BURNING DESIRES FULFILLED

The FireworX gives you the ability to insert external devices by using either the analog balanced Inputs or digitally via AES/EBU, S/PDIF or Tos-link.

Connect an optional TC Master Fader, expression pedal or a switch for external control.

The internal auto-sensing power supply automatically accepts and adjusts itself to 100-240V, 50/60Hz.

ADAT

The MIDI section

TECHNICAL SPECIFICATIONS:

DIGITAL INPUTS AND OUTPUTS

CONNECTORS:	XLR (AES/EBU), RCA Phono (S/PDIF)
	Optical (Tos-link, ADAT)
FORMATS:	AES/EBU (24 bit), S/PDIF (20 bit), EIAJ CP-340,
	IEC 958, EIAJ Optical (Tos-link), ADAT Lite pipe
OUTPUT DITHER:	HPF TPDF dither 8-24 bit
WORD CLOCK INPUT:	RCA Phono, 75 ohm, 0.6 to 10 Vpp
SAMPLE RATES:	44.1 kHz, 48 kHz
PROCESSING DELAY:	0.2 ms @ 48 kHz
FREQUENCY RESPONSE DIO:	20 Hz to 23,9 kHz +0,01/-0,1 dB @ 48 kHz

ANALOG INPUTS

CONNECTORS:	XLR balanced (pin 2 hot)
IMPEDANCE:	20 kohm
MAX. INPUT LEVEL:	+22 dBu (balanced)
MIN. INPUT LEVEL (FOR 0 dBFS):	-10 dBu
SENSITIVITY:	@ 12 dB headroom: -22 dBu to +10 dBu
A TO D CONVERSION:	24 bit (1 bit, 128 times oversampling)
A TO D DELAY:	0.8 ms @ 48 kHz
DYNAMIC RANGE:	>103 dB (unweighted), >106 dB (A)
THD:	-95 dB (0,0018 %) @ 1kHz, -6 dBFS (FS @ +16 dBu)
FREQUENCY RESPONSE:	10 Hz to 20 kHz: +0/-0.2 dB
CROSSTALK:	<-80 dB, 10 Hz to 20 kHz typical -100 dB @ 1 kHz

ANALOG OUTPUTS

CONNECTORS:	XLR balanced (pin 2 hot)
IMPEDANCE:	100 ohm (active transformer)
MAX. OUTPUT LEVEL:	+22 dBu (balanced)
FULL SCALE OUTPUT RANGE:	-10 dBu to +22 dBu
D TO A CONVERSION:	24 bit (1 bit, 128 times oversampling)
D TO A DELAY:	0.57 ms @ 48 kHz
DYNAMIC RANGE:	>100 dB (unweighted), >104 dB(A)
THD:	-86 dB (0.005%) @ 1 kHz, -6 dBFS (FS @ +16 dBu)
FREQUENCY RESPONSE:	10 Hz to 20 kHz: +0/-0.5 dB
CROSSTALK:	<-60 dB, 10 Hz to 20 kHz typical -90 dB @ 1 kHz

EMC

COMPLIES WITH:	EN 55103-1, and EN 55103-2
	FCC part 15, Class B CISPR 22, Class B

SAFETY

CERTIFIED TO:	IEC 65, EN 60065, UL 1419 and CSA E65"

ENVIRONMENT

OPERATING TEMPERATURE:	32° F to 122° F (0° C to 50° C)
STORAGE TEMPERATURE:	-22° F to 167° F (-30° C to 70° C)
HUMIDITY:	Max. 90 % non-condensing

PCMCIA INTERFACE

CONNECTOR:	PC Card, 68 pin type 1 cards
STANDARDS:	PCMCIA 2.0, JEIDA 4.0
CARD FORMAT:	Supports up to 2 MB SRAM

CONTROL INTERFACE

MIDI:	In/Out/Thru : 5 Pin DIN
GPI, PEDAL, FADER:	1/4" phone jack

GENERAL

FINISH:	Anodized aluminum front
	Plated and painted steel chassis
LCD:	56 x 128 dot graphic LCD-display
DIMENSIONS:	19" x 1.75" x 8.2" (483 x 44 x 208 mm)
WEIGHT:	5.2 lb. (2.35 kg)
MAINS VOLTAGE:	100 to 240 VAC, 50 to 60 Hz (auto-select)
POWER CONSUMPTION:	<20 W
BACKUP BATTERY LIFE:	>10 years

