# Studio and Post Production

#### Hardware

System 6000 Mastering 6000 Reverb 6000 Reverb 4000 M3000 FireworX M-One XL D-Two Finalizer 96K P2 Finalizer Express M350 C300 C400 XL



# The TC Heritage

It's good to be known, but known to be good is more important. "Known Good" is a suitable description of all TC processors, and the reason why machines such as TC 2290 and M5000 are still reference designs 20 years after their introduction.

Only an autonomous processor, independent of a computer OS or host program, can be "known good" for longer than a few months. In our hardware devices, we take the responsibility for making your audio results repeatable - and deliver the tools to make them superior in any price-range. Year after year.



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### System 6000 – An Industry Milestone

While System 6000 won the prestigious TEC award in the year 2000, its software and processing capabilities have developed immensely since then - a development path offering System 6000 users a wealth of free additions and new license possibilities.

With such a pool of additional processing to choose from, System 6000 today offers two distinctively different entry points: Reverb 6000 and Mastering 6000. Naturally, Reverb 6000 and Mastering 6000 can both be expanded with optional algorithms, retaining the well known license-based structure.

Multiple Mastering 6000 and Reverb 6000 units can be connected in a network, creating a huge pool of processing power – all available at one place or shared between rooms. How the lines are drawn can be changed at the push of a button, allowing resources to always reflect the needs of the moment. The ease of control will be apparent when using the TC Icon Remote or its software equivalents for Mac or PC. The System 6000 is fully compliant with networking, sharing of processing resources and time code automation or built in workstation automation.

The System 6000 family do not only provide the best possible environment and routing for the algorithms running internally, they also improve surrounding equipment by safeguarding overall studio timing, and by reporting even the slightest problem in digital interfacing, instead of ignoring slips and glitches that might not be heard at first.





"Those who have used one will by now be slavering at the prospect of the bits they haven't yet tried, while those who haven't should be even more desperate to get their hands on one. It's the guv'nor."

Dave Foister, Audio Media (European Edition)

# Mastering 6000 – Turn a Master into a Masterpiece

Mastering 6000 is packed with a choice selection of precision tools for multiple mono, stereo and multichannel processing. Up to four different Engines may be used simultaneously, for instance four 5.1 dynamics processors, two stereo and two 5.1, or any other combination you like.

New limiting and compression algorithms make their debut with the introduction of Mastering 6000, while all of the legendary processing from Reverb 6000 and optional licenses can be purchased or leased as required.

### MASTERING





### Reverb 6000 - Halls of Fame

Containing the entire reverb palette developed by TC Electronic, Reverb 6000 is a four engine reverb monster. It delivers the finest, wildest and most research-intensive spatial effects found in the audio industry today.

Reverb 6000's impeccable timing and resolution are simply in a league that sets it apart from any previous reverb processor in history. It features award-winning VSS reverbs, effect reverbs, wild delay and boundary effects for mono, stereo, LtRt, 5.1 and 6.1 formats, plus the best algorithms and presets from the classic M5000. All of the excellent algorithms from Mastering 6000 and other optional licenses can be purchased or leased as required.





### Reverb 4000 - The Offspring of a Giant!

#### The Stereo Incarnation of System 6000

Reverb 4000 is the first new technology main stereo reverb in a decade. Its broad palette spans from new state-of-the-art reverbs to world-renowned classics, and includes the best stereo reverbs and presets from System 6000 and M5000.

#### Studio Reverb Par Excellence

The quest for depth, localization, spaciousness and character is paramount when working with music. Reverb 4000 gives pro studios a definite reverb and spatial advantage and complements any large-scale mixing console. For the first time it is truly possible to process a composite stereo source or to render credible spaces onto two discrete sources.

#### The Ease of Reverb - At the Venue

From the front panel you have instant access to key parameters – locating presets from System 6000, M5000 and vintage devices is a breeze with the dedicated search function. Never before has a main Reverb provided so many colors on the palette – switch between Character, Glory and Vintage Reverb effects at the push of a button.

#### **Mastering Image**

Reverb 4000 is built on a 48 bit processing platform, and may therefore maintain bit transparency when digital interfacing is used. Contrary to other reverbs, the unit doesn't need to sit in an insert loop but can pass the entire signal without any audio degradation, even if the master is 24 bit resolution at 96 kHz sampling.



#### Features

True stereo reverbs from the System 6000 > New pristine stereo reverb > Favorite presets and algorithms from the M5000
 Realistic environments from a closet to a canyon > VSS-4, source-based reverb providing rooms with character > Classic reverbs providing polished sustain > Vintage reverb emulations including EMT 250 > Instant access user interface > 44.1 to 96kHz sample rates and 24 bit processing > One engine, massive SRAM, no compromise design > Digital and analog wide dynamic range design > PC/Mac ICON editor program included > 24 bit AES/EBU, TOS-Link, S/PDIF, ADAT and Analog I/O



Control the Reverb 4000 directly from the USB port of your Mac or PC with the included TC Icon software.

### M3000 - Reverberation Taken to a Higher Level

#### Reverb with a Story to Tell

M3000 is a pristine, dual-engine reverberator and room simulator, and much more than just a sustain effect. It can tell stories. It lets you add room with a distinctive character. It lets you position a source in a room. Polished decay reverb is available as well, for the times where you haven't got more to say.

#### VSS3™

The groundbreaking VSS<sub>3</sub><sup>TM</sup> algorithm in M<sub>3</sub>ooo, with more than 20 man-years of development behind it, ensures ultimate realism, accurate early reflections, smooth decay and pitch accuracy. Furthermore, the technology has the ability to keep the signal 100% free of deteriorating modulation, yet still provides modulation as an option. VSS<sub>3</sub><sup>TM</sup> reverbs are available only on M<sub>3</sub>000 and System6000, but because of hardware constraints, not as plug-ins on DAW.



#### Features

► VSS<sup>TM</sup> 3 / VSS<sup>TM</sup> FP technology ► 600 high-grade factory presets: Halls, Rooms, Ambience, Plates, Springs, Post Small/Large, Post Indoor/ Outdoor and Post Specials ► Up to 300 User presets ► Intuitive user interface with instant preset recall ► compressor/ expander, de-esser, chorus & flanger, tremolo, phaser, delay, pitch shift, parametric EQ ► 24 bit A/D – D/A converters ► AES/EBU, S/PDIF, Optical TOS-Link & ADAT digital I/O

### FireworX – The Explosive and Radical Multi Effects Processor

#### Explore the Limits of your Imagination

The FireworX is the most radical sounding Multi-effects processor you have ever heard – a real challenge to your imagination. Take whatever you need from the broad palette of internal effects, drop it into the forge at the heart of the FireworX, and turn your music into a fireball of sound.

#### **Advanced Modulation Matrix**

With more than 20 different algorithms, 20 modulation sources, full tempo control combined with numerous routing possibilities, FireworX represents unusual effects beyond the capability of an average processor. The 12 effect blocks are configured as "stand-alone" boxes and can be controlled as such.



#### Features

► 24 bit A/D – D/A converters ► AES/EBU, S/PDIF, optical TOS-Link & ADAT digital I/O ► Presets: 400 factory/200 user

#### A Broad Palette of Effects

- ► Vocoder ► Synth generator ► Formant filter ► Delay ► EQ ► Reverb ► Ring modulator ► Chaos generator ► Dynamic ► Chorus
- ► Filters ► Pan ► Pitch shift ► Distortion

### **Dual Effects Processor - Truly Flexible Reverbs and Effects**

#### Flexibility without Compromising Sound

Use the M•One XL to run two of the best sounding reverbs or other quality effects simultaneously. Individualize your sound with the vast number of possible settings. Bring new life to your mixes with TC's unique compressor and limiter algorithms. You can add incredible delays, wide chorus or enhance the details of your source material with the parametric equalizers.

#### **Reverbs Especially Suited for Live Applications**

The XL reverb technology benefits from the TC reverb heritage and takes advantage of both complex early reflection patterns and dense Reverb decays in order to bring more natural reverbs to all applications.

#### Ease of Use

M•One XL is incredibly easy to use. With the four set-up buttons, every function is just a few taps away. The factory presets can be edited quickly to achieve any desired outcome.



