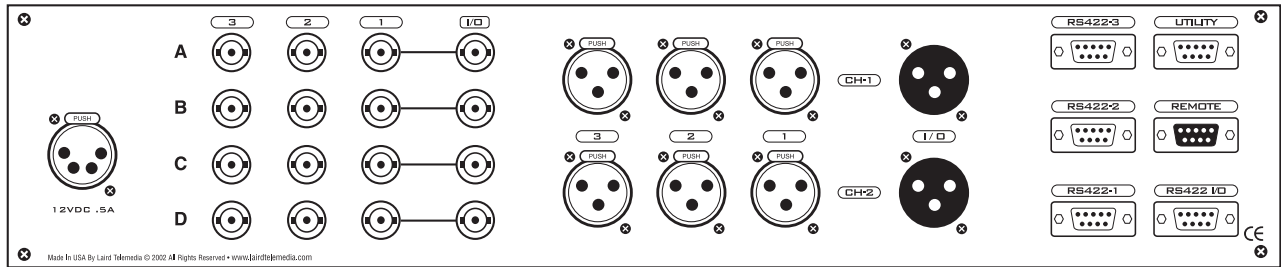
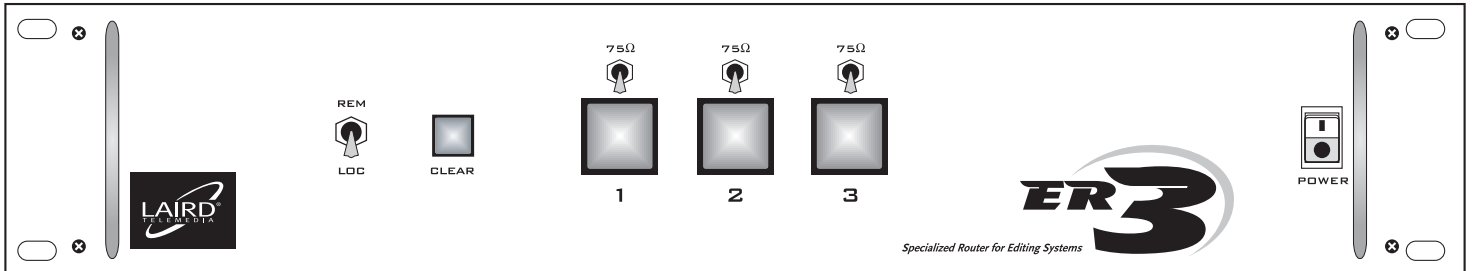
# **LTM-ER3**

## **3 Machine Signal Router for Non-Linear Edit Systems**



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## 3 Machine Signal Router for Non-Linear Edit Systems



The LTM-ER3 is a high quality logic controlled high bandwidth passive 1x3 switcher designed for the demanding video presentation, duplication and production environments. The LTM-ER3 is part of the LAIRD family of optimized design interface products that perform many tasks in all areas of the media facility.

### SPECIFICATIONS

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| <p><b>VIDEO:</b> 3 sets of 4 BNC switched lines : 1 Ghz sweep frequency: HDTV and SDI compatible. PAL-NTSC-SECAM</p> <p><b>AUDIO:</b> 3 sets of Audio: Female XLR dual channel</p> <p><b>RS422:</b> 3 sets of 9-Pin Female D-Sub for Serial Machine Control</p> <p><b>UTILITY:</b> 9-Pin D-sub for use with LEM-ER4DX digital expander</p> | <p><b>CONTROLS:</b> Front Panel: Remote/Local switch<br/>Clear Selection switch<br/>Select button</p> <p><b>POWER:</b> 12VDC 500mA: 110/220V AC adaptor provided</p> <p><b>DIMENSIONS:</b> 3.5"H x 19"W x 7"D EIA rack mount</p> <p><b>OPTIONS:</b> LTM-ER3RM: Optional Remote Control pad supplied with 25 ft. cable.</p> <p><b>WEIGHT:</b> 8 lb. without shipping carton</p> |
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### *VIDEO SWITCHING*

The LTM-ER3 features 4 video paths in a 1x3 configuration. High bandwidth BNC connectors are provided for any video signal: Analog composite, YC, Component or Digital: SDI, HD. Any information carried in the vertical interval is maintained and passed on. Each path has a 1Ghz bandwidth and can be mixed or configured in various formats. Front panel toggle switches allow the user to terminate or unterminate the video signals to accommodate LOOPING configurations of video.

### *AUDIO SWITCHING*

Balanced audio switching is accomplished using standard XLR balanced connectors. For unbalanced audio, simply use XLR to RCA adaptors.

### *RS422 SERIAL CONTROL*

The LTM-ER3 features industry standard RS422 machine control switching using pins 2,3,7,8 in duplexed configuration.

