Manual

Creon Model 1410

High Performance USB Audio Interface & Monitor Controller

Content

Content

Version 1.1 – 04 / 2018

Developer: Jens Gronwald

This manual contains a description of the product SPL Creon, Model 1410. In no way it represents a guarantee of particular characteristics or results of use.

The information in this document has been carefully compiled and verified and, unless otherwise statedor agreed upon, correctly describes the product. Sound Performance Lab (SPL) continuously strives to improve its products and reserves the right to modify the product described in this manual at any time without prior notice.

Content

Scope of Delivery

Creon

12 V power supply

USB cabel

Product Overview

Measurement & Weight

Height x Width x Depth in mm: 67 x 330 x 212

Weight: 2,7 kg (without external power supply)

Please keep the original packaging. In case of a service procedure the original packaging ensures a safe transport. It also serves as a safe packaging for your own transports if you do not use special transportation cases.

Content

Welcome

and thank you for purchasing the Creon. It combines a high-performance USB audio interface with high-quality preamps and a separate, fully-featured analog monitor controller. You can play and play back, record and convert, control and listen with one single device. So all you essentially need for a truly professional recording setup is the Creon and a DAW.

With and without DAW

Creon is designed to operate with your Digital Audio Workstation. But you can also do a lot with it as a stand-alone device: plug in an instrument and play. Connect a microphone and sing along. Mix your own monitor signal with playback or guide tracks from any source. What you are playing is not bad? Turn on the DAW and record it.

Content

Hardware

USB 2-Audio-System

High-performance, 32 bit microcontroller

24 bit audio processing

2 input and 2 output channels

Sample rates (kHz): 44.1, 48, 88.2, 96, 176.4 or 192

Fixed master clock for lowest jitter

True 1:1 audio, no sample rate conversion or clock recovery

Software

Windows XP/7/8/10 (32 & 64 Bit), Mac OS X 10.6 or higher, iOS 6 or higher

Multi-application mode, simultaneous ASIO and/or WDM playback

Low-latency driver

Driver feedback synchronization to hardware clockk

ASIO control panel for Windows

USB Audio Class 2.0 compliance (asynchronous mode)

Firmware updates via USB.

Info:

Download the latest drivers and firmware from www.creon.spl.info.

Mac OS: There is no need to install drivers for the Creon!

Content

AD Conversion

Dynamic Range

44.1 / 48 kHz: 128 dB

88.2 / 96 kHz: 123 dB

SNR:

44.1 / 48 kHz: -113 dB

88.2 / 96 kHz: -110 dB

THD+N ratio at 1 kHz (-1 dBFS):

44.1 / 48 kHz: 0,002%

88.2 / 96 kHz: 0,0025%

0 dBFS = +15 dBu

Sample Rates (kHz): 44.1, 48 , 88.2, 96, 176.4, 192

DA Conversion

Dynamic Range

44.1 / 48 kHz: 124 dB

88.2 / 96 kHz: 122 dB

SNR:

44.1 / 48 kHz: -109 dB

88.2 / 96 kHz: -107 dB

Placement

Place the unit on a leveled and stable surface or mount it in a dedicated rack frame. The unit's enclosure is EMC-safe and effectively shielded against HF interference. Nonetheless, you should carefully consider where you place the unit to avoid electrical disturbances. It should be positioned so that you can easily reach it, read the meters and status LED's well, but there are other considerations as well. Try not to place it near heat sources or in direct sunlight, and avoid exposure to vibrations, dust, heat, cold or moisture.