#### Features

Enhanced early reflections & reverb tails ► Astonishing reverb density ► Natural small rooms for ambience ► 25 incredible TC effects: XL reverbs, chorus, tremolo, pitch, delay, dynamics and more ► XLR connectors – Dual I/O ► Analog-style user interface
 Presets: 200 factory/100 user ► Dual-engine<sup>TM</sup> design ► 24 bit A/D-D/A converters ► 24 bit S/PDIF digital I/O, 44.1-48kHz

24 bit Internal processing

### D-Two – Multitap Rhythm Delay – The Best Delay Available!

#### **Musical Rhythm Tap Feature**

Our heritage of classic delays inspired us to introduce D-Two, a dedicated Delay featuring the truly musical Rhythm Tap feature: Not only tempo, but actual rhythm patterns can be tapped in directly – or quantized according to a specific tempo and subdivision.

#### **Six Unique Direct-Access Features**

- Spatial extra wide Delay
- Ping-Pong Pick any of five patterns and set the relationship between Panning speed and Delay tempo
- Reverse Reverse Delay
- Dynamic Set Release Time and Threshold to let the Input signal control the level of Delay
- Chorus Or Flanger? Hit one key and you have instantly added it to your Delay
- Filter Increase filtering as repeats decay



#### Features

Multitap Rhythm Delay ► Absolute Repeat Control ► Up to 10 seconds of Delay ► Presets: 50 Factory/100 User ► 24 bit A/D-D/A Converters ► 24 bit S/PDIF digital I/O, 44.1-48kHz ► 1/4" Jacks Dual I/O ► 24 bit Internal Processing

# Finalizer 96K – Powerful Tools and Advanced Features with a Punch

#### Professional Mastering – Extensive and Complete Range of Controls

Combining powerful 96kHz processing tools with advanced features, Finalizer™ 96K puts the world of professional and home mastering within reach of every studio – large or small. Finalizer™ 96K gives you the extensive and complete range of controls you need to add the finishing touch to your mix.

#### Use the Wizard and Get Immediate Optimal Settings

The Finalizer™ 96K features a variety of analyzer functions such as Phase Correlation Meter, Peak Hold Meter and Calibration Tone Generator. Use the wizard function for immediate optimal setting by answering just a few basic questions about your source material and the type of processing you require. Insert internal effects if you want to refine e.g. the overall EQ before compressing the signal.

#### 24 bit / 96 kHz Performance

Finalizer 96K features 24 bit/96 kHz resolution A/D and D/A converters, and it is capable of performing Up and Down sample rate vonversion at any rate between 32 and 96 kHz. Finalizer96 even allows you to complement its digital processing by inserting an analog equalizer or compressor into a digital signal-path.



#### Features

- ► Multi-band compressor ► Multi-band expander ► Multi-band limiter ► 5-band parametric EQ ► De-esser/dynamic EQ
- MS encoder/decoder ► Two simultaneous Insert blocks ► Real-time full up- and down-sampling (enter any rate exit any rate!)
  Presets: 30 factory/128 User ► 24 bit/96kHz A/D-D/A converters ► Optical ADAT I/O ► AES/EBU, S/PDIF and TOS-link digital I/O 96kHz ► Multi-band spectral stereo image control ► Mono, stereo or Inverse dithering from 8-22 bit ► Digital radiance generator™
  Wordclock input

### P2 – Loudness Control and Limiter for Broadcast and Post

P2 is a Realtime Loudness Controller, 5-Band Processor and Limiter designed for use in Digital Broadcast and Post Production. The unit handles Stereo and Dual Mono, and features one-key set-and-forget operation, while keeping hundreds of presets and parameters available for a system installer.

Units are easily cloned, facilitating maintenance of a large studio complex, and hundreds of machines may be remotely monitored and controlled from, for instance, a station's headquarter. Ease of use is combined with 48 bit internal precision, upsampled limiting and high headroom, so maximum audio quality is always obtained, even under non-ideal input conditions. Up to 8 presets can be instantly recalled using GPI. For expert presetting, remote control and SNMP signaling, a PC may be used to run the lcon program included. P2 comes pre-loaded with a wide variety of international standard presets to be used out of the box, or as starting points for further adjustments. Balanced and unbalanced AES/EBU I/O is standard, and sample rate conversion can be invoked when using digital inputs.

Analog I/O also come as standard. The 24 bit converters are scaled in the analog domain, with scaling under preset control, to minimize noise and maximize headroom under all operating conditions. P2 is configured for hardware bypass on the analog I/O's in case of a power failure. Digital hardware bypass may be ordered as an option.





With the PC ICON editor, presets can be tailor-made for a specific studio facility or broadcast station.

#### Compatibility with DB4 and DB8

P2, DB4 and DB8 offer a scalable approach to Loudness Control and Limiting, where the same settings may be applied in all three processors to handle a varying number of audio channels. Consistent settings are important in order to maintain a well-defined, processing free window across all broadcast platforms from HD over IP to mobile TV. P2 can process two mono or one stereo channel, DB4 double this amount, and DB8 double again. DB4 and DB8 additionally accomodate multichannel processing, which P2 does not.

For further information about DB4 and DB8, please refer to the Broadcast brochure

#### For Audio Rookies and Experts

P2 includes a variety of presets based upon standards from around the world. With the included PC ICON editor, presets can be tailor-made for a specific studio facility or broadcast station. Presets and entire P2 units can quickly be cloned to easily maintain single or multi-studio environments. The front panel and settings can be fully locked, or operator editing may be allowed to a certain degree.

#### Features

New international broadcast presets adhering to national and international standards > Five band level optimizer > New TC DXP detail enhancement mode > Stereo and dual mono operation with enhanced mono conversion > US/EU level conversion > Wizard adaptive process function > Stereo enhancer > Alignment delay, filters and EQ > Instant preset recalls for transmission and linking
 Presets for real-time loudness control > AES/EBU and S/PDIF digital I/O > Built-in sample rate conversion > External word clock input > 48 bit internal processing throughout > 24 bit A/D - D/A converters scalable with presets > Analog inputs handle up to +28dBu

# Finalizer Express – Think Fast – Deliver the Heavyweight Mastering Knock-Out

#### Multi-award winning mastering technology

The Finalizer™ Express is a fast and efficient way to turn your mix into a professional master! Based upon TC's Multi-award-winning mastering technology, it delivers the finishing touches of clarity, warmth and punch to your mix.

#### **Refine your Tracks Using Powerful Tools**

Insert the Finalizer™ Express between the stereo output of your mixer or workstation and your master recording media to refine your tracks with it's powerful mastering tools, adding real energy to the mix. Punching up your mix using the fast, intuitive user interface delivers the ultimate sound quality you deserve. Spectral balance is improved, bass is tightened, the level is optimized and your mix sounds like a finished CD.



#### Features

► Multi-band compressor ► Compressor matrix for 25 variations in style and ratio ► Spectral balance controls ► Prevent "overs" from occurring with soft clipping ► Automatic make-up gain ► 24 bit A/D – D/A converters ► 16 and 20 bit dithering ► AES/EBU, S/PDIF & optical TOS-Link digital I/O ► High resolution LED metering of I/O & multi-band gain reduction

### M350 – Depth & Perspective Redefined

#### **Reverbs & Effects with seamless DAW integration**

With the VST compatible software editor, M350 offers seamless control and editing integration with your favorite DAW system. Through the included editor, parameters and preset recalls may be fully automated or real-time controlled at your convenience. In addition to the perfect studio fit, M350 features a front panel user interface that is optimized for speedy operation, giving you total and easy control during live performances. The effects combinations of the two engines are endless, and the dual input mode even allows individual input and utilization of the two effects engines.

#### Hands-on design with helpful auto sensing

You have direct and easy access to all important parameters and a simple yet highly effective preset display gives you instant overview of your current selection. The M350 comes with TC quality converters and processing in 48 kHz 24-bit, and a digital auto sensing features ensures seamless integration with digital inputs, and there's even an internal auto sensing power supply that eradicates the need for clumsy wallwarts.