### *EXTERNAL OPTIONS*

Remote Control is provided in two products: The LTM-ER3RM is a handheld control unit which allows pushbutton switching up to 100 feet away from the unit. The LTM-DVC1 DVORA MEDIA ENGINE COMPUTER can also be ordered with an optional control tray.

The LTM-ER3 can control other LAIRD devices as well. The utility port will "talk" to LTM-ER4DX digital modules, thus providing IEEE1394, SPDIF, and additional SDI switching.

Standard 9pin Ribbon cable with wired in 1=1 configuration can be used for distances up to 100 feet from the unit.

### *POWER SUPPLY*

The LTM-ER3 is shipped with a universal 110-220 auto switching 12VDC power supply. The power supply works anywhere in the world and is shipped with American and European AC plugs. The power supply connector on the rear of the LTM-ER3 is wired in standard battery belt 4pin XLR configuration with Pin-1 negative and Pin-4 positive. The power supply is rated at .5AMPS DC and can be un-regulated power.

### *TECHNICAL SUPPORT*

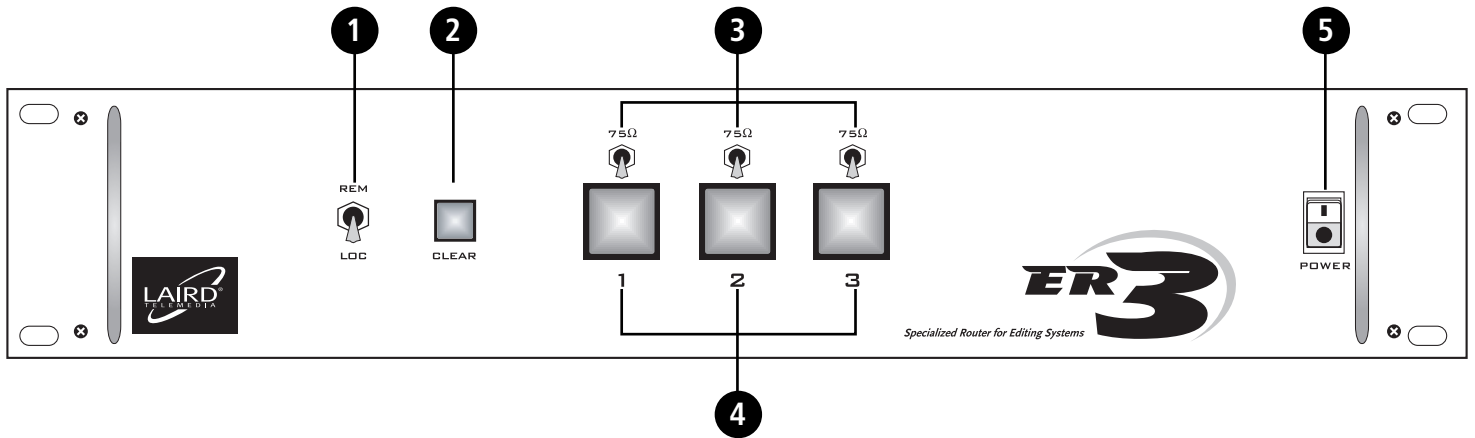
The LTM-ER3 is a highly specialized, flexible and adaptive product. It would be impossible to include with this manual all the possible wiring solutions that we can think of and that customers have developed. In an effort to provide you with as much information and assistance as possible, we will continually post application diagrams at our web site: [www.lairdtelemedia.com](http://www.lairdtelemedia.com). You may also E-mail us at [info@lairdtelemedia.com](mailto:info@lairdtelemedia.com).

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### FRONT PANEL PRODUCT DESIGNATIONS

The LTM-ER3 is housed in a EIA 19 inch rackmount 2RU cabinet. The front panel has all the user control switches and the rear panel has all the equipment connections. All media input/output signals are configured in a 1x3 configuration, which switch together from either the front panel controls, or from the optional remote control unit. The LTM-ER3 can also be controlled by the LAIRD DVORA MEDIA ENGINE edit computer configured for this operation.



**1 Remote - Local Switch:** Allows LTM-ER3 to be controlled by optional handheld remote control unit #LTM-ER3RM from up to 100 feet.

**2 Clear Switch:** Clears selected switch from memory and nulls all switch positions.

**3 Video Input Termination Switches:** In UP position, the video line is terminated. In the DOWN position, the line is unterminated allowing for a looped signal.