WARRANTY

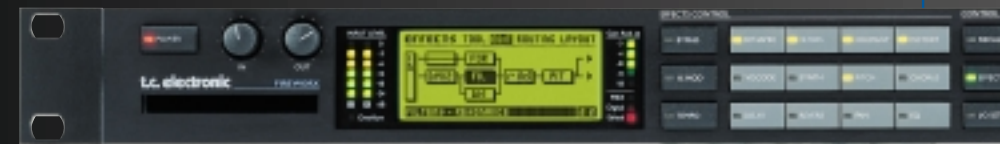|	
PARTS AND LABOR:	1 year

Note: Due to continuous development and standardization all specifications are subject to change without notice

t.c. electronic ®
ULTIMATE SOUND MACHINES

FIREWORX
MULTI-EFFECTS PROCESSOR

TURN UP THE HEAT

Prepare yourself for FireworX

The FireworX is the most radical sounding Multi-Effects Processor you've ever heard and 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.

Based on TC Electronic's cutting edge technology the FireworX will let you surf the limits of the possible.
Turn up the heat and get ready to explore the world of digital pyrotechnics …

BREATHE SOME FIRE INTO YOUR MUSIC

t.c. electronic   FIREWORX

PITCH-SHIFTING BY

WaveMechanics™

Powering up and shutting down the FireworX is done by pressing and holding the Power switch for 3 seconds. This is done to prevent you from accidently shutting it down.

The PCMCIA card slot is used for storing and loading presets.

The analog Input and Output level are adjusted with physical knobs to give you instant control of the various input sources you will send into the FireworX.

Bypass each active effect block with a single click or access it's settings with a double click.

With the Navigation controls you can move around very quickly inside the intuitive user interface.

The Alpha Modulation wheel, which resembles an internal expression pedal, can control several parameters at the same time. The specific function of the wheel is determined by the way you assign it within each individual preset.

Experience the limits of your imagination. Shape the sound. Give it personality. Control it. Celebrate the discovery of an all-new kind of effects processor!

Set your sound apart from the rest of the crowd with external multi-effects: Vocoder, Ring Modulator, Cruncher, Resonator, Pitch Shifter, Chaos Generator, Distortion, Reverse Delay , and more...

Create an infinite number of effects for any style of music or sound design: Endless routing possibilities with more than eight internal and nine external modifiers.

24 bit A/D- and D/A-converters, AES/EBU, S/PDIF and ADAT™ I/O's are all brought together through TC's cutting edge DARC3™-chip technology.

TC Electronic has been known for over 20 years as a manufacturer of pristine, straight-ahead effects. Introducing the explosive FireworX Studio Multi-Effects Processor, TC challenges you to explore the limits of your creativity and imagination.

TAKE IT TO THE LIMIT!

Modern production techniques often call for unusual effects combinations that are beyond the capability of the average processor. With more than 20 different algorithms, 20 modulation sources, full tempo control combined with numerous routing possiblities, the FireworX is the most radical sounding signal processor you've ever used!

ENTER THE FIREWORX

If you've been searching to find an alternative in effects processing, FireworX is the answer! It represents an all new perspective in signal processing, allowing you to express yourself and take control far beyond the capabilities of your average cookie cutter effects machine.

CREATE YOUR OWN SOUND PALETTE

FireworX features a 8x8 position routing grid. Simply place the algorithms anywhere on the grid and they will be automatically "wired" together. The FireworX uses a dynamic resource allocation system that allows you to monitor how much DSP power you are using. You can keep adding algorithms to the routing grid until you hit the DSP power limit without affecting the FX quality. With an impressive 80 million instruction per second DSP processor and the TC DARC™3 chip, the FireworX delivers the goods!

MAKE YOUR EFFECTS COME ALIVE

All this power would not be complete without the ability of your program material to control the effects. To accomplish this TC has designed 2 envelope followers, 2 ADSR generators, 2 LFO's, a Pitch detector and even a Freeform modifier that lets you design your very own waveform. In addition to that, the FireworX has 8 external modifier entries.

STRETCH THE EFFECTS BOUNDARIES

The FireworX is a very powerful machine, and inside the borders of it's extensive DSP power you can create any imaginable effect. The FireworX' broad palette of effects includes:

- ► **VOCODER**
- ► **RING MODULATION**
- ► **SYNTH GENERATOR**
- ► **FORMANT FILTER**
- ► **RESONANCE FILTER**
- ► **MULTITAP DELAY**
- ► **REVERSE DELAY**
- ► **REVERB**
- ► **DYNAMICS**
- ► **CHORUS**
- ► **FLANGER**
- ► **PHASE**
- ► **PITCH SHIFT**
- ► **CHAOS GENERATOR**

You can change the order of the effects, repeat certain blocks, add feedback loops, even insert an external device.