#### 15 TC Quality Reverbs

TC Classic Hall > Cathedral > Vocal Reverb Live Vocal > Hall Acoustic > Drum Ambience > Drum Room > Ambience > Living Room
 Nearfield > Damped Room > Silver Plate > Gold Plate > Spring Vintage > Live Stage

#### Legendary TC Effects

- ▶ Comp ▶ Hard Comp ▶ De-Esser ▶ Smooth Chorus ▶ Lush Chorus ▶ Inst. Flanger ▶ Tremolo ▶ Vintage Phaser ▶ Smooth Phaser
- Delay Slapback > Delay Pingpong > Soft Delay > Triplets Delay > Studio Delay > Dynamic Delay

#### Features

Full DAW integration through VST/AU compatible editor > 15 true and stunning stereo reverbs > 15 legendary effects > 5 seconds of delay > 256 multi-effect/reverb presets + 99 user preset locations, a total of 355 presets > Internal power supply – no wall-wart!
 Dual send/return & serial style setups > Auto-sensing 24 bit S/PDIF digital I/O, 44.1-48kHz > 24 bit A/D-D/A converters > 24 bit internal processing > Preset display > Tap tempo > MIDI In/Out > MIDI clock tempo sync



With the included software editor, parameters and preset recalls may be fully automated or real-time controlled.

# C300 – Compression beyond limits

#### Dual Stereo Gate/ Compressor with the Sound of TC

C300 is a dual engine dynamics processor that gives you superior compression/limiting and gate/expansion. C300's new sourcebased architecture takes the drudgery out of compression and lets the box do the work for you in state-of-the-art TC quality with an extremely intuitive and straightforward user interface.

#### New Style Compression and Optimized Presets

Based on parallel compression technology you get a completely new approach to working with compression. Take a compressed signal and mix it with a dry signal and enhance all details in the music. The C300 gives you tailor-made source-based presets and you have total access to intelligent TC full-band or multiband technology.



#### Features

► Dual engine compressor or gate ► 16 source specific compression & gate presets ► Multi band compressor – for maximum transparency ► Precision gating – ultra fast and click free ► Brickwall limiting for peak stop and hot levels ► Instant operation – select preset and go! ► Digital S/PDIF I/O – for digital console connection ► Parallel compression – for that extra punch in your drumsound ► High resolution input and gain reduction metering ► True dual mono, stereo or serial operation

### C400XL – Source-based Gate | Compressor

#### Crucial tasks faster

The C400XL is a supreme Dual Gate I Compressor specially designed for audio professionals on the road as well as in the studio. Combining award-winning multiband compression technology with an extremely fast and intuitive user interface as well as a super silent click free gate, the C400XL is made for the uncompromising sound engineer.

#### Multiband dynamics technology

The C400XL uses advanced TC Electronic multiband dynamics technology to compress and adapt to any source - from vocals and percussion to guitars and even keyboards. The inherent transparency of the multiband compressor brings out the qualities of the source material, yet secures a firm and consistent level at all times. The optimized and super-fast gate offers a click free and high precision gating of any source.

#### Three strikes and you're in

The C400XL stands out in three distinct areas that make it the ideal unit for demanding live and studio use. First there is the sound quality – this quality is ensured by source-based multiband compression and ultra fast gating. Another great aspect of the C400XL is its versatility – adapt to any source, analog or digital, decide on gate, compression or a combination, and C400XL is up for the task at hand. And finally there is the intuitive, fast use of C400XL – source-based compression, intuitive user interface and a mix knob for parallel compression makes for a fast, professional unit.

#### Intuitive - yet advanced

C400XL features a TC Electronic exclusive 'Mix' knob allowing parallel compression without complicated routing schemes. The unique Parallel compression will lift hidden details in every vocal or drumkit track. To assure smooth operation, C400XL is equipped with high resolution input, gain reduction metering and threshold LED indication. Choose between true dual mono for superior channel separation, stereo or serial operation. C400XL features brickwall limiting for peak stop and hot levels prevention.

#### Analog and digital connectors

C400XL is the ideal choice for parallel compression, gating and/or compressor applications. A C400XL channel transforms from multiband compressor to ultra fast gate and back at a flick of a switch. Gate and compressor functions can be serial or parallel at the choice of the engineer, thus allowing e.g. awesome combinations of compressor and gate on a snare drum giving that tight and snappy impact sound. Balanced Analog (XLR) and Digital AES/EBU (XLR) connectors make C400XL the perfect solution for any pro sound engineer looking for high-end compression/gates to complement his analog or digital setup.



#### Features

Balanced analog XLR > Balanced digital (AES/EBU) > Sourcebased Multiband compression > 'Mix' knob for direct parallel compression > Precision gating - ultra fast and click free > De-essing > Dual engine compressor or gate > High resolution input and gain reduction metering > Threshold LED indication > True dual mono, stereo or serial operation > Brickwall limiting for peak stop and hot levels > Dual band expansion for non-percussive sources

### Ultimate Multichannel Processing Platform MASTERING 5000 REVERB 5000



6			
Digital Inputs and Outputs		Frequency Response DIO:	DC to 23,9 kHz +- 0,01 dB @ 48 kHz,
Connectors:	D-SUB, 25 pole (8 channels AES/EBU I/Out)		DC to 47.9 kHz +- 0.01 dB @ 96 kHz
Formats:	AES/EBU (24 bit)	PCMCIA Interface	
Word Clock Input:	BNC, 75 Ohm or Hi-Z, 0.6 to 10 Vpp	Connector:	PC Card, 68 pin type 1 cards
Internal Sample Rate:	96 kHz, 88.2 kHz, 48.0 kHz, 44.1 kHz	Standards:	PCMCIA 2.0, JEIDA 4.0
Internal Clock Precision:	+/- 30 ppm	Floppy Drive:	DOS compatible, 3 1/2", 1.44 Mb
Jitterrejection at External		Control Interface	
Sample Rates:	30 to 34 kHz, 42.5 to 45.5 kHz, 46.5 to 48.5 kHz,	MIDI:	In/Out/Thru: 5 Pin DIN
	85 to 91 kHz and 93 to 97 kHz.	GPI, Pedal, Fader:	Phone jack, 0 Ohm to 50 kOhm
Rejection Filter (4'th order):	< -3 dB @ 50 Hz	Remote:	Custom MIDI In & Out
	<-65 dB @ 500 Hz	SMPTE:	Input for Cuelist Management
	<-100 dB @ 1.4 kHz	Ethernet:	10/100 Mbits/s, Base-T
Rejection Filter Peak (jitter gain):	< 1 dB @ 2 Hz	General	
Intrinsic Interface Jitter:	< 1 ns peak, BW : 700 Hz to 100 kHz	Dimensions:	3 1/2 x 19 x 12 inches
Digital Output Phase:	< 3 % of sample period	Weight:	19 lbs. (8.6 kg)
Input variation before		Mains Voltage:	100 to 240 VAC, 50 to 60 Hz (auto-select)
Sample Slip:	+27 % / -73 % of sample period	Power Consumption:	45 watts
Output Dither:	HPF/TPDF dither 8-24 bit, mono, stereo, inverted	Warranty parts and Labor:	1 year
Processing Delay:	0.15 ms + 0.21 ms per engine @ 48 kHz,		
	0.07 ms + 0.1 ms per engine @ 96 kHz		



