

### **USER'S MANUAL**

tc electronic

## **IMPORTANT SAFETY INSTRUCTIONS**



The lightning flash with an arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous volt-

age" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons. The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the

1 Read these instructions.

- 2 Keep these instructions.
- 3 Heed all warnings.
- 4 Follow all instructions.
- 5 Do not use this apparatus near water.
- 6 Clean only with dry cloth.
- 7 Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8 Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9 Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11 Only use attachments/accessories specified by the manufacturer.
- 12

Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is

used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

- 13 Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

#### Warning!

product.

- To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture and objects filled with liquids, such as vases, should not be placed on this apparatus.
- This apparatus must be earthed.
- Use a three wire grounding type line cord like the one supplied with the product.
- Be advised that different operating voltages require the use of differ ent types of line cord and attachment plugs.
- Check the voltage in your area and use the correct type. See table below:

Voltage	Line plug according to standard	
110-125V	UL817 and CSA C22.2 no 42.	
220-230V	CEE 7 page VII, SR section 107-2-D1/IEC 83 page C4.	
240V	BS 1363 of 1984. Specification for 13A fused plugs and switched and unswitched socket outlets.	

- This equipment should be installed near the socket outlet and disconnection of the device should be easily accessible.
- To completely disconnect from AC mains, disconnect the power supply cord from the AC receptacle.
- The mains plug of the power supply shall remain readily operable.
- Do not install in a confined space.
- Do not open the unit risk of electric shock inside.

#### Caution:

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

#### Service

- There are no user-serviceable parts inside.
- All service must be performed by qualified personnel.

E N G L I S H

This equipment has been type tested and found to comply with the limits for a class B digital device pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television equipment reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by any combination of the following measures:

- Relocate or reorient the receiving antenna
- Increase the separation between the equipment and the receiver
- Plug the equipment into an outlet on a circuit different from that to which the receiver is connect-
- ed

If necessary, you can consult a dealer or experienced radio/television technician for additional assistance.

PLEASE NOTE: Only equipment certified to comply with Class B (computer input/output devices, terminals, printers, etc.) should be attached to this equipment, and it must have shielded interface cables in order to comply with the Class B FCC limits on RF emissions.

CANADIAN CUSTOMERS This Class B digital apparatus complies with \*Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada CERTIFICATE OF CONFORMITY TC Electronic, Sindalsvej 34, 8240 Risskov, Denmark, hereby declares by own responsibility that the following products: POWERCORE FIREWIRE POWERCORE COMPACT POWERCORE PCI MKII POWERCORE EXPRESS POWERCORE UNPLUGGED POWERCORE X8 POWERCORE 6000 - marked with CE-label are covered by this certificate and conform with the following standards : EN 60950 Safety for information technology equipment, including electrical business (IEC 60950) equipment. EN 55022 Limits and methods of measurement of radio disturbance characteristics (CISPR 22) of information technology equipment. EN 55024 Information technology equipment - Immunity characteristics -(CISPR 24) Limits and methods of measurement. With reference to regulations in following directives : 73/23/EEC, 89/336/EEC Issued in Risskov, September 06 Mads Peter Lübeck Chief Executive Officer

C C COMPLIES WITH CANADIAN ICES-003 CLASS B FOR HOME OR OFFICE USE

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# **CONTACT DETAILS**

TC ELECTRONIC A/S Customer Support Sindalsvej 34 Risskov DK-8240 Denmark

www.tcelectronic.com www.tcsupport.tc

USA: TC Electronic Inc. TC Works Customer Support 5706 Corsa Avenue, Suite 107 Westlake Village, CA 91362 www.tcelectronic.com www.tcsupport.tc

## **TECHNICAL SUPPORT**

For immediate answers on many support questions, visit the TC SUPPORT INTERACTIVE pages on www.tcsupport.tc

# ENGLISH

#### LIMITED HARDWARE WARRANTY

POWERCORE is warranted against failure arising through faulty workmanship and materials for a period of one year from the date of purchase. All claims under this warranty must be made to TC Electronic's dealer or local representative in the country the product was purchased, or alternatively directly to TC Electronic in Denmark. Before you do this, contact customer support to obtain an RMA number for your correspondence. Products sent to us without prior authorization will be refused.

- Pack the product securely in its original shipping box
- Include a copy of your sales receipt
- Prepay postage and insure the shipment
- Enclose a note that describes the symptoms.

Within the warranty period, the unit will be repaired at no charge for parts and labor.

This warranty remains valid only if the serial number on the card has not been removed, and if repairs are performed only by parties authorized by TC. It does not cover damage due to misuse, accident or neglect. The local representative and TC retain the exclusive rights to make such determinations on the basis of inspection.

Liability is expressly excluded in respect of any third party or consequential loss or damage (direct or indirect) however or whenever arising.

Please note that there might be additional regulations in place in your country that differ from the warranty rights granted in this document.

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CAUTION – Do not open the PowerCore FireWire/Compact. Risk of electric shock inside. There are no user-serviceable parts inside. Refer servicing to qualified service personnel only. Mount PowerCore FireWire/Compact with a little space above and below in a well ventilated rack. Don't block the top or bottom. To prevent electrical shock or fire hazard, do no expose PowerCore FireWire/Compact to rain or moisture. Do not rely solely on the front screws when mounted in touring rack. Support the back of PowerCore FireWire as well. Please report any shipment damage or equipment malfunctions to your dealer, TC distributor or the TC head office in Denmark.

## WELCOME CONGRATULATIONS!

You are about to add a stack of rackmount-quality effects to your native recording environment – and we are convinced that once you have used PowerCore on a few sessions it will stay as an essential part of your equipment for years to come.

PowerCore is an exciting concept, putting an end to proprietary closed system environments. With a range of hardware and software options, and its seamless integration into the VST and Audio Units you will still be able to freely build the system environment according to your needs – and benefit from the much greater predictability of DSP-based systems at the same time.

PowerCore is an open development platform – so make sure you check www.tcelectronic.com regularly for the latest information on new products by our 3rd party developers, such as Sonnox, TC Helicon, DSound, Access and Noveltech. The 3rd party community is growing rapidly – so there won't be a shortage of new and cool tools!

Please don't hesitate to supply us with feedback – this way you can help us to keep making products that will help you getting the job done.