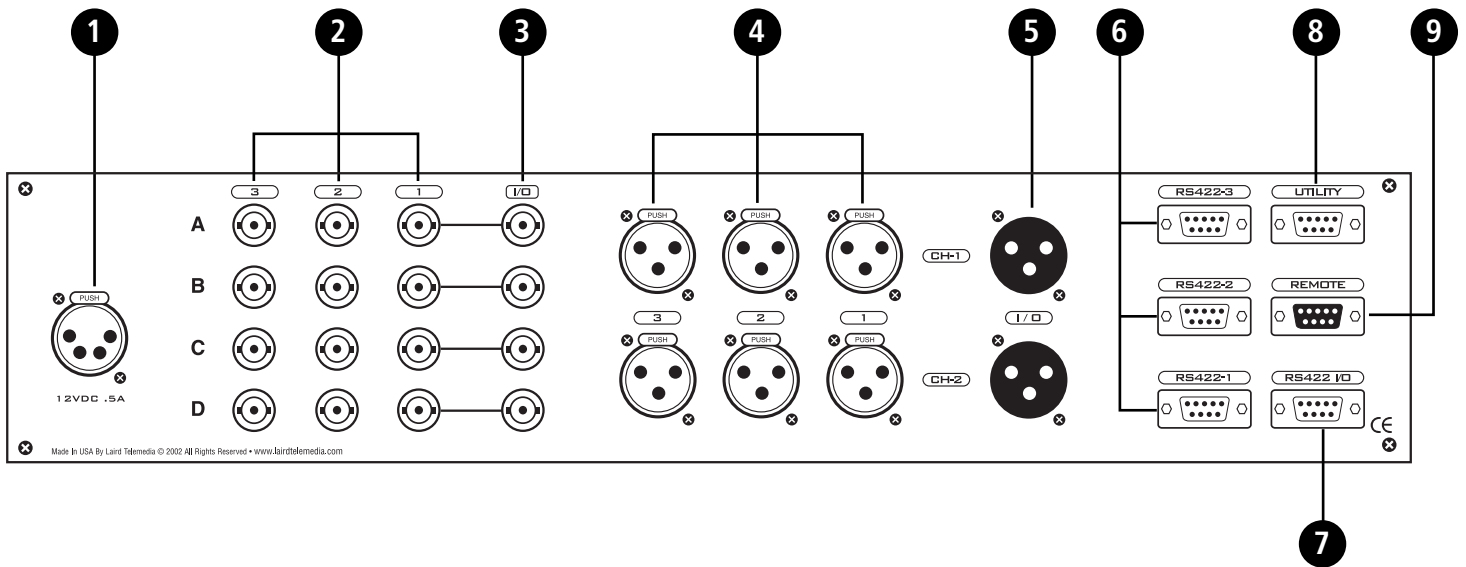
**4 Input Select Switches**

**5 Power Switch**

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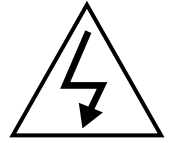
### REAR PANEL PRODUCT DESIGNATIONS



- 1 Power Input:** Pin-1 Hot, Pin-4 Ground. 4-Pin XLR.
- 2 Video:** Device 1, 2 & 3. Four lines provided for each device, labeled A, B, C & D.
- 3 Video Input / Output:** In / out for lines A, B, C & D.
- 4 Audio:** Left & Right or Channel 1 & Channel 2 audio lines for device 1, 2 & 3.
- 5 Audio Input / Output:** In / out lines for left and right audio of device.
- 6 RS422 Ports:** For device 1, 2 & 3.
- 7 RS422 Port I/O:** Common port for RS422
- 8 Utility Port:** Controls optional Laird devices
- 9 Remote Control Port:** Connects optional LTM-ER3RM handheld remote control.



# Safety Precautions



1. To prevent fire or shock hazard, do not expose this equipment to the environment of Humidity and/or dust. Do not use this equipment in an unprotected outdoor installation or any area classified as a wet area.
2. The operating temperature of this product must be kept between -40°C and +95°C. Direct sunlight or an intense source of heat, direct or ambient, must not be introduced to the product either by induction or contact.
3. Always keep the product on a stable and secure base or enclosure. Do not drop the product or subject it to sudden heavy impact.
4. Provide adequate ventilation so that thermal characteristics do not cause an increase in product temperature to resulting in overheating.
5. Do not clean the unit by using electrically conductive or corrosive chemicals. Always be certain to unplug the unit from AC wall power before any major cleaning. Use a damp cloth only for cleaning.
6. Do not subject the product to electrical mains power over voltage: The product must be used at the rated supply voltages indicated on the product rear panel only.
7. Do not plug the product into an overloaded electrical outlet. This may result in fire or electrical shock.
8. Object Ingress and Liquid Entry: Never insert or push sharp metal objects into the product or use such devices for an attempt at opening or servicing the product. Servicing should be referred to a trained and qualified technician only. Do not allow liquid of any type to enter the unit. Do not allow the unit to be submersed in water as this may cause a shock hazard.
9. A trained qualified technician should perform all servicing of the unit. There are no serviceable compo-

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