### ADA 24/96 Analog I/O

<u></u>			
Analog Input		Impedance Balance:	>60 dB, @ 20-20kHz
		Signal Balance:	> 40 dB, @ 20-20kHz
Connectors:	XLR balanced (pin 2+, pin 3-)	· · ·	
Impedance:	10/3 kohm (Balanced/unbalanced):	Selectable Full Scale Output level:	6/0, 12/6, 18/12, 24/18 dBu (Balanced/unbalanced)
		· · · · · ·	
Selectable Full Scale Input level:	6, 12, 18, 24, 30 dBu	Dynamic Range (A-Out: 18, 24 dBu):	> 113 dB (unweighted), BW: 20-20kHz
· · · · · · · · · · · · · · · · · · ·		THD+N:	< -95 dB @ 1 kHz, -3 dBFS
Dynamic Range (A-In: 12, 18, 24,			
30 dBu):	> 113 dB (unweighted), BW: 20-20kHz		
THD+N:	< -105 dB @ 1 kHz, -3 dBFS	Frequency Response,	Input Sample Rate:
		(*with linear filter):	@32 kHz @44.1* kHz @48* kHz @96 kHz
Frequency Response,		+0/-0.3 dB:	4.6 Hz - 14.8 kHz 4.6 Hz - 19 kHz 4.6 Hz - 19 kHz 4.6 Hz - 19 kHz
(*with linear filter):	Output Sample Rate:	+0/-3 dB:	0.7 Hz - 15.6 kHz 0.7 Hz - 20.5 kHz 0.7 Hz - 21.2 kHz 0.7 Hz - 44 kHz
	@32 kHz @44.1* kHz @48* kHz @96 kHz		
+0/-0.1 dB:	1.2 Hz - 14.8 kHz 1.2 Hz - 19.9 kHz 1.2 Hz - 20.3 kHz 1.2 Hz - 44.4 kHz	Crosstalk:	< -110 dB, 20 Hz to 20 kHz
+0/-3 dB:	0.2 Hz - 15.6 kHz 0.2 Hz - 20.6 kHz 0.2 Hz - 21.2 kHz 0.2 Hz - 46.8 kHz	D to A Conversion:	24 bit (Multi-bit delta sigma sampling at 4.1/5.6/6.1/6.1
			MHz )
Crosstalk:	<-120 dB, 20 Hz to 20 kHz	Selectable Sample Conversion	
		Filters	
CMRR (A-In: 24 dBu, Rs: 2 x 20 ohm):	>80 dB@ 50/60 Hz &>90 dB @ 1 kHz	In/Out Sample Rate 32/96 kHz:	Fixed filter
A to D Conversion:	24 bit (Dual bit delta sigma sampling at 4.1/5.6/6.1/6.1	In/Out Sample Rate 44.1/48 kHz:	Filter choices: Linear, Natural, Vintage, Bright & Standard
	MHz)		
Analog Output			
Connectors:	XLR balanced (pin 2+, pin 3-)		
Impedance:	40/20 ohm (Balanced/unbalanced)		

### SYSTEM6000 TC Icon

Display Type:	6,5" TFT active matrix color LCD display, 640 x 480 pixels
	resolution. High luminance (300 cd/m2, typ.)
Touch Screen:	Resistive, 20 gram activation force
Faders:	Six (6), 90mm motorized with touch sensitivity
Connection:	36-pin MDR connection for Remote CPU 6000
General	Black anodized aluminum
Finish:	Stand plate in brushed stainless steel
Dimensions:	D: 279mm W: 198mm Hfront: 33mm Hback: 100mm
Weight:	5,56 lb (2,51 kg)
	Display Type: Touch Screen: Faders: Connection: General Finish: Dimensions: Weight:

### SYSTEM6000 Remote CPU 6000

r –		
	CPU:	Embedded Cyrix GXM-200 processor
	System Disc:	32MB CompactFlash Card
	System Memory:	32MB SODIMM Ram
	Operating System:	Windows NT embedded version 1.0
	Connections:	10/100 Mbits/s, Base-T, IEEE 802,3 pico protocol
	Ethernet Interface:	compatible. RJ-45 connector
	USB Interface:	Two Universal Serial Bus ports, USB 1.0 compliant
	Keyboard/Mouse:	Mini-DIN connector supports standard PC/AT keyboard
		and a PS/2 mouse.
	Remote:	36-pin connection for TC Icon
	General	Black anodized aluminum face plate
	Finish:	Painted and plated steel chassis
	Dimensions:	1,75" x 19" x 8,2" inches (483 x 44 x 195 mm)
	Weight:	4,7 lb. (2,13 kg)
	Mains Voltage:	100 to 240 VAC, 50 to 60 Hz (auto-select)
	Power Consumption:	50 watts
	Backup Battery Life:	>10 years





Power Input Balanced Balanced Optical ADAT Word- AES/EBU S/PDIF MIDI USB 100 - 240V Analog Inputs Analog Outputs & TosLink Clock Input/ In/Out/Thru Power Switch XLR XLR RCA Output Output

C Digital Inputs and Outputs		Dynamic Range:	>+100 dB (unweighted, BW = 22KHz), >+104 dB(A)
Connectors:	XLR (AES/EBU)	THD:	-82 dB (0.008 %) @ 1 kHz, -6 dBFS (FS @ +16 dBu)
	RCA Phono (S/PDIF)	Frequency Response:	10 Hz to 20 kHz : +0/-0.5 dB @ 48 kHz
	Optical (Tos-link, ADAT)		10 Hz to 45 kHz : +0/-3 dB @ 96 kHz
Formats:	AES/EBU (24 bit),	Crosstalk:	<-60 dB, 10 Hz to 20 kHz
	S/PDIF (24 bit), EIAJ CP-340, IEC 958,		typical –90 dB @ 1 kHz
	EIAJ Optical (Tos-link),	EMC	
	ADAT Lite pipe (24 bit)	Complies with:	EN 55103-1 and EN 55103-2
Output Dither:	HPF/TPDF dither 8-20 bit, independent dithered Output		FCC part 15, Class B
Word Clock Input:	RCA Phono, 75 Ohm, 0.6 to 10 Vpp		CISPR 22, Class B
Sample Rates:	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz	Safety	
Processing Delay:	0.2 ms @ 48 kHz	Certified to:	IEC 60065, EN 60065, UL 6500 and CSA E65
Frequency Response DIO:	DC to 23.9 kHz ± 0.01 dB @ 48 kHz		CSA File#LR108093
· · · ·	DC to 47.9 kHz ± 0.01 dB @ 96 kHz	Environment	
Analog Inputs		Operating Temperature:	32° F to 122° F (0° C to 50° C)
Connectors:	XLR balanced (pin 2 hot)	Storage Temperature:	-22° F to 167° F (-30° C to 70° C)
Impedance:	20 kOhm	Humidity:	Max. 90 % non-condensing
Max. Input Level:	+22 dBu (balanced)	PCMCIA Interface	
Min. Input Level (for 0 dBFS):	-10 dBu	Connector:	PC Card, 68 pin type 1 cards
Sensitivity:	@ 12 dB headroom: -22 dBu to +10 dBu	Standards:	PCMCIA 2.0, JEIDA 4.0
A to D Conversion:	24 bit (6.144 MHz delta sigma @ 48/96 kHz)	Card Format:	Supports up to 2 MB SRAM
A to D Delay:	0.8 ms @ 48 kHz, 0.4 ms @ 96 kHz.	Control Interface	
Dynamic Range:	>103 dB (unweighted, BW = 22 kHz), >106 dB(A)	MIDI:	In/Out/Thru: 5 Pin DIN
THD:	-95 dB (0,0018 %) @ 1 kHz, -6 dBFS (FS @ +16 dBu)	GPI, Pedal, Fader:	1/4" phone jack
Frequency Response:	10 Hz to 20 kHz : +0/-0.2 dB @ 48 kHz	General	
	10 Hz to 45 kHz : +0/-1 dB @ 96 kHz	Finish:	Anodized aluminum front
Crosstalk:	<-80 dB, 10 Hz to 20 kHz		Plated and painted steel chassis
	typical –100 dB @ 1 kHz	Display:	56 x 128 dot graphic LCD
Analog Outputs		Dimensions:	19" x 1.75" x 8.2" (483 x 44 x 208 mm)
Connectors:	XLR balanced (pin 2 hot)	Weight:	5.2 lb. (2.35 kg)
Impedance:	100 Ohm (active transformer)	Mains Voltage:	100 to 240 VAC, 50 to 60 Hz (auto-select)
Max. Output Level:	+22 dBu (balanced)	Power Consumption:	<20 W
Full Scale Output Range:	-10 dBu to +22 dBu	Backup Battery Life:	>10 years
D to A Conversion:	24 bit (6.144 MHz delta sigma @ 48/96 kHz)	Warranty parts and labor:	1 year
D to A Delay:	0.57 ms @ 48 kHz, 0.28 ms @ 96 kHz		