#### ENJOY!

TC Electronic

### ATTENTION

- Only Plug-ins written especially for PowerCore will run on this platform

   native plug-ins run on your computers CPU will not take advantage of
   PowerCore's DSP-power.
- In this manual, PowerCore refers to <u>all</u> PowerCore types unless other information is given.
- "PowerCore Unplugged" hardware is identical to PowerCore PCI mkll, but comes with NO plug-ins included. Therefore, any reference to "included plug-ins" in this manual does not apply to "PowerCore Unplugged".

# **POWERCORE SYSTEM REQUIREMENTS**

# MAC

PowerCore software 3.0 or higher Mac OS X (10. 4 or higher) G4/G5 or Intel (1 GHz or faster) 512 MB RAM VST or Audio Units compatible host application. System must meet requirements of the host application

#### FireWire, Compact, X8 & PowerCore 6000:

400 MBit FireWire connector (IEEE 1394)

#### PCI mkll and Unplugged:

A free PCI/PCI-X slot

#### Express

A free PCI Express slot

## PC

PowerCore software 3.0 or higher Windows XP PIII 1,4 GHz or faster 512 MB RAM VST compatible host application System must meet requirements of the host application

#### FireWire, Compact, X8 & PowerCore 6000:

400 MBit FireWire connector (IEEE 1394)

#### PCI mkll and Unplugged:

A free PCI/PCI-X slot

#### Express

A free PCI Express slot

#### Attention

All specifications and system requirements are subject to change without notice. We HIGHLY recommend to visit www.tcelectronic.com for latest information.

## **POWERCORE SPECIFICATIONS**

#### **POWERCORE COMPACT**

- 2 x Motorola 56367 DSP / 150 MHz
- 512k Word SRAM per DSP
- 1x 266 MHz Motorola 8245 PowerPC
- 8 MByte SDRAM on board
- Power Requirements typically lower 10 W. Peak max. 20 W.
- Operating temperature: 0°C 40°C (32°F 104°F)
- Storage temperature: -30°C 80°C (-22°F 176°F)
- Humidity: max. 90%, non-condensing

#### **POWERCORE PCI MKII & POWERCORE UNPLUGGED**

- 4 x Motorola 56367 DSP / 150 MHz
- 512k Word SRAM per DSP
- 1x 266 MHz Motorola 8245 PowerPC
- 32 MB SDRAM on board
- Power Requirements typically lower 10 W. Peak max. 20 W
- Operating temperature: 0°C 50°C (32°F 122°F )
- Storage temperature: -30°C 80°C (-22°F 176°F)
- Humidity: max. 90%, non-condensing

#### **POWERCORE EXPRESS**

- 4 x Motorola 56367 DSP / 150 MHz
- 512k Word SRAM per DSP
- 1x 266 MHz Motorola 8245 PowerPC
- 32 MB SDRAM on board
- Power Requirements typically lower 10 W. Peak max. 20 W
- Operating temperature:  $0^{\circ}C 50^{\circ}C (32^{\circ}F 122^{\circ}F)$
- Storage temperature: -30°C 80°C (-22°F 176°F)
- Humidity: max. 90%, non-condensing

#### **POWERCORE FIREWIRE - X8 - 6000**

- FIREWIRE version: 4 x Motorola 56367 DSP / 150 MHz X8 and 6000 versions: 8 x Motorola 56367 DSP / 150 MHz)
- 512k Word SRAM per DSP
- 1x 266 MHz Motorola 8245 PowerPC
   X8 and 6000 versions: 2 x 266 MHz Motorola 8245 PowerPC)
- 8 MByte SDRAM on board
   X8 and 6000 versions: 2 x 8 MByte SDRAM on board)
- Power Requirements typically lower 10 W. Peak max. 20 W.
- Operating temperature: 0°C 40°C (32°F 104°F)
- Storage temperature: -30°C 80°C (-22°F 176°F)
- Humidity: max. 90%, non-condensing

# SOFTWARE INSTALLATION GUIDE WINDOWS

#### We recommend installing the software before connecting/installing the hardware.

• Close ALL running applications.

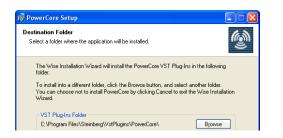
- -

ENGLIS

- Insert the PowerCore CD in your computers CD-ROM drive.
- The installer should start automatically. If it does not, then navigate to the CD ROM drive and doubleclick the: SETUP.exe
- The following screen appears:



- Read, act and click NEXT.
- The License agreement screen appears.
- Read and check "I accept the license agreement", if you agree; click NEXT.
- Read the POWERCORE SOFTWARE INSTALLATION Read ME & Limited Hardware Warranty and press NEXT.
- The installer now suggests a default location for installing the PowerCore package



• The installer is now ready to install the software. Click NEXT to proceed or press BACK to re-enter the installation information. To exit the installation press CANCEL.



• When the installation is complete, connect/install your PowerCore hardware.

For detailed information on how to connect/install your PowerCore hardware please refer to page 14-15.

• After connecting/installing the PowerCore hardware the computer may indicate that it has "found new hardware" and the following "Welcome to the Found New Hardware Wizard" may appear.



- Select "No, not this time" and press NEXT.
- Now select "Install the software automatically" and press NEXT.



• After completing the software installation click FINISH and Windows will indicate that the installation is complete:



Congratulations - the installation is now complete.

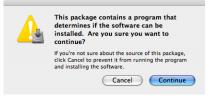
## SOFTWARE INSTALLATION GUIDE OSX

We recommend installing the software before connecting/installing the hardware.

## MAC SETUP

We recommend installing the software before connecting or installing the hardware.

- Insert the PowerCore CD in your Mac's CD-ROM drive.
- The install disk should appear on your desktop automatically. If it does not, open a new Finder window and navigate to the CD.
- The following dialog appears:



- · Click CONTINUE.
- · Read the introduction and press CONTINUE.
- The Read Me screen appears.



 This describes the installation procedure as well as the Limited Hardware Warranty. Read and click CONTINUE.
 Note: You may also print or save this information before continuing.

- · Read the Software License Agreement and press CONTINUE.
- The following screen appears.



- Make sure that you have read and understood the Software License Agreement and click AGREE.
- Select your system drive and click CONTINUE.

 It is now possible to perform a basic installation of the software (recommended). Click UPGRADE/INSTALL to do so.

00	🍯 Install PowerCore	
	Easy Install on "Mac OS X"	_
⊖ Introduction		
O Read Me	Click Upgrade to perform a basic installation of this software package on the volume "Mac OS X."	
O License	this software package of the volume Mac OS X.	