Three ways to connect the FireworX

FireworX

Analog Inputs   Analog Outputs

FireworX

Digital

Ext Device

FireworX   MIXER   RETURN   SEND
GROUP INSERT

FireworX   MIXER   **RETURN**   **SEND**

RECALL

The Recall page takes you step by step through all the FireworX' presets.
The List page gives you a clear overview and fast recall of presets.

The Preset page gives you the choice of Card-, Factory- or Userbank and the ability to exclusively scroll through all presets that contain, for example, a Vocoder.

I/O SETUP

The In & Out Section's Signal page shows the signal path from Input through inserts to Output. The very intuitive interface gives you the best possible overview and makes instant connection changes very fast and easy to perform.
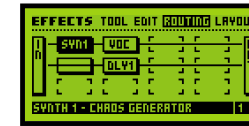
The Level page shows the analog Input/Output controls and gives you the ability to lower the digital signal, giving you total control of any level entering or exiting the FireworX.
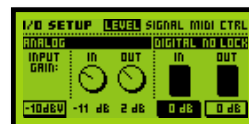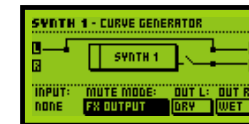
ROUTING

This is where you set up your block routing. With a double click on the effect block buttons you insert the effect type chosen with the Value wheel.

Choosing an effect block and pushing Enter will bring up the Sub Routing I/O page of the chosen block. You decide on where the chosen effect will get its fuel from and where to route it's power.

Push Enter again and access the core settings of your chosen effect in the FireworX.

TOOL

If you want to know how much DSP power each effect is using, go to the Tool page under the Effects section, choose DSP LOAD then press Enter.

The percentage of the DSP power used in each block will now be displayed. Use the Exit button to toggle between this and the effect type name. What you see on the display of the FireworX is what you get.
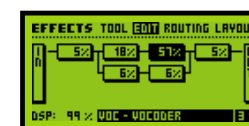
MODIFIER MENU

Looking for the Holy Grail? This is where it's at. The Modifier section is what makes the FireworX so versatile.
Only your imagination is the limit here. Think of any possible way to combine modifiers and effect parameters, and make it happen. Creativity brought to work, all made possible by the FireworX.
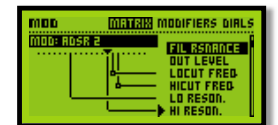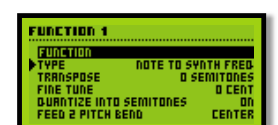
FREEFORM MODIFIER

The Freeform modifier is actually a tiny sequencer that allows you to create a more "rhythmic" sequence. This is very useful if you want a Phaser or a Tremolo to act as a percussive sidekick to a breakbeat.
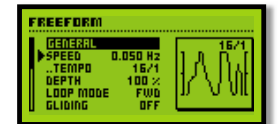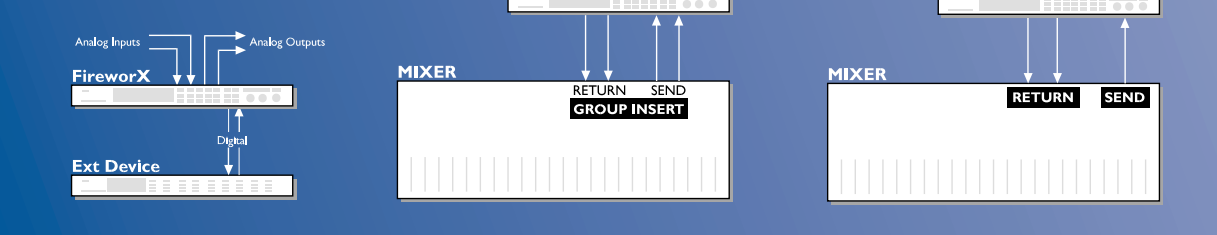
FUNCTION MODIFIER

If you're in need of a monophonic synthesizer, use the one in the FireworX. You can route your keyboard via MIDI to e.g. Function 1 and then route Function 1 to the Synth Frequency. Voila, there you go!

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