#### M3000 STUDIO REVERB PROCESSOR



Digital Inputs and Outputs			
Connectors:	XLR (AES/EBU), RCA Phono (S/PDIF)	Dynamic Range:	>100 dB (unweighted), >104 dB(A)
	Optical (Toslink, ADAT)	THD:	-86 dB (0.005%) @ 1 kHz, -6 dBFS (FS @ +16 dBu)
Formats:	AES/EBU (24 bit), S/PDIF (20 bit), EIAJ CP-340,	Frequency Response:	10 Hz to 20 kHz: +0/-0.5 dB
	IEC 958, EIAJ Optical (Toslink), ADAT Lite pipe	Crosstalk:	<-60 dB, 10 Hz to 20 kHz typical -90 dB @ 1 kHz
Output Dither:	HPF/TPDF dither 8-24 bit	EMC	
Word Clock Input:	RCA Phono, 75 Ohm, 0.6 to 10 Vpp	Complies with:	EN 55103-1 and EN 55103-2. FCC part 15, Class B.
Sample Rates:	44.1 kHz, 48 kHz		CISPR 22, Class B
Processing Delay:	0.2 ms @ 48 kHz	Safety	
Frequency Response DIO:	20 Hz to 23,9 kHz +0,01/-0,1 dB @ 48 kHz	Certified to:	IEC 65, EN 60065, UL 1419, CSA E65
Analog Inputs		Environment	
Connectors:	XLR balanced (pin 2 hot)	Operating Temperature:	32° F to 122° F (0° C to 50°C)
Impedance:	20 kOhm	Storage Temperature:	-22° F to 167° F (-30° C to 70°C)
Max. Input Level:	+22 dBu (balanced)	Humidity:	Max. 90% non-condensing
Min. Input Level (for 0 dBFS):	-10 dBu	PCMCIA Interface	
Sensitivity:	@ 12 dB headroom: -22 dBu to +10 dBu	Connector:	PC card, 68 pin type 1 cards
A to D Conversion:	24 bit (1 bit, 128 times oversampling)	Standards:	PCMCIA 2.0, JEIDA 4.0
A to D Delay:	0.8 ms @ 48 kHz	Card Format:	Supports up to 2 MB SRAM
Dynamic Range:	>103 dB (unweighted), >106 dB (A)	Control Interface	
THD:	-95 dB (0,0018 %) @ 1kHz, -6 dBFS (FS @ +16 dBu)	MIDI:	In/Out/Thru: 5 Pin DIN
Frequency Response:	10 Hz to 20 kHz: +0/-0.2 dB	GPI, Pedal, Fader:	1/4" phone jack, 0 Ohm to 50 kOhm
Crosstalk:	<-80 dB, 10 Hz to 20 kHz typical -100 dB @ 1 kHz	General	
Analog Outputs		Finish:	Anodized aluminum front. Plated & painted steel chassis.
Connectors:	XLR balanced (pin 2 hot)	Dimensions:	19" x 1.75" x 8.2" (483 x 44 x 208 mm)
Impedance:	100 Ohm (active transformer)	Weight:	5.2 lb. (2.35 kg)
Max. Output Level:	+22 dBu (balanced)	Mains Voltage:	100 to 240 VAC, 50 to 60 Hz (auto-select)
Full Scale Output Range:	-10 dBu to +22 dBu	Power Consumption:	<20W
D to A Conversion:	24 bit (1 bit, 128 times oversampling)	Backup Battery Life:	>10 years
D to A Delay:	0.57 ms @ 48 kHz	Warranty Parts and labor:	1 year



Build Name      Dot      Marriely mask        III - III - CART      -CART      Marriely mask        III - CART      -CART      IIII - CART						
Routing modes	Balanced XLR Analog Inputs	Balanced XLR Analog Outputs	Digital In/Out AES/EBU	MIDI I/O	Power input. The internal switchmode power supply accepts from 100 to 240 VAC	

Digital Input and Output			
Connectory		Dynamic Range:	typ < -110 dB typ, 22 Hz to 22 kHz
Connector.		IHD:	typ < -94 dB (0.002 %) @ 1 kHz, +21 dBu+07-0.1 dB, 20
Formats:	AES/EBU (24bit)	Frequency Response:	Hz to 20 kHz
Sample Rates:	48 kHz. (44.1 kHz only @ Digital Input)	Crosstalk:	typ < -100 dB, 20 Hz to 20 kHz
Processing Delay:	0.08 ms @ 48 kHz		
Frequency Response DIO:	DC to 23.9 kHz ± 0.01 dB @ 48 kHz	Environment	
		Operating Temperature:	32° F to 122° F (0° C to 50° C)
Analog Inputs		Storage Temperature:	-22° F to 167° F (-30° C to 70° C)
Connectors:	XLR balanced (pin 2+, pin 3-)	Humidity:	Max. 90 % non-condensing
Impedance, Bal / Unbal:	20 kOhm / 11 kOhm		0
Max. Input Level @ 0 dBFS:	+21 dBu	Control Interface	
A to D Conversion:	24 bit, 128 x oversampling bitstream	MIDI:	In/Out: 5 Pin DIN
A to D Delay:	0.9 ms @ 48 kHz		
Dynamic Range:	Typ < -110 dB, 22 Hz to 22 kHz	General	
THD:	Typ < -102 dB (0.0008 %) @ 1 kHz, -1 dBFS	Finish:	Anodized aluminum front. Plated and coated steel chassis
Frequency Response:	+0/-0.1 dB, 20 Hz to 20 kHz	Meter:	2 x 6 LED's in each channel
Crosstalk:	Typ < -115 dB, 20 Hz to 20 kHz	Dimensions:	19" × 1.75" × 4.2"
			(483 x 44 x 105.6 mm)
Analog Outputs		Weight:	3.3 lb. (1.5 kg)
Connectors:	XLR balanced (pin 2+, pin 3-)	Mains Voltage:	100 to 240 VAC. 50 to 60 Hz
Max. Output Level:	+21 dBu	3-	(auto-select)
D to A Conversion:	24 bit, 128 x oversampling bitstream	Power Consumption:	<15 W
D to A Delay:	0.58 ms @ 48 kHz	Warranty parts and Labor:	1 year
			,







Power Input 100 - 240V	Balanced Balanced ADAT and Op XLR Inputs XLR Outputs TOS Link Wor In, Out F	tional Digital In/Out dclock AES/EBU, S/PDIF CA ADAT TOS	MIDI External In, Thru, Out Control Input
Analog Inputs		Sample Rates:	44.1 kHz, 48 kHz
Connectors:	XLR balanced (pin 2 hot)	Processing Delay:	0.2 ms @ 48 kHz
Impedance:	20 kOhm	Frequency Response DIO:	20 Hz to 23,9 kHz +0,01/-0,1 dB @ 48 kHz
Max. Input Level:	+22 dBu (balanced)	EMC	
Min. Input Level (for 0 dBFS):	-10 dBu	Complies with:	EN 55103-1, EN 55103-2 and Class B limits of
Sensitivity:	@ 12 dB headroom: -22 dBu to +10 dBu		FCC rules, part 15
A to D Conversion:	24 bit (1 bit, 128 times oversampling)	Safety	
A to D Delay:	0.8 ms @ 48 kHz	Certified to:	EN 60065, UL 1419
Dynamic Range:	>103 dB (unweighted), >106 dB (A)	Environment	
THD:	-95 dB (0,0018 %) @ 1kHz, -6 dBFS (FS @ +16 dBu)	Operating Temperature:	32° F to 122° F (0° C to 50° C)
Frequency Response:	10 Hz to 20 kHz: +0/-0.2 dB	Storage Temperature:	-22° F to 167° F (-30° C to 70° C)
Crosstalk:	<-80 dB, 10 Hz to 20 kHz, typical -100 dB @ 1 kHz	Humidity:	Max. 90 % non-condensing
Analog Outputs		PCMCIA Interface	
Connectors:	XLR balanced (pin 2 hot)	Connector:	PC Card, 68 pin type 1 cards
Impedance:	100 Ohm (active transformer)	Standards:	PCMCIA 2.0, JEIDA 4.0
Max. Output Level:	+22 dBu (balanced)	Card Format:	Supports up to 2 MB SRAM
Full Scale Output Range:	-10 dBu to +22 dBu	Control Interface	
D to A Conversion:	24 bit (1 bit, 128 times oversampling)	MIDI:	In/Out/Thru : 5 Pin DIN
D to A Delay:	0.57 ms @ 48 kHz	GPI, Pedal, Fader:	1/4" phone jack
Dynamic Range:	>100 dB (unweighted), >104 dB(A)	General	
THD:	-86 dB (0.005%) @ 1 kHz, -6 dBFS (FS @ +16 dBu)	Finish:	Anodized aluminum front.
Frequency Response:	10 Hz to 20 kHz: +0/-0.5 dB		Plated and painted steel chassis
Crosstalk:	<-60 dB, 10 Hz to 20 kHz, typical -90 dB @ 1 kHz	Display:	56 x 128 dot graphic LCD-display
Digital Inputs and Outputs	i	Dimensions:	19" x 1.75" x 8.2" (483 x 44 x 208 mm)
Connectors:	XLR (AES/EBU), RCA Phono (SPDIF),	Weight:	5.2 lb. (2.35 kg)
	Optical (Toslink, ADAT),	Mains Voltage:	100 to 240 VAC, 50 to 60 Hz (auto-select)
Formats:	AES/EBU (24 bit),SPDIF (24 bit), EIAJ CP-340,	Power Consumption:	<20 W
	IEC 958, EIAJ Optical (Toslink), ADAT Light pipe	Backup Battery Life:	>10 years
Output Dither:	HPF/TPDF dither 8-24 bit	Warranty Parts and labor:	1 year (3 years with returned warranty card)
Word Clock Input:	RCA Phono, 75 Ohm, 0.6 to 10 Vpp		