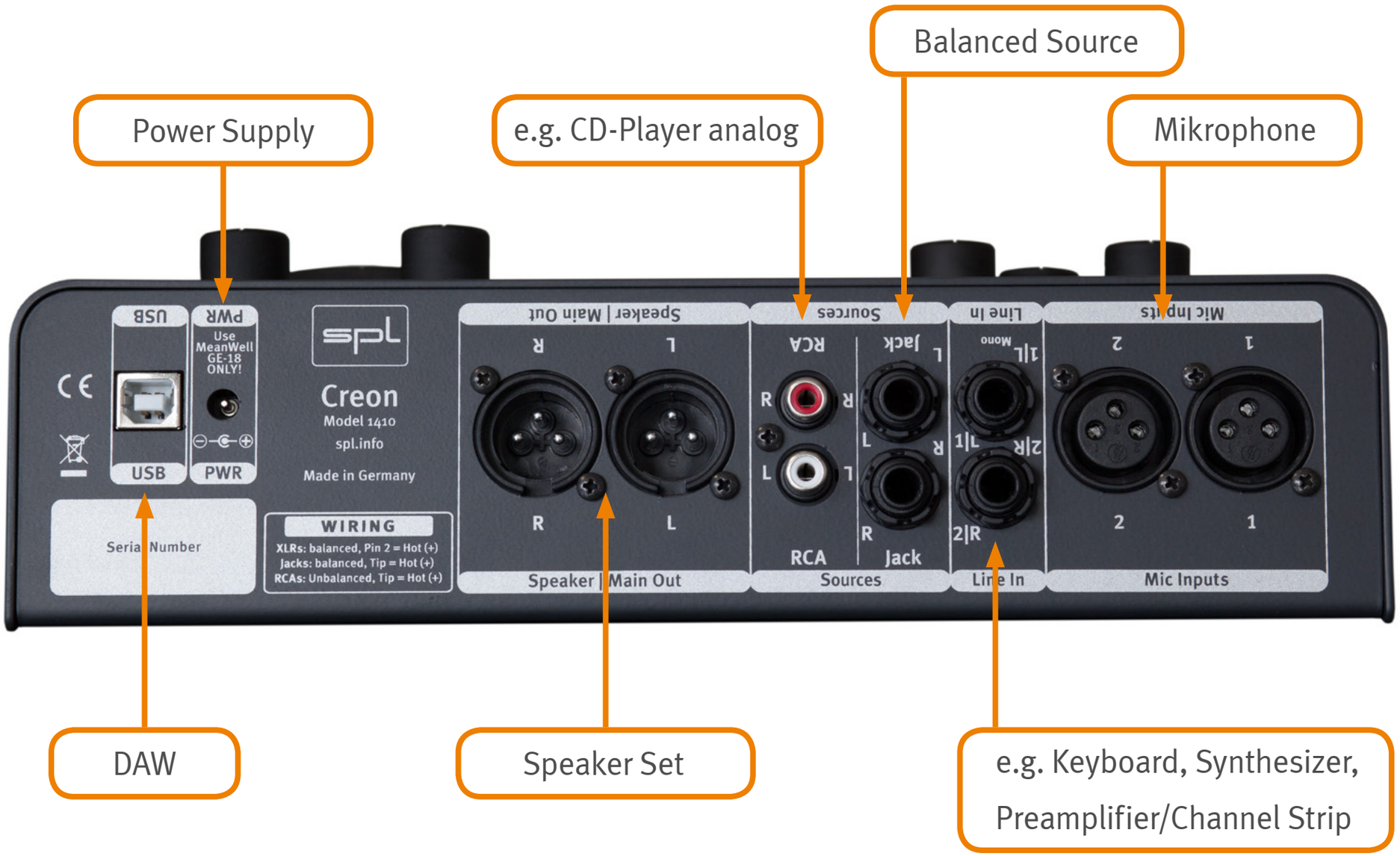
Additional safety instructions on page 41.

For more information on how to calibrate your monitoring system please refer to pages 38 and 39.

Front Panel: Wiring Diagram

Content

Raer Panel: Wiring Diagram



Content

USB

Connect here your computer. Alternatively you can connect an iPad or iPhone with the original Apple camera adapter. The USB port complies with the Hi-Speed USB 2.0 specification with a data transfer rate of 480 MBit/s, and is Apple Class 2 compliant as well.

USB 3 is backward compatible with USB 2, which means that the Crimson can also be connected to any USB 3 port. The Hi-Speed USB 2 specification is enough to provide the Creon with the necessary data throughput. We decided to use the USB 2 interface due to the reliability of the drivers..

The package includes an appropriate USB cable.

In case you use a different cable, make sure it complies to the Hi-Speed USB 2 specification. It recommends a maximum length of five meters. We recommend to keep the cables as short as possible, remember: the shorter, the better. For cable runs extending over five meters, you could use a hub or a line extender, in which case you should get the advice of an expert.

Content

Power Connection

Connect the DC connector of the external power supply to the rear DC IN socket of the Creon. Plug the power supply to a wall power socket..

The PSU comes with an appropriate mains adapter for the country where the Creon is bought. You can find detailed information in the separate sheet along with the safety instructions.

