

- **Serial Digital 4:2:2 (270Mb/s) operation**
- **Up to 99 still logos or up to 21 seconds of animation (see memory capacity charts)**
- **Program inputs and outputs are full 10-bit, with internal 12-bit processing throughout**
- **EDH monitoring on program input and EDH generation on all serial digital outputs**
- **Built-in 12-bit Linear Digital Keyer with both Preview and Program outputs**
- **Fully-adjustable logo position, keyer settings (offset, gain, transparency) as well as animation properties**
- **Timeline capability provides looping, cueing, and sequenced insertion and removal of logos**
- **Compact 1RU frame and desktop control panel**

LogoMotion is the worlds most powerful and fully featured Logo Generator and Inserter/Keyer. The LogoMotion stores up to 99 logos in full-bandwidth, uncompressed 4:2:2 quality. Each logo is stored with its own full bandwidth luminance key (alpha/matte) channel for precise linear keying. A built-in digital keyer simplifies installations, freeing up valuable downstream keyers.

Logo Storage

Logos are stored in any combination of seven sizes, from 1/9th size to full screen. Static logos are 1 frame in duration, while animated (motion) logos may be stored with durations of up to 21.5 seconds. Any combination of static and animated logos can be stored together.

Logos are stored on solid-state Flash memory chips, which offer instant logo recall and in-circuit reprogrammability with reliability far beyond that of floppy disks. Using the supplied LogoWIN or LogoDOS utilities, graphics files can be downloaded to the LogoMotion in seconds, and changed anytime. An optional Video Capture module allows direct capture of both static logos, and real-time capture of animated logos from a serial digital (4:2:2) source.

Control Panel

The LogoMotion is controlled from a simple to use control panel (shown above), allowing quick changes to logo position, keyer settings, and fade rates. A unique timeline feature allows logos to be sequenced, keying into program video for a predetermined duration, chaining and cueing other logos, or looping on themselves to form continuous and endless motion.

Enhanced functionality for MGI-370X LogoMotion

Several options are available for the MGI-370X line of Logo Generators/Inserters. These components enhance the functionality of LogoMotion to make it one of the most comprehensive logo inserters on the market today. All upgrades are user installable and offer features that enhance functionality and ease of use. The options are as follows:

3701VC-XX 4:2:2 SDI Video Capture Module

- 625/525 line support
- Captures both still and animated logos directly from a serial digital feed
- Captures both fill and key of any logo size
- Timecode input for frame accurate animation trigger

A serial digital capture card with a number of memory configurations, the 3701VC provides real-time capture of fill and key signals for still and animated logos. The duration of the captured material may be as short as a single frame, or as long as 21.5 seconds, depending on memory configuration. The capture module also allows for image captures from 1/9th screen to full screen. As a result of direct memory access, logos and animations may be loaded in record time. Several memory



configurations are available to match the memory option installed in the LogoMotion unit.

3701CE Composite Monitoring Encoder

- PAL-B, NTSC support
- Program / preview monitoring

This composite encoder module adds confidence monitoring capabilities to the Serial Digital LogoMotion. PAL-B, PAL-M and NTSC standards are supported. This monitoring encoder is not color genlocked, and is not recommended for on-air use.

3701MM-XX-10 10-bit Flash Based Memory Module

- Compatible with video capture and computer up-loads
- Available in sizes from 8MB to 72MB

To ensure the highest possible quality of captured logos and animations, Leitch now offers ten-bit storage for their MGI-370X series LogoMotion product family. Utilizing non-volatile Flash based RAM, the 3701MM-XX-10 is available in 6MB, 18MB, 36MB, and 72MB capacities.

Memory Capacity Chart: Static (Still) Logos

Memory	Full	1/2	1/3	1/4	1/9
36 MB	30	60	90	99	99
72 MB	60	99	99	99	99

Memory Capacity Chart: Animated (Motion) Logos

Memory	Full	1/2	1/3	1/4	1/9
36 MB	1.1 sec	2.4 sec	3.6 sec	4.8 sec	10.8 sec
72 MB	2.3 sec	4.8 sec	7.2 sec	9.6 sec	21.5 sec

- Notes:
- 1) Capacities are approximate.
 - 2) Static and animated logos can be mixed to fill available memory.
 - 3) Capture memory capacity does not need to be the same as storage memory capacity, and can be determined by the maximum duration of animation to be captured in any single logo.