	Balanced Jack Analog Inputs	I Balanced Jack Analog Outputs	Digital S/PDIF Input/Output	I MIDI In, Thru, Out	External Control Input	l Power Input 100 - 240V
Digital Inputs and Outputs				D to	A Delay:	0.63 ms / 0.68 ms @ 48 kHz / 44.1 kHz
Connectors:	RCA Phono (	S/PDIF)		Dyna	mic Range:	104 dB typ, 20 Hz to 20 kHz
Formats:	S/PDIF (24 b	bit), EIAJ CP-340	), IEC 958	THD		typ <-94 dB (0.002 %) @ 1 kHz, +20 dBu Output
Output Dither:	HPF/TPDF d	lither 24/20/16	/8 bit	Frequ	ency Response:	+0/-0.5 dB @ 48 kHz, 20 Hz to 20 kHz
Sample Rates:	44.1 kHz, 48	kHz		Cros	stalk:	<-100 dB, 20 Hz to 20 kHz
Processing Delay:	0.1 ms @ 48	kHz		EMC		
Frequency Response DIO:	DC to 23.9 kl	Hz ± 0.01 dB @	48 kHz	Com	olies with:	EN 55103-1 and EN 55103-2
Analog Inputs						FCC part 15, Class B, CISPR 22, Class B
Connectors:	1/4" phone ja	ack, balanced		Safe	ty	
Impedance, Bal / Unbal:	21 kOhm / 1	3 kOhm		Certi	fied to:	IEC 65, EN 60065, UL6500 and CSA E65
Max. Input Level:	+24 dBu			Envi	ronment	
Min. Input Level for 0 dBFS:	0 dBu			Oper	ating Temperature:	32° F to 122° F (0° C to 50° C)
Sensitivity:	@ 12 dB hea	droom: -12 dBu	to +12 dBu	Stora	ge Temperature:	-22° F to 167° F (-30° C to 70° C)
A to D Conversion:	24 bit, 128 x	oversampling bit	stream	Humi	dity:	Max. 90 % non-condensing
A to D Delay:	0.65 ms / 0.7	70 ms @ 48 kHz	/ 44.1 kHz	Cont	rol Interface	
Dynamic Range:	100 dB typ, 2	20 Hz - 20 kHz		MIDI		In/Out/Thru: 5 Pin DIN
THD:	typ < 92 dB (	(0,0025 %) @ 1	kHz	Peda	l:	1/4" phone jack
Frequency Response:	+0/-0.1 dB @	9 48 kHz, 20 Hz	to 20 kHz	Gene	eral	
Crosstalk:	<-95 dB, 20	Hz to 20 kHz		Finish	ו:	Anodized aluminum front
Analog Outputs						Plated and painted steel chassis
Connectors:	1/4" phone ja	ack, balanced		Displ	ay	23 character / 280 icon STN-LCD display
Impedance Balanced /				Dime	nsions:	19" x 1.75" x 8.2" (483 x 44 x 195 mm)
Unbalanced:	40 Ohm			Weig	ht:	4.1 lb. (1.85 kg)
Max. Output Level:	+20 dBu (bal	lanced)		Main	s Voltage:	100 to 240 VAC, 50 to 60 Hz (auto-select)
Output Ranges:	Balanced: 20	/14/8/2 dBu		Powe	er Consumption:	<15 W
	Unbalanced:	14/8/2 dBu		Warr	anty Parts and labor:	1 year
D to A Conversion:	24 bit, 128 x	oversampling bit	stream			



Balanced XLR Digital S/PDIF

Balanced XLR



l External

MIDI

I Power Input

	Analog Inputs Analog	og Outputs Input/Output	In, Thru, Out	Control Input 100 - 240V for Bypass
Digital Inputs and Outputs		Max. Output Level:		+20 dBu (balanced)
Connectors:	RCA Phono (S/PDIF)	Output Ranges:		Balanced: 20/14/8/2 dBu / Unbalanced: 14/8/2 dBu
Formats:	S/PDIF (24 bit), EIAJ CP-340, IEC 958	D to A Conversion:		24 bit, 128 x oversampling bitstream
Output Dither:	HPF/TPDF dither 24/20/16/8 bit	D to A Delay:		0.63 ms / 0.68 ms @ 48 kHz / 44.1 kHz
Sample Rates:	44.1 kHz, 48 kHz	Dynamic Range:		104 dB typ, 20 Hz to 20 kHz
Processing Delay:	0.1 ms @ 48 kHz	THD:		typ <-94 dB (0.002 %) @ 1 kHz, +20 dBu Output
Frequency Response DIO:	DC to 23.9 kHz ± 0.01 dB @ 48 kHz	Frequency Response:		+0/-0.5 dB @ 48 kHz, 20 Hz to 20 kHz
Analog Inputs		Crosstalk:		<-100 dB, 20 Hz to 20 kHz
Connectors:	XLR, balanced	Control Interface		
Impedance:	40 Ohm	MIDI:		In/Out/Thru: 5 Pin DIN
Max. Input Level:	+20 dBu (balanced)	Pedal:		1/4" phone jack
Min. Input Level (for 0 dBFS):	Balanced: 20/14/8/2 dBu	General		
Sensitivity:	Unbalanced: 14/8/2 dBu	Finish:		Anodized aluminum front. Plated & painted steel chassis
A to D Conversion:	24 bit, 128 x oversampling bitstream	Display:		23 character / 280 icon STN-LCD display
A to D Delay:	0.63 ms / 0.68 ms @ 48 kHz / 44.1 kHz	Dimensions:		19" x 1.75" x 8.2" (483 x 44 x 195 mm)
Dynamic Range:	104 dB typ, 20 Hz to 20 kHz	Weight:		4.1 lb. (1.85 kg)
THD:	typ <-94 dB (0.002 %) @ 1 kHz, +20 dBu Output	Mains Voltage:		100 to 240 VAC, 50 to 60 Hz (auto-select)
Frequency Response:	+0/-0.5 dB @ 48 kHz, 20 Hz to 20 kHz	Power Consumption:		<15 W
Crosstalk:	<-100 dB, 20 Hz to 20 kHz	Warranty Parts and labor		1 year
Analog Outputs				
Connectors:	XLR balanced (pin 2 hot)			
Impedance:	40 Ohm			