Power Supply

External Power Supply: Mean Well GE-18

Input 100–240V AC/50–60 Hz; Output 12V DC/1,5A

Internal Power Supplies

Audio: +/- 17 V, Digital + 5 V and + 3,3 V

Power Consumption: 16,8 Watt

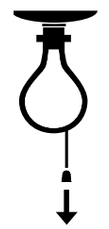
Content

Signal Connections

Remove the DC plug from the Creon and make sure all connected gear is switched off before tinkering with the cables.

We recommend to connect the Creon and all other audio devices in the same network to a high-quality and appropriately rated multi-outlet power strip from where you can cut-off and restore the power supply.

In any case, the connection of the audio network to a power outlet is the general recommendation, in order to avoid ground loops and other similar noises that could arise due to connection points having different potentials.



Speaker Outputs (Speaker | Main Out)

You can connect one set of active stereo speakers or a power amplifier to Creon.

Specifications:

XLR balanced

(Pin 1=Ground, Pin 2=cold, Pin 3=hot)

Output impedance 75 Ohm unbalanced, 150 Ohm balanced

Maximum output level +22.5 dBu.

Content

Sources 1 and 2

You have two stereo source inputs with different connectors at your disposal: Source input 1 via two mono jacks (balanced), Source input 2 via two RCA connectors.

This means you can connect two audio devices as playback sources, be it a CD or MP3 player, a tape machine or even a smartphone.

Typical applications include the use of reference tracks to do A/B comparisons or playing an instrument on top of a song while listening to it — everything without the need to connect the Creon to a computer.

IMPORTANT:

The source inputs are conventional playback channels. Their signal cannot be recorded with a DAW.

Content

Source 1: Jack

Connect here signal sources with balanced connections, for example, a DA converter.
If you only connect the left channel, the signal is automatically placed as mono in the monitoring path (in the center of the stereo image).

Specifications:
1/4“ jack, balanced
(Sleeve=Ground, Tip=hot, Ring=cold
Input impedance: 10kOhm unbalanced, 20kOhm balanced
Maximum input level +22.5 dBu.
Frequency Response: 10Hz - ›200kHz
Noise: -95 dBu (unweighted, unity gain, input termination 600 Ohm)
Common Mode Rejection ratio: ‹ -60 dBu
THD+N Ratio: 0,002% (at 1kHz, unity gain, input termination 600 Ohm)

Content

Source 2: RCA

RCA connectors are ideal for any type of consumer devices with unbalanced connections, for example CD/DVD/BluRay player, AV receiver, Sat receiver, cable receiver, etc. Input level is boosted to pro level (0 dBu) by default.

Specifications:

RCA connector

Input impedance: 10kOhm

Maximum input level +22.5 dBu

Frequency Response: 10 Hz - ›200 kHz

Noise: -90 dBu (unweighted, unity gain, input termination 600 Ohm)

Noise: -85 dBu (unweighted, -10dBV, input termination 600 Ohm)

THD+N Ratio: 0,003 % (at 1 kHz unity gain, input termination 600 Ohm)

THD+N Ratio: 0,003 % (at 1 kHz, -10 dBV, input termination 600 Ohm)

Content

Input Selection:

Microphone-, Instrument- und Line Inputs

Taking into account both microphone inputs, the instrument and four line inputs, you have five analog inputs at your disposal. Two of the five inputs can be used simultaneously for recording purposes.

The selection is defined by the assignment of the corresponding inputs. This has the added advantage that the channel configuration can be directly and intuitively made out by the assignment of the connections, plus there is almost no need for switching.

The input selection follows this provision:

Line 1|2 has preference over Mic Input 1|2

Instrument input has preference over Mic input 2 and Line input 2

IMPORTANT:

To record microphone signals, Line 1 and/or Line 2, Instrument ought to be free. If you cannot hear a microphone signal, check whether Line 1, Line 2 or Instrument input are free or not.

Content

Mic Inputs

You can connect dynamic, condenser, tube, and ribbon microphones to the mic inputs. Use the Phantom switch to provide phantom power to the microphones that require it. For more information, read the „48 V“ section on page 28.

Specifications: XLR connectors

Input impedance 10 kOhm

Maximum input level +14.5 dBu (Gain knob hard left).

Frequency Response: 10 Hz - ›200 kHz

Noise: -90 dBu (unweighted, 30