• If you choose "Customize" instead the following screen appears.

	Install PowerCore		
	Custom Install on "Mac OS X"		
	Package Name	Action	Siz
O Introduction	Vertical PowerCore Driver	Upgrade	0 bytes
🖯 Read Me	▼ ✓ PowerCore Plug-Ins		0 bytes
O Read Me	PowerCore Included Plug-Ins	Upgrade	0 bytes
O License	PowerCore Optional Plug-Ins	Upgrade	0 bytes
Select Destination			

- Here you have the opportunity to de-select parts of the installation. (Not recommended for a standard installation)
- Enter your Mac OS X username and password and press OK.
- The installer now installs drivers and software.
- After the installation you have the options shown below. Select and click CONTINUE.



Congratulations - the software installation is now complete.

Now connect/install you PowerCore hardware.

## **POWERCORE HARDWARE INSTALLATION GUIDE** HARDWARE INSTALLATION POWERCORE PCI MKII, EXPRESS & UNPLUGGED

In the following pages, we will show you in detail how to install the PowerCore PCI mkII card in your computer. In this example we use a Windows based PC, but the installation procedure will also work with Macs. Please note that the procedure for opening and closing your computer case might differ. Make sure you consult the operating manual of your computer for further details.

1. Shut down your computer and make sure the power is OFF and the power lead to your computer is disconnected!



**2.** Open your computer. Discharge any static electricity from your clothes and body before you continue. This can be done by touching the internal frame of the computers case.



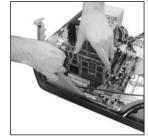
3. Remove the screw and the blind panel on the free PCI \*) slot you are planning to use.

\*) PowerCore Express must be installed in a PCIe slot. Check the specifications of your computer to see if it facilitates PCIe.

The PCI Express (PCIe) bus is a new incarnation of the PCI bus. Note that PowerCore Express is physically incompatible with a standard PCI port.



**4.** Insert the card carefully, and make sure that it is fitted properly into the slot.



 ${\bf 5.}$  Now tighten the screw in order to secure the card.



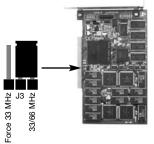
**6.** Close the case and then connect the power lead again.



# PowerCore PCI mkII & Unplugged Special Jumper settings

# PowerCore PCI mkII supports both 33MHz and 66MHz PCI bus speeds.

In its default position the PowerCore card will run at a PCI bus speed of either 33MHz or 66MHz, depending on your PCI bus speed. By moving the jumper to the "Force 33MHz" position, the card is forced to run at 33 MHz. We highly recommend that you leave all jumper settings in their default position, unless instructed by a TC Electronic service technician to do otherwise. Other jumpers on the card should be left untouched, as they are used only for hardware testing purposes in a qualified TC Service Center.



The PCI-X bus architecture used in most Mac G5-models is backwards compatible with PCI. PowerCore PCI mkII is therefore compatible PCI-X based models.

ENGLISH

## HARDWARE INSTALLATION POWERCORE FIREWIRE, X8, 6000 & COMPACT

- 1. Power off your computer!
- 2. Disconnect the power-cable from your PowerCore device.
- 3. Connect the included FireWire cable to a free FireWire port on your computer.
- 4. Connect the other end of the cable to a free FireWire port on your PowerCore.
- 5. Connect the power-cable to your PowerCore device and power up.
- 6. Start your computer.

## NOTE:

We STRONGLY recommend connecting the firewire cable BEFORE powering up your PowerCore FireWire or connecting the power-cable to your PowerCore Compact.

This procedure should ALWAYS be followed !

# THE POWERCORE CONTROL PANEL

# Via the PowerCore Control panel you are able to monitor all connected PowerCore items in your system.

- The Status page indicates the DSP and memory consumption. Not only on the individual PowerCore items, but also on the individual DSP circuits.
- On the Plug-in page you are handle licenses, monitor free trial time and link to purchase licenses for the desired plug-ins.
- On the Setup page a few options are available to help you utilize your PowerCore to its full potential.

#### Accessing the Control Panel in Windows

In Windows, the TC PowerCore control panel can be accessed from the Start Menu: Start --> Settings --> Control Panel --> PowerCore

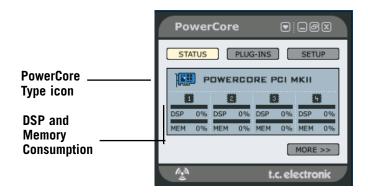
#### Accessing the Control Panel in Mac OS

In Mac OS, the PowerCore control panel can be accessed from the System Preferences Menu in the Dock: System Preferences --> Other --> PowerCore

You must click on CONTINUE to open the control panel from the Preferences dialog.

## **STATUS PAGE**

First let us take a look at the Status page.



#### PowerCore Type icon

The PowerCore Type icon conveniently indicates the type of PowerCore device.

# E N G L I S H

#### continued......

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#### **DSP** and **Memory** Consumption

PowerCore PCI MkII (as in example) is equipped with 4 DSP and memory circuits. Each DSP has an indicator for DSP Load, the percentage of each DSP used, as well as Memory, indicating how much memory is in use on each DSP.

#### **Expanded Status page**

The status page can be expanded by pressing the "MORE" key.

PowerCore	
STATUS PLUG-INS SETUP	
Image: Powercore pci mkii           Image: DSP 0%         DSP 0% <th>Authentication ID:         Nick name:       PowerCore PCI mkII         Firmware:       1.9.5.7         Device OS:       2.0.0.4</th>	Authentication ID:         Nick name:       PowerCore PCI mkII         Firmware:       1.9.5.7         Device OS:       2.0.0.4
	t.c. electronic

#### **Authentication ID**

The Authentication ID contains your Serial Number and Board ID. This combination of numbers is unique and you will need this to register your PowerCore.

To copy the numbers to the clipboard:

- Right click on top of the ID number
- Select "Copy authentication ID to clipboard"

Once the numbers are on the clipboard they are easily pasted into the online registration form.

#### Nickname

If you have several PowerCore devices in your system you may prefer to "Nickname" the individual devices for better overview in the future.

#### The RESET button

The RESET button will reboot the PowerCore. This will terminate all plug-ins running on this particular PowerCore! Should you ever find yourself needing to RESET the PowerCore, you should save and close your session before you RESET. Failing to do so will most likely result in various error messages from the host as it will expect to see plug-ins that are not there.