	Digital Input and Output		EMC	
	Connector:	RCA Phono (S/PDIF)	Complies with:	EN 55103-1 and EN 55103-2
	Formats:	S/PDIF (24 bit), EIAJ CP-340, IEC 958		FCC part 15, Class B, CISPR 22,
	Sample Rates:	44.1 kHz. (48 kHz only @ Digital Input)		Class B
	Processing Delay:	0.08 ms @ 48 kHz	Safety	
	Frequency Response DIO:	DC to 23.9 kHz ± 0.01 dB @ 48 kHz	Certified to:	IEC 65, EN 60065, UL6500 and CSA E60065, CSA
	· · ·			FILE #LR108093
	Analog Inputs		Environment	
	Connectors:	1/4" phone jack, mono sense	Operating Temperature:	32° F to 122° F (0° C to 50° C)
	Impedance, Bal / Unbal:	21 kOhm / 13 kOhm	Storage Temperature:	-22° F to 167° F (-30° C to 70° C)
	Max./Min. Input Level @ 0 dBFS:	+24 dBu / 0 dBu	Humidity:	Max. 90 % non-condensing
	Sensitivity Range @ 12 dB			
	headroom:	-12 dBu to +12 dBu	Control Interface	
	A to D Conversion:	24 bit, 128 x oversampling bitstream	MIDI:	In/Out: 5 Pin DIN
	A to D Delay:	0.70 ms / 0.65 ms @ 44.1 kHz / 48 kHz	Pedal:	1/4" phone jack
	Dynamic Range:	typ < -92 dB, 22 Hz to 22 kHz		
	THD:	typ < -90 dB (0.0032 %) @ 1 kHz, -1 dBFS	General	
	Frequency Response:	+0/-0.1 dB, 20 Hz to 20 kHz	Finish:	Anodized aluminum front
	Crosstalk:	typ < -100 dB, 20 Hz to 20 kHz		Plated and painted steel chassis
	Analog Outputs		Display:	2 x 7 segment + LED's
	Connectors:	1/4" phone jack	Dimensions:	19" x 1.75" x 4.2"
	Impedance Bal / Unbal:	40 Ohm / 20 Ohm		(483 x 44 x 105.6 mm)
	Max. Output Level:	+14 dBu	Weight:	3.3 lb. (1.5 kg)
	D to A Conversion:	24 bit, 128 x oversampling bitstream	Mains Voltage:	100 to 240 VAC, 50 to 60 Hz
	D to A Delay:	0.68 ms / 0.63 ms @ 44.1 kHz / 48 kHz		(auto-select)
	Dynamic Range:	typ < -105 dB typ, 22 Hz to 22 kHz	Power Consumption:	<15 W
	THD:	typ < -97 dB (0.0014 %) @ 1 kHz, +13 dBu	Warranty Parts and labor:	1 year
	Frequency Response:	+0/-0.5 dB, 20 Hz to 20 kHz		
	Crosstalk:	typ < -100 dB, 20 Hz to 20 kHz		
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	Power Input 100 - 240V Analog Inputs XLR Analog Outputs XLR	t.c. electronic	POPULATION POINT P PIN Sub D
Digital Inputs and Outputs		Dynamic Range:	>100 dB (unweighted), >104 dB(A)
Connectors:	XLR (AES/EBU),RCA Phono (S/PDIF)	THD:	-86 dB (0.005 %) @ 1 kHz, -6 dBFS (FS @ +18 dBu)
Formats:	AES/EBU (24 bit), S/PDIF (20 bit),	Frequency Response:	10 Hz to 20 kHz: +0/-0.5 dB
	EIAJ CP-340, IEC 958	Crosstalk:	<-60 dB, 10 Hz to 20 kHz, typical –90 dB @ 1 kHz
Output Dither:	HPF/TPDF dither 8-22 bit	EMC	
Word Clock Input:	BNC, 75 Ohm, 0.6 to 10 Vpp	Complies with:	EN 55103-1 and EN 55103-2
Sample Rates:	32 kHz, 44.1 kHz, 48 kHz		FCC part 15, Class B
Processing Delay:	0.5 ms @ 48 kHz		CISPR 22, Class B
Additional Delay :	0 to 400 ms at all sample rates	Safety	
Frequency Response DIO:	DC to 23.9 kHz ± 0.01 dB @ 48 kHz	Certified to:	IEC 60065, EN 60065, UL 6500 and CSA E65
Sample Rate Conversion			CSA FILE #LR108093
Type:	Asynchronous	Environment	
Dynamic Range:	120 dB	Operating Temperature:	32° F to 122° F (0° C to 50° C)
THD+N:	-106 dB 44.1 to 48 kHz @ 1 kHz, -2 dBFS	Storage Temperature:	-22° F to 167° F (-30° C to 70° C)
Input Rate Range:	31 kHz to 49 kHz	Humidity:	Max. 90% non-condensing
Analog Inputs		PCMCIA Interface	
Connectors:	XLR balanced (pin 2 hot)	Connector:	PC Card, 68 pin type 1 cards
Impedance:	20 kOhm (balanced)	Standards:	PCMCIA 2.0, JEIDA 4.0
Max. Input Level:	+27 dBu (balanced)	Card Format:	Supports up to 2 MB SRAM
Min Input Level (for 0 dBFS):	-4 dBu (balanced)	Control Interface	
A to D Conversion:	24 bit (1 bit, 128 times oversampling)	RS232:	9 Pin SUB-D
A to D Delay:	0.8 ms @ 48 kHz	GPI, Pedal, Fader:	1/4 inch phone jack
Dynamic Range:	>103 dB (unweighted), >106 dB(A)	General	
THD:	-95 dB (0.0018 %) @ 1 kHz, -6 dBFS (FS @ +18 dBu)	Finish:	Anodized aluminum face and top plate
Frequency Response:	10 Hz to 20 kHz: +0/-0.2 dB		Plated and painted steel chassis
Crosstalk:	<-80 dB, 10 Hz to 20 kHz, typical –100 dB @ 1 kHz	Display:	56 x 128 dot graphic LCD-display
Analog Outputs		Dimensions:	19" x 1.75" x 8.2" (483 x 44 x 208 mm)
Connectors:	XLR balanced (pin 2 hot)	Weight:	5.2 lb. (2.35 kg)
By-pass:	Through relay	Mains Voltage:	100 to 240 VAC, 50 to 60 Hz - (auto-select)
mpedance:	40 Ohm (balanced)	Power Consumption:	<20 W
Max. Output Level:	+26 dBu (balanced)	Backup Battery Life:	>10 years
Full Scale Output Range:	-4 dBu to +26 dBu (balanced)	Warranty	
D to A Conversion:	24 bit (1 bit, 128 times oversampling)	Parts and labor:	1 year
D to A Delay:	0.57 ms @ 48 kHz		
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#### Finalizer 96K STUDIO MASTERING PROCESSOR



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Digital Inputs and Outputs		Full Scale Output Range:	-10 dBu to +22 dBu
Connectors:	XLR (AES/EBU), RCA Phono (S/PDIF),	D to A Conversion:	24 bit (6.144 MHz delta sigma @ 48/96 kHz)
	Optical (Tos-link, ADAT)	D to A Delay:	0.57 ms @ 48 kHz, 0.28 ms @ 96 kHz
Formats:	AES/EBU (24 bit), S/PDIF (24 bit), EIAJ CP-340, IEC 958,	Dynamic Range:	>100 dB (unweighted, BW = 22 kHz), >104 dB(A)
	EIAJ Optical (Tos-link), ADAT Lite pipe	THD:	-82 dB (0.008 %) @ 1 kHz, -6 dBFS (FS @ +16 dBu)
Output Dither:	HPF/TPDF Dither 8-24 bit, mono, stereo, inverted	Frequency Response:	10 Hz to 20 kHz: +0/-0.5 dB @ 48 kHz, 10 Hz to
Word Clock Input:	RCA Phono, 75 Ohm, 0.6 to 10 Vpp		45 kHz: +0/-3 dB @ 96 kHz
Sample Rates:	32 kHz, 44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz	Crosstalk:	<-60 dB, 10 Hz to 20 kHz, typical -90 dB @ 1 kHz
Processing Delay:	0.2 ms @ 48 kHz, 0.1 ms @ 96 kHz	EMC	
Frequency Response DIO:	DC to 23.9 kHz ± 0.01 dB @ 48 kHz, DC to 47.9 kHz	Complies with:	EN 55103-1 and EN 55103-2, FCC part 15 Class B,
	± 0.01 dB @ 96 kHz		CISPR 22 Class B
Compressor THD+N:	-130 dB (0.00003%) @ 10 dB Compression,	Safety	
· · · · · · · · · · · · · · · · · · ·	20 Hz-20 kHz	Certified to:	IEC 65, EN 60065, UL 1419 and CSA E65
Sample Rate Conversion		Environment	
Type:	Asynchronous.	Operating Temperature:	32° F to 122° F (0° C to 50° C)
Dynamic Range:	120 dB	Storage Temperature:	-22° F to 167° F (-30° C to 70° C)
THD+N:	-106 dB 44.1 to 48 kHz @ 1 kHz, -2 dBFS	Humidity:	Max. 90 % non-condensing
Input Rate Range:	31 kHz to 49 kHz	PCMCIA Interface	
Analog Inputs		Connector:	PC card, 68 pin type 1 cards
Connectors:	XLR balanced (pin 2 hot)	Standards:	PCMCIA 2.0, JEIDA 4.0
Impedance:	20 kOhm	Card Format:	Supports up to 2 MB SRAM
Max. Input Level:	+22 dBu (balanced)	Control Interface	
Min. Input Level (for 0 dBFS):	-10 dBu	MIDI:	In/Out/Thru: 5 Pin DIN
Sensitivity:	@ 12 dB headroom: -22 dBu to +10 dBu	GPI, Pedal, Fader:	1/4" phone jack
A to D Conversion:	24 bit (6.144 MHz delta sigma @ 48/96 kHz)	General	
A to D Delay:	0.8 ms @ 48 kHz, 0.4 ms @ 96 kHz.	Finish:	Anodized aluminum front.
Dynamic Range:	>103 dB (unweighted, BW = 22 kHz), >106 dB(A)		Plated and painted steel chassis
THD:	-95 dB (0,0018 %) @ 1 kHz, -6 dBFS (FS @ +16 dBu)	Display:	56 x 128 dot graphic LCD-display
Frequency Response:	10 Hz to 20 kHz: +0/-0.2 dB @ 48 kHz, 10 Hz to	Dimensions:	19" x 1.75" x 8.2" (483 x 44 x 208 mm)
	45 kHz: +0/-1 dB @ 96 kHz	Weight:	5.2 lb. (2.35 kg)
Crosstalk:	<-80 dB, 10 Hz to 20 kHz, typical -100 dB @ 1 kHz	Mains Voltage:	100 to 240 VAC, 50 to 60 Hz (auto-select)
Analog Outputs		Power Consumption:	<20 W
Connectors:	XLR balanced (pin 2 hot)	Backup Battery Life:	>10 years
Impedance:	100 Ohm (active transformer)	Warranty Parts and labor:	1 year
Max. Output Level:	+22 dBu (balanced)		