3701TT Time and temperature inserter

- Supports Fahrenheit and Celsius
- Internal clock and external timecode reader
- User definable downloadable fonts
- Optional outdoor temperature probe

Time and temperature insertion capabilities are provided by the 3701TT time and temperature module. This option supports time insertion based on time of day SMPTE timecode signals from master clock drivers, or its own internal free-running clock circuit. Temperature is captured in real-time from a Leitch standard temperature probe, (1302TT-PROBE) and may be displayed in Fahrenheit or Celsius. Any Windows TrueType font may be used for the digital clock and temperature typeface, allowing stations to have a unique look and feel to their time and temperature display.

SPECIFICATIONS

Specifications and designs are subject to change without notice

Video Inputs

Program Input

Quantity	1 Program Input, relay bypass protected to first Program
Output	
Signal Type	SMPTE 259-M, Serial digital video (4:2:2), automatic equalization and reclocking
EDH	Automatic EDH detection, with error LEDs
Data Rate	270 Mb/s
Connector	BNC, per IEC 169-8
Impedance	75Ohm
Return Loss	18dB to clock frequency
Level	800mV 10%
Common Mode	30Vp-p, up to 60Hz
Reference Input	Automatic lock to incoming program feed. External composite sync input upon loss of Program signal (NTSC/PAL).

Video Outputs

Serial Outputs

Quantity	2 Program outputs, 2 Preview outputs
Signal Type	SMPTE 259-M, Serial digital video (4:2:2)
EDH	Automatic EDH insertion
Data Rate	270Mb/s
Connector	BNC, per IEC 169-8
Impedance	75Ohm
Return Loss	18dB to clock frequency
Level	800 mV 10%
DC Offset	0V 0.5V
Rise&Fall Time	400-700ns (measured at 20-80% amplitude) Overshoot
% of amplitude	

Composite Analog Outputs (3701CE)

Quantity	1 each Program and Preview outputs
Signal Type	NTSC, PAL
Connector	BNC, per IEC 169-8
Impedance	75Ohm
Level	1.0 Vp-p

Keyer

Dual internal 12 bit digital linear keyers

Remote Panel

Interface	Leitch XY Bus protocol 75W loopthrough BNC 1,500 ft maximum distance
Physical	Desktop or flush mount Width: 11.9" (303mm) Height: 4.4" (110mm) Depth: 2" (51mm)

Control

Serial

Type	RS-232, 38,400 baud, 8 bit, no parity
Connector	DB9, Female
Functionally	Logo and Font Download and Upload Full system automation control

GPI

Type	Contact closure to ground, TTL levels
Connector	DB15 female, high-density
Functionality	Logo select, keyer cut, fade, animation/timeline run

Environmental

Size	1RU, 1.75"H x 19" W x 13.5" D
Weight	8lb / 3.25kg
Power	95 - 265 VAC, 47 - 63 Hz, 50 Watt
Temperature	5 - 50C ambient, forced air cooling
Approvals	designed to meet UL, CSA, VDE, CE

ORDERING INFORMATION

MGI-3701-36	4:2:2 Motion Logo Generator with 36MB memory
MGI-3701-72	4:2:2 Motion Logo Generator with 72MB memory

Options

3701VC-06	4:2:2 Video Capture module with 6 MB memory
3701VC-18	4:2:2 Video Capture module with 18 MB memory
3701VC-36	4:2:2 Video Capture module with 36 MB memory
3701VC-72	4:2:2 Video Capture module with 72 MB memory
3701CE	Composite Encoder
3701TT	Time and Temperature module
1302TT-PROBE	Outdoor Temperature Probe
1302TT-SHIELD	Temperature Probe Radiation Shield