## PLUG-INS PAGE

The plug-ins page is an overview page of all available plug-ins and their status. Depending on the type of PowerCore hardware you are using, the plug-ins have various status types.

The PowerCore 2.0 software features a new licensing system. The 2.x licensing system provides new features, including full functional trial time and better overview over the plug-ins.

PowerCore 2.0 also works with the old 1.x licensing system, meaning that plug-ins that are authorized for the 1.x will still run. You can still open the plug-ins and work with them as you are used to, but 1.x licenses will <u>not</u> appear in the control panel. Please also notice that not all 3rd party developers will make use of the 2.x licensing system, and therefore there will be plug-ins that do not appear in the control panel.

#### Free Trial Period on optional plug-Ins

Optional plug-ins distributed by TC Electronic come with a free trial period. Once the free trial period expires you will have to buy the plug-in for continued use.

A counter of the remaining free trial time for each plug-in is found on the plug-ins page. Depending on the type of host application you are using, the time counts in slightly different ways. With some host applications (such as Cubase) the counter is running as soon as the plug-in is opened and <u>also</u> when the song is in stop mode. With other applications (such as ProTools), the counter is running only when a signal is passing through the plug-in in play mode.

STATUS PLUG-INS SETUP LOAD LICENSE					
PLUG-INS	TYPE	STATUS	ACTION		
Assimilator	Full	Enabled			
DVR2 Digital Vintage Reverb	Full	Enabled			

## **PLUG-INS**

List of all optional PowerCore plug-ins. Register at www.tcelectronic.com to stay informed about new releases and new plug-ins. Once a plug-ins is authorized the plug-in will run on any connected PowerCore products in the system.

Beware that there are a number of plug-ins that this list does not show:

TC Plug-ins that are using the old (non 2.x) version copy protection
 Plug-ins from 3rd parties that use old (non 2.x) version copy protection
 Plug-ins from 3rd parties that use iLok copy protection (for instance Sonnox plug-ins)

Authorized correctly, these types will run absolutely fine without limitations, even though they are not shown in the list.

## TYPE (PLUG-IN TYPE)

#### No info

The plug-in license is not version 2.x., and therefore there is no info available. This is typically the case if the plug-in has been installed with an earlier version of the PowerCore software.

#### Not available

There is no info available because there is no PowerCore supporting the 2.x license system available. This message appears when there are only PowerCore PCI/Elements in the system.

#### Expired

The license has expired.

#### Removed

The license has been removed.

#### Beta

Beta version. This plug-in is a beta version and might not be fully functional.

#### Trial

This plug-in is a time limited trial version. The plug-in is fully functional until the end of the trial period. Note: When the remaining trial period is above 4 days this is indicated by: "> 4 days"

#### Bundled

This plug-in is bundled with one of the PowerCores in your system and is fully functional.

#### Educational

Education version. Not for resale but fully functional.

#### NFR

Not for resale but fully functional.

#### Full

Full version - fully functional.

#### Load License

If you buy an optional plug-in, you will receive a license file. Use the Load License button to store the license on your PowerCore card.

## **STATUS**

#### Enabled

The plug-in is activated.

#### 19:59:59 - and counting

This counter shows the remaining time of the trial period of the plug-in.

Depending on the type of host application you are using, the time counts in slightly different ways. With some host applications (such as Cubase) the counter is running as soon as the plug-in is opened also when the song is in stop mode. With other applications (such as ProTools), the counter is running only when a signal is passing through the plug-in in play mode.

## ACTION

#### Remove

It is possible to remove a license from you current PowerCore hardware and move the license to another PowerCore unit or to sell the license should you wish to do so.

- Click on the REMOVE button for the license you wish to remove.
- Click OK to proceed.
- Select at location where you want to save the file and click OK.

You have now removed the license from the PowerCore hardware. Next action is to transfer the license back to your My Account.

- Go to My Account via www.tcelectronic.com
- Click Upload plug-in license.
- Click BROWSE to locate your license file on your computer and click OK to upload the license.

That's it. The license has now been successfully removed from your PowerCore and uploaded to your My Account.

#### Load License to another PowerCore of you own

Should you wish to load the license back onto another PowerCore unit belonging to you, click Download plug-in license and assign it to another one of your PowerCore products.

#### Transfer License to another PowerCore user

In order to transfer a plug-in license to another PowerCore user, please contact the TC Support Team and provide the following information:

- Serial number and name of the product to be transferred.
- TC My Account User ID / email address of the new user.
- The registered PowerCore Authentication ID that the license should be transferred to.

# ENGLISH

## SETUP PAGE

By clicking on the Setup tab in the control panel, you will be able to perform some advanced tweaks to your PowerCore system.

PowerCore
STATUS PLUG-INS SETUP
SYSTEM INFORMATION
PowerCore Software Version: 3.1.0.21 PowerCore DLL: 3.1.0.21 WDM Driver: 3.1.0.21 Control Panel: 3.1.0.21
SYSTEM SETUP
Plug-in Loading:
O Adjust for least host CPU consumption
<ul> <li>High compatibility mode (default)</li> </ul>
O Adjust for most plug-ins
If you change anything here, please reload your project to apply the settings
Buffer multiplier: ● x1 O x2 O x3 O x4 Increase if you experience host CPU spikes
t.c. electronic

#### SYSTEM INFORMATION

The System information indicates the current PowerCore software, drivers and Control Panel versions.

#### Check for update

By pressing the CHECK FOR UPDATE button the software will automatically access the internet and check to see if a newer version is available for download. Before downloading you will be prompted and asked to confirm the download.

#### System Report

If for some reason you need to get in contact with our support center they will ask to see a system report. The system report is a small text-file containing all relevant information of your current system. To create a system report, press the SYSTEM REPORT button. The file will be saved on your desktop. The system report file will not contain any personal information, and TC will use the information only in order to help with issues.

#### SYSTEM SETUP - plug-in loading

The System Setup options controls the way the plug-ins are loaded onto the DSPs in your PowerCore system. There are three options:

#### Adjust for least host CPU consumption

Chose this setting if you experience clicks or dropouts.

#### High compatibility mode

This is the default setting and it will work perfectly for most setups.

#### Adjust for most Plug-Ins

This is the ideal setting if you use many small and low CPU consuming plug-ins.