Finalizer expression studio mastering processor



Main Power Power Switch Input 100 - 240V	Balanced XLR Balanced XLR analog Inputs analog Outputs AF Ol	Digital In/Out ES/EBU, S/PDIF PTICAL (Tos-link)	MIDI External In, Thru, out Fader Input
Digital Inputs and Outputs		Dynamic Range:	>100 dB (unweighted), >104 dB(A)
Connectors:	XLR (AES/EBU), RCA Phono (S/PDIF), Optical (Tos-link)	THD:	-86 dB (0.005 %) @ 1 kHz, -6 dBFS (FS @ +16 dBu)
Formats:	AES/EBU (24 bit), S/PDIF (24 bit), EIAJ CP-340, IEC	Frequency Response:	10 Hz to 20 kHz: +0/-0.5 dB
	958, EIAJ Optical (Tos-link)	Crosstalk:	<-60 dB, 10 Hz to 20 kHz typical -90 dB @ 1 kHz
Output Dither:	HPF/TPDF dither 16, 20 and 24 bit	EMC	
Sample Rates:	44.1 kHz, 48 kHz	Complies with:	EN 55103-1 and EN 55103-2, FCC part 15 class B,
Processing Delay:	0.2 ms @ 48 kHz	Safety	
Frequency Response DIO:	DC to 23,9 kHz ± 0,01 dB @ 48 kHz	Certified to:	CISPR 22 class B
Compressor THD+N:	-122 dB (0,00008%) @ 10 dB Compression,		IEC 65, EN 60065, UL 1419, CSA E65
	20 Hz-20 kHz	Environment	
Analog Inputs		Operating Temperature:	32° F to 122° F (0° C to 50° C)
Connectors:	XLR balanced (pin 2 hot)	Storage Temperature:	-22° F to 167° F (-30° C to 70° C)
Impedance:	20 kOhm	Humidity:	Max. 90 % non-condensing
Max. Input Level:	+22 dBu (balanced)	PCMCIA Interface	
Min. Input Level (for 0 dBFS):	-10 dBu	Connector:	PC Card, 68 pin type 1 cards
Sensitivity:	@ 12 dB headroom: -22 dBu to +10 dBu	Standards:	PCMCIA 2.0, JEIDA 4.0
A to D Conversion:	24 bit (1 bit, 128 times oversampling)	Card Format:	Supports up to 2 MB SRAM
A to D Delay:	0.8 ms @ 48 kHz	Control Interface	
Dynamic Range:	>103 dB (unweighted), >106 dB(A)	MIDI:	In/Out/Thru: 5 Pin DIN
THD:	-95 dB (0,0018 %) @ 1 kHz, -6 dBFS (FS @ +16 dBu)	GPI, Pedal, Fader:	1/4" phone jack, 0 Ohm to 50 kOhm
Frequency Response:	10 Hz to 20 kHz: +0/-0.2 dB	General	
Crosstalk:	<-80 dB, 10 Hz to 20 kHz typical -100 dB @ 1 kHz	Finish:	Anodized aluminum front, Plated and painted
Analog Outputs			steel chassis
Connectors:	XLR balanced (pin 2 hot)	Dimensions:	19" x 1.75" x 8.2" (483 x 44 x 208 mm)
Impedance:	100 Ohm (active transformer)	Weight:	5.2 lb. (2.35 kg)
Max. Output Level:	+22 dBu (balanced)	Mains Voltage:	100 to 240 VAC, 50 to 60 Hz (auto-select)
Full Scale Output Range:	-10 dBu to +22 dBu	Power Consumption:	<20 W
D to A Conversion:	24 bit (1 bit, 128 times oversampling)	Backup Battery Life:	>10 years
D to A Delay:	0.57 ms @ 48 kHz	Warranty Parts and labor:	1 year





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Routing modes	INPUTS 1/4" phone jack bal. / unbal.	OUTPUTS 1/4" phone jack bal. / unbal.	Digital I/O S/PDIF RCA phono	MIDI I/O	Power input. The internal switchmode power supply accepts from 100 to 240 VAC

Digital Input and Output		Dynamic Range:	typ < -110 dB typ, 22 Hz to 22 kHz
Connector:	RCA Phono (S/PDIF)	THD:	typ < -94 dB (0.002 %) @ 1 kHz, +21 dBu+0/-0.1
Formats:	S/PDIF (24 bit), EIAJ CP-340, IEC 958	Frequency Response:	dB, 20 Hz to 20 kHz
Sample Rates:	48 kHz. (44.1 kHz only @ Digital Input)	Crosstalk:	typ < -100 dB, 20 Hz to 20 kHz
Processing Delay:	0.08 ms @ 48 kHz	Environment	···
Frequency Response DIO:	DC to 23.9 kHz ± 0.01 dB @ 48 kHz	Operating Temperature:	32° F to 122° F (0° C to 50° C)
Analog Inputs		Storage Temperature:	-22° F to 167° F (-30° C to 70° C)
Connectors:	1/4" phone jack balanced/unbalanced.	Humidity:	Max. 90 % non-condensing
Impedance, Bal / Unbal:	20 kOhm / 11 kOhm	Control Interface	
Max. Input Level @ 0 dBFS:	+21 dBu	MIDI:	In/Out: 5 Pin DIN
A to D Conversion:	24 bit, 128 x oversampling bitstream	General	
A to D Delay:	0.9 ms @ 48 kHz	Finish:	Anodized aluminum front.
Dynamic Range:	Typ < -110 dB, 22 Hz to 22 kHz		Plated and coated steel chassis
THD:	Typ < -102 dB (0.0008 %) @ 1 kHz, -1 dBFS	Meter:	2 x 6 LED's in each channel
Frequency Response:	+0/-0.1 dB, 20 Hz to 20 kHz	Dimensions:	19" x 1.75" x 4.2"
Crosstalk:	Typ < -115 dB, 20 Hz to 20 kHz		(483 x 44 x 105.6 mm)
Analog Outputs		Weight:	3.3 lb. (1.5 kg)
Connectors:	1/4" phone jack bal. / unbal.	Mains Voltage:	100 to 240 VAC, 50 to 60 Hz
	Ground sensing design.		(auto-select)
Impedance :	35 Ohm	Power Consumption:	<15 W
Max. Output Level:	+21 dBu	Warranty parts and Labor:	1 year
D to A Conversion:	24 bit, 128 x oversampling bitstream		· · · · · · · · · · · · · · · · · · ·
D to A Delay:	0.58 ms @ 48 kHz		

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