#### SYSTEM SETUP - Buffer Multiplier

If you experience host CPU spikes you may need to increase the PowerCore's buffer size. The buffer multiplier increases your soundcards buffer setting by a factor 1,2,3 or 4. Increasing the buffer multiplier results in increased latency and should therefore only be increased if CPU spikes actually occur.

# **GETTING THE MOST FROM POWERCORE**

## BUFFER SIZES

For optimal performance, set your audio buffer size (typically adjusted in the I/O setup of your host application) to a value between 256 and 1024 samples. Rule of thumb: The larger the audio buffer size, the lower your PowerCore plug-in's performance overhead on the DSPs and the CPU of the host computer. PowerCore is optimized for best performance when using a buffer setting of 1024 samples. The minimum I/O buffer size for PowerCore to work properly is 128 samples.

#### THE DISABLED STATE

When the Disabled State becomes active, the plug-in is bypassed due to a lack of available DSP performance. This can happen when increasing the sample rate or you try to load too many plug-ins. Only the audio processing will be bypassed on a disabled plug-in – all of the parameters and presets updates will still be active, preventing problems later on should you not notice that a plug-in has become disabled.

Let us say that this error occurs when trying to load MegaReverb. In this case, you will receive the following warning: "The following error occurred with the PowerCore Effect 'MegaReverb': The PowerCore does not have enough free DSP resources available to load the Plug-in. "

As an additional warning, there will be a status indication directly within the plug-in that is disabled.

PowerCore CL 96K	
POWERCORE	🔕 DISABLED

**Figure 1:** Many of the PowerCore plug-ins have a Disabled LED at the bottom of the plug-in that will light-up red when disabled.

Some PowerCore plug-ins, such as EQSAT Custom, 24/7•C or the CLASSIC VERB, will display the Disabled State message directly in the user interface.



**Figure 2:** The 24/7•C will appear as though the "lights are out" and the disabled message will appear in the VU Meter display.

#### 96 kHz PROCESSING

The included PowerCore plug-ins support 96 kHz processing. The golden rule of DSP performance is: the higher the sample rate, the greater the DSP performance required. So, a plug-in that requires 50% of a DSP at 48 kHz will require 100% of a DSP at 96 kHz, as a doubling of sample rate also doubles the resulting DSP performance required. As mentioned above, a plug-in will enter the Disabled State if it can not handle a certain sample rate. In that case, simply switch back to the supported sample rate.

# LATENCY

#### WHAT IS LATENCY?

PowerCore plug-ins have a slight delay before the processed signal is returned to the host application. The delay can be somewhat disorienting, resulting in an effect that sounds like it is not in sync with the tempo of your song. To accommodate this, most applications have something called Automatic Delay Compensation. Plug-ins report back to the host application with a processing time, and the application offsets the audio so that everything "lines up".

The COMPENSATOR plug-in, included with your PowerCore, allows you to easily setup delay compensation manually. Check the COMPENSATOR manual-PDF on your installation CD for details.

#### NO LATENCY MODE

The PowerCore plug-ins offer the No Latency Mode. This mode is an alternative way of communicating with the PowerCore. To enter No Latency Mode, click on the PowerCore logo on the bottom of the plug-in. When enabled, the PowerCore logo will have a red glow to indicate operation.

In most cases, No Latency Mode is not required as this much power comes at a price; No Latency Mode will place a significant load on your host CPU! However, No Latency Mode is ideal for record monitoring with a PowerCore reverb effect or playing a PowerCore synth.

#### LATENCY IN THE MASTER FADER

When using PowerCore plug-ins in the Master output channel, latency is not an issue as all of the audio is uniformly delayed.

# **USING POWERCORE PLUG-INS**

PowerCore plug-ins act and behave in the exact same manner as "traditional" VST or Audio Units plug-ins, with the exception that they are using the processing power of the PowerCore DSPs, - not your host computer's CPU.

PowerCore plug-ins can be used in Multi-Track audio applications, stereo mastering applications, and even audio capable video-editing applications that can host one or more of the supported PowerCore plug-in formats.

## BASE PACKAGE - INCLUDED PLUG-INS WITH ALL POWERCORES\*

A detailed description of the plug-ins' features as well as instructions for operation can be found in the associated PDF-manual on your installation CD.

Please note that the list of included plug-in bundle is subject to change without notice. Refer to your product box for more details on which plug-ins are bundled with your PowerCore purchase !!



#### 24/7·C LIMITING AMPLIFIER

Convincing vintage compression and limiting using one of the most desired vintage models for PowerCore! 24/7  $\cdot C$  was

inspired by one of the vintage processors synonymous with classic dynamics processing for mixing and mastering. This plug-in recreates the details of the sound and user interface of this hardware processor as closely as possible, delivering virtual vintage at its best. The user interface is simple and straight-forward: increasing the input will drive the limiter depending on the selected ratio.

Even the famous 4-button-mode was implemented. A special new feature is an autogain sensing for the output parameter, that adjusts the output depending on the program material.



#### **NOVELTECH CHARACTER™**

Character is the result of the latest scientific research in digital signal processing and psychoacoustic. Basic audio processing tools such as EQs and compressors

involve a large number of technical parameters, which have

to be set to correct values in order to get the desired result. The Character<sup>™</sup> intelligently enhances the relevant characteristics found in the source, working across a complex set of connected parameters, and not only boosting e.g. one specific frequency. This innovative approach allows users to get to the desired results much faster, as only three parameters need tweaking!

Character can dramatically reshape the character of any sound and has 3 different processing modes ensure adaptability to all types of audio material.

\*Does not apply to PowerCore Unplugged!



#### **CHORUS-DELAY**

CHORUS-DELAY is modeled after the TC Electronic 1210 Spatial Expander, and provides you with simultaneous modulation effects such as chorus and flange as well as slap delay. To make tempo-based projects easier to manage, we have added a BPM-input scale to the delay time adjustment parameter. CHORUS-DELAY is also available in the TDM bundle of plug-ins, TC TOOLS for ProTools HD.



#### CLASSIC VERB

CLASSIC VERB enhances the out-of-the-box reverb flexibility of PowerCore significantly! This reverb processor adds a distinctly warm and lush reverb effect often associated with big expensive hardware processors. It is a whole different way to create the effect compared to the traditional reverb philosophy or accurate room reproduction, as you will find with the reverbs provided by MegaReverb.



#### EQSAT CUSTOM

EQSat provides you with crystal clear mastering quality equalization. This EQ's algorithm is taken directly from the TC Electronic Finalizer mastering processor! Featuring low and high shelving bands as well as three stereo bands of Parametric EQ, EQSat Custom is ideal for all of your precision equalization needs. The EQSat algorithm is also available in the TDM bundle of plug-ins, TC TOOLS for ProTools HD.



#### FILTROID

With its dual filters and extensive modulation capabilities, Filtroid brings the sound of analog filter banks to PowerCore.

Filtroid consists of two filters with low-, hi- and band-pass shapes with 12, 18 or 24 db slope characteristics. The filters can be used in series or parallel for the utmost creative

control, and the external side-chain input provision allows for modulation of the filter from another track.

Extensive modulation capabilities include independent LFOs per filter and an envelope follower. Tempo sync ensures that filter movements are always synchronized to the speed of the sequencer, and a distortion unit adds an additional edge to the sound, if desired.

With serial or parallel filter routing, massive modulation options, side chain input, resonance with self-oscillation, envelope follower, distortion and out of phase modulation, PowerCore users have all the tools they need to make the most extreme filter effects.



#### MASTER X3

Knock out Punch for any mixes or masters. Period. MASTER X3 is the virtual incarnation of the TC Electronic Finalizer, the standard mastering processor in the pro audio field. MASTER X3 expedites the mastering process by integrating several phases of mastering into a single, easy to use interface. It features multiband processing with expansion,

compression and limiting separately for each band. High quality uncorrelated dithering is included as well. The intuitive user interface features many new ideas to make the critical mastering process faster and easier. The overall processing characteristics are controlled via "Target Curves" that simplify the handling by providing a global processing style for all bands in all modules. The interaction between the bands can be fine tuned by applying "Target Factors" which determine the frequency focus of each processing module, significantly reducing the number of required user parameters to set this complex process up. "Soft Clipping" even provides "analog" sound whenever desired. MASTER X3 is also available in the TDM format for ProTools HD.



#### MEGAREVERB

MEGAREVERB will provide you with studio-quality reverb that TC Electronic is famous for. MEGAREVERB'S technology is taken directly from the Core 1 and 2 algorithms of the TC Electronic M5000, with an enhanced tail design based on some more recent innovations in reverberation from TC Electronic. MEGAREVERB is also available in the TDM bundle of plug-ins, TC TOOLS for ProTools HD.



#### **POWERCORE 01**

POWERCORE 01 is an emulation of a classic mono synth. This single oscillator synth can produce vicious leads and fat basses, without draining the CPU of your computer.



#### **POWERCORE CL**

POWERCORE CL employs a different compression algorithm than the one found in the VOICESTRIP or the 24/7·C, instead emulating the behavior of an industry-standard analog compressor, aiming at general purpose dynamics processing rather than specific applications as provided with the VOICESTRIP or the 24/7·C.



#### VOICESTRIP

VOICESTRIP is all-in-one voice sound processing and is widely used among vocal producers that aim to have it all! This highly integrated plug-in is a complete channel strip for voice sound processing, with Compression, DeEssing, a dedicated Voice EQ, Lo Cut Filter and Gate!



#### TUBIFEX

Tubifex includes three tube stages and a speaker simulator for truly convincing amp modeling. Each of the three stages is based on a classic 12AX7 design and can be individually adjusted making the sonic possibilities virtually endless, from warm tones to screaming overdrive. The speaker simulator was derived directly from the impulse measurements of a 2 x 12 cabinet. Additional adjustments can be made with the

virtual microphone placement control, which simulates the subtle tonal variations achieved with different mic techniques.

Tubifex also includes a fingerprint-based noise reduction filter that allows settings to be saved independently from the amp settings. An expander enables further improvement of the overall sound. As a 'hybrid' plug-in, Tubifex uses both native and PowerCore DSP resources. Combining the strengths of both worlds results in very lowlatency processing, which enables guitar players to use Tubifex in real-time.

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#### DENOISE

DeNoise comes from TC's acclaimed Restoration Suite bundle.

DeNoise is optimized for broadband noise removal, from tape hiss to static environmental noise.

DeNoise is fingerprint-based and its edit tools allow manual adjustment of the analyzed fingerprints for even more precise processing results.

In version 1.5 the DeNoise plug-in has been updated with an 'auto' mode that makes it possible to remove noise from material where it is not possible to take a fingerprint - for instance if there are no parts with noise only. Fingerprints can now be adjusted independently for left and right channels.



#### DYNAMIC EQ

Dynamic EQ is a new tool for any mixing or mastering situation. This virtual processor eliminates the shortcomings of static EQ by providing a dynamically applied equalization.

The Dynamic EQ plug-in offers up to four definable bands working either in static or dynamic mode, or in

a mixture of both. Each of the bands can be configured as a parametric EQ or as a high or low shelving filter. The side-chain bands can be unlinked from the processing bands, so the high frequency content of a mix can control the low-end and vice versa. The pristine processing of this plug-in is all in 48-bit double precision, and may even be used in a phase linear mode, that is generous with transparent results.

Dynamic EQ represents a new generation of mastering tools for the POWERCORE platform and this virtual processor eliminates the shortcomings of static EQ by providing a marriage between dynamics processing and EQ.

On top of the plug-ins that are included with PowerCore, there is a broad selection of optional plug-ins available. These plug-ins are developed by TC Electronic as well as a number of 3rd party developers like Sonnox, Access, Novation, TC Helicon and Dsound. The optional plug-ins are available from store around the world and from TC's web shop.

When you buy an optional plug-in, it will be licensed to your PowerCore hardware and sent to you by email. Therefore, this procedure requires you to register your PowerCore and your email address.

## **ADDITIONAL PLUG-INS WITH POWERCORE 6000**

In addition to the Base Plug-ins described in the previous manual section, PowerCore 6000 also includes the following plug-ins from System 6000



The VSS3 Stereo Source Reverb for ProTools and PowerCore is a genuine and original reverb directly ported from the System 6000. The VSS3 algorithm was researched and finetuned by TC engineers for over a year, resulting in an exceptionally precise tool. Similar to the chaotic response of a natural room, the VSS3 reacts differently to identical signals.

Used for effects purposes, extensive modulation possibilities are offered for the creation of detuned or chorused sustain effects for e.g. vocal, guitar, piano or horns. Inherent in the VSS3 algorithm there are almost 800 parameters, equaling an astronomical amount of combinations, and this impressive set of parameters has been condensed to a very substantial and pertinent user interface. With the VSS3 you get a package of presets that have become industry standards. The sound of VSS3 can be heard on thousands of albums and films.



### MD3

The MD3 Stereo Mastering package brings processing only known from the System 6000 to ProTools and PowerCore. This package presents professional production and mastering possibilities to the realm of DAWs, and integrates smoothly with serious music and film editing applications.

Dual Mono and Stereo dynamics processing in three frequency bands. By offering a true side-chain split structure. MD3 is also capable of demanding mono material compression/limiting on two separate channels, not found in other multi-band dynamics processors. MD3 can be regarded as a high-end mastering tool. M and S components of a stereo signal can be processed separately and provide even more control making full use of the Spectral Stereo Enhancer.



#### BRICKWALL LIMITER

If you are concerned about audio quality at the end listener. or have a desire to conserve talent, the BrickWall Limiter is the solution. While it cannot prevent destruction of dynamic range from happening at earlier stages in the production process, it does get rid of the signals known to generate distortion in consumer CD players, radio processors and data reduction codecs.



#### NONLIN 2

NonLin2 Stereo Effects Reverb - from the legendary System 6000

The NonLin2 Stereo Effects Reverb for ProTools and PowerCore is another world class reverb directly ported from the System 6000.

NonLin2 is an effect reverb, which differs from the traditional natural sounding TC reverbs. NonLin2 is capable of generating compact vocal ambience, percussive and dramatic drum sounds, reverse reverbs and completely new "twisted" effects. Featuring an amplitude envelope that is capable of rendering an untriggered gated reverb and a 'twist' parameter, which can radically alter the sound, this plug-in delivers a serious advantage over other gated reverbs.

The easy-to-tailor and compact room-feel that this reverb adds to any lead vocal will set your mixes apart. As a producer or studio engineer, you'll be delighted by the creative power that this master tool delivers and it won't be long before you wonder how you coped without it.



#### DVR 2

The DVR2 Digital Vintage Reverb is another great professional reverb ported from the revered System 6000. It is available as a plug-in for ProTools and PowerCore.

TC Electronic has put much effort into preserving the qualities of the original processor, including sweet

modulation, spectral balance, spaciousness and saturation. But not only is DVR2 the most precise EMT250 emulation up to now, it also emulates its predecessor in the way parameters interact for different settings. DVR2 comes with customizable presets, focus fields for tweaking and navigation, and a built-in preset converter allowing seamless import of DVR2 presets from System 6000.

With the DVR2 for ProTools and PowerCore, it is now possible to save processing power on the System 6000 for other tasks - the choice is yours.

The vintage reset function produces a sound very close to a well preserved EMT250, which is still a favorite on lead vocal in studios fortunate enough to own one. The high resolution parameters allow for lower noise, extension of bandwidth, and control of the amount of chorusing.



UNWRAP

#### UnWrap - Available for PowerCore & TDM This full version mastering and film up-converter algorithm offers a high level of sophistication with unprecedented control and resolution. An abundance of parameters facilitates the conversion of stereo and LtRt sources to 5.1 while remaining faithful to the original mix's width, timbre, spaciousness and other significant factors.

With its wealth of controls, UnWrap<sup>™</sup> is a benchmark in film and music production. Whether you lack time to do a conventional 5.1 mix or a multitrack source simply doesn't exist – UnWrap<sup>™</sup> facilitates smooth and fast stereo to 5.1 up-conversion.

Once processed, the 5.1 output can be subsequently down-mixed to stereo again with no sonic penalties. Take a preset tour to spark your creativity, or start a new upmix from scratch. Processing is double precision, capable of running at any sample rate between 44.1 and 96 kHz.

UnWrap<sup>™</sup> includes customized up-conversion presets for film production and music mastering and comes with settings to complement it all.

Add to the default presets the ability to time-align all channels at sample precision, widen or narrow the image, control the amount of Center and LFE channel to be used, change filters and envelopes, and you begin to get an idea of the power of this plug-in.



#### TAP FACTORY - MULTITAP DELAY

Transcend the Average Delay - A Tweaker's Paradise

Let your creativity run wild with this delay/reverb hybrid. Easily design custom out-of-this-world effects that cross the

borders between Ambience, Early Reflections, Reverb and Delay.

Tap Factory makes customization of your sound a breeze and brings radical signatures to your productions. Tap Factory's extremely intuitive and clean user interface allows you to make individual parameter settings for each of its 24 taps within seconds.

Tap Factory includes a bonus LE version that allows you to run multiple instances per DSP on current PowerCore systems and supports first generation PowerCore hardware.

# **POWERCORE IN MAC OS X**

PowerCore supports both the VST and Audio Units plug-in formats in OS X. PowerCore plug-ins are always installed into the same locations in OS X, which is extremely convenient, especially when using multiple audio applications that rely on the same pool of plug-ins.

Audio Units are supported by an "adapter" that transparently "adapts" the VST plugin to the Audio Units format. In an Audio Units Host Application like Logic, the plug-in will appear and behave as a standard Audio Units plug-in. Our Audio Units Wrapper will automatically work with Sonnox, TC-Helicon, Access and other 3rd party PowerCore plug-ins.

#### **OS X Domains**

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OS X is designed for networking, and uses a hierarchy of "virtual locations" called Domains. PowerCore plug-ins are installed into one of two domains: the Local Domain, and the User Domain. The Local Domain can have multiple users.

PowerCore plug-ins are installed in the Local Domain, while presets are installed in the User Domain of the person installing the software. Each plug-in is installed as a VST plug-in. Our TCAU Audio Unit Component takes care of the Audio Unit support.

#### Getting Audio Unit Support for optional PowerCore Plug-ins

When new optional plug-ins are installed, you'll need to update the TCAU Audio Unit component in order to gain AudioUnit support for these new plug-ins. This can be done by launching the actual PowerCore installer, and selecting the "Refresh AudioUnits Only" installation option.

Refresh Audio Uni 🛟	Read M
This will install the Audio Units Plug-In adapt POWERCORE Plug-In to the VST Plug-Ins fold installer to update Audio Unit support.	
Disk space available :> 468 // - Install Location	Approximate disk space needed: 1.244

#### Default PowerCore Plug-in Locations (LOCAL DOMAIN)

OS X/Library/Audio/Plug-ins/VST

#### **PowerCore Control Panel Location**

**OS X/Applications** 

#### Default Location PowerCore plug-in presets

~/Library/Applications Support/PowerCore

# **POWERCORE IN WINDOWS**

If you would like to access the PowerCore plug-ins from within your Windows based sequencing environment, you need to install the supplied plug-ins in the same location as all of your other VST plug-ins. The installer scans for all of the appropriate VSTPlugIns folders and prompts you to select a destination directory during installation.

Program Files/Steinberg/VSTPlugIns/PowerCore Program Files/Emagic/Logic Audio Platinum/VSTPlugIns/PowerCore

#### **DIRECT X WRAPPERS**

Some Windows based applications use the DirectX plug-in format instead of the VST plug-in format. PowerCore does not directly support DirectX. If you would like to use PowerCore in a DirectX application such as Sound Forge, we suggest that you use a wrapper such as the "VST-DX Adapter" from Cakewalk. This is available for a fee directly from the Cakewalk website.

Please note that as TC does not support DirectX, you should also contact customer support for the creator of your DirectX wrapper or adapter should you encounter problems with PowerCore plug-ins within a DirectX application

# **POWERCORE FIREWIRE MESSAGES**

#### **POWERCORE FW FRONT PANEL**

The blue Power Pulse and the other LEDs on the front panel are more than just a lightshow: they provide feedback about the PowerCore FireWire operating environment.



#### **POWER LED**

Nothing fancy here. This LED lights up when power is on.

#### **POWER PULSE**

During boot, the Power Pulse will rise to maximum brightness, and then begin to pulse, until driver and PowerCore board OS is loaded. The Power Pulse will flash once to indicate when a plug-in is successfully loaded. After the first plug-in is loaded, the Power Pulse will enter steady state.

#### ERROR LED

The Error Led will only light up when there is something wrong with the unit. Should the Error LED ever become active, there probably is a hardware problem and you should contact TC support.

## **TROUBLE SHOOTING**

#### Where can I download the latest PowerCore drivers?

We are continuously working on improving the PowerCore software. Therefore we recommend to check our website for the latest software, prior to installing the software that came with the product to make sure you have the most current version.

The latest version of the PowerCore Software can be downloaded from the TC PowerCore product pages. Locate your PowerCore in the Product Menu and select "Software" from the product sub-page. Next to the latest version of the software, you will also find the software version history.

#### I can run half the number of effects at 96 kHz than I can at 48 kHz.

This is correct! When you double sample rate, you double the DSP resources required!

#### PowerCore plug-ins don't show in my applications plug-in selection dialog.

Please double-check that you have installed the plug-ins to your application's VST/AudioUnit plug-in folder. If you are not able to see ALL of your PowerCore plugins, please read the next point!

#### I don't see all PowerCore plug-ins in my native mixer's inserts, sends or master.

Like other VST/AudioUnit plug-ins, PowerCore plug-ins might come in different versions (mono/mono, mono/stereo, stereo/stereo). Depending on your host application and the plug-in, you might only see the version appropriate for e.g. the inserts or sends.

#### Every-time I load a plug-in in LOGIC or DIGITAL PERFORMER, my application Quits.

When you use a PowerCore plug-in in an Audio Units application such as LOGIC or DIGITAL PERFORMER, you must have the plug-ins installed into both the Audio Units and VST plug-ins folders of your system. If you remove the VST plug-ins, then the Audio Unit versions will not work. If you experience application crashes when loading a PowerCore plug-in, please reinstall the plug-ins to make sure that the plug-ins are included in both locations.

#### The input of my PowerCore plug-in is clipping (and/or I hear distorted audio).

It is very important to avoid clipping of the input signal – the signal you send into a PowerCore plug-in should not be greater than 0 dBFS! We suggest you leave some marginal headroom!

#### My source audio is mono after inserting a PowerCore plug-in.

There are different versions of many PowerCore plug-ins, to provide you with a maximum of flexibility. Depending on the plug-in, you might have mono/mono, mono/stereo and stereo/stereo versions of each plug-in. If your host application displays all versions to select from, make sure you select the stereo version for stereo processing! So running a mono/mono or mono/stereo plug-in would merge your source material to mono before processing.

#### The plug-in doesn't open or there is no audio when I activate the plug-in.

If this is the case, there might be an issue with the plug-in's authorization. In the case of the included plug-ins, please reinstall the plug-ins – if that doesn't help,contact customer support.

With optional PowerCore plug-ins, you can freely make backup-copies of plug-ins that you have purchased – but, with the exception of the included plug-ins, you can not copy them over to other systems and expect them to function! Each card is unique, and the software is unique for each card, too! Contact your plug-in manufacturer in the case you have authorization problems such as this.

#### The audio is corrupted.

The minimum I/O buffer size for PowerCore to work properly is 128 samples – please verify the I/O buffer settings in your host application. We recommend 1024 samples for a minimal "hit" on the host!

# FURTHER SUPPORT RESOURCES

NOTES

#### TC ELECTRONIC KNOWLEDGEBASE

In case none of the above answered your questions, please check out our Knowledgebase at www.tcsupport.tc.



In the unlikely case that none of the answers in our Knowledgebase help you, you should send an email to the TC Support Team.

#### CONTACTING THE TC ELECTRONIC SUPPORT TEAM

Please have the following information at hand when you contact the TC Support Team:

#### 1. Authentication ID of your PowerCore.

This information can be found in the PowerCore control panel under the STATUS tab. Please refer to page 17 on how to locate and open your PowerCore control panel.

#### 2. System details.

This means we need to know your operating system version.

Are you on Windows XP SP2 or Mac OSX 10.2.8? Be sure to note this down before you get in touch with us.

What is your CPU speed and amount of RAM?

Under Windows this information can be found My Computer > Properties > General. Under MacOS X go to the Applications folder > Utilities and open "System Profiles". Any special modifications to the hardware of the computer? Please, make a note of this too.

#### 3. Peripherals.

What other stuff are you using along with the PowerCore and your computer? Any PCI-cards, USB-devices, FireWire devices?

#### 4. PowerCore driver version.

This information can be found in the PowerCore control panel under the STATUS tab. Please refer to page 17 on how to locate and open your PowerCore control panel.

#### 5. Nature of the problem.

Are you getting any error messages? If so, what do they say? Be sure to note down the complete error message text as it contains useful information for the TC Support Team. Steps to reproduce the problem. What do you do exactly to make the problem appear? Please describe in detail, the steps necessary to reproduce the problem.

We know this is a lot of details but in most cases knowing these things in advance will help the TC Support Team answer your query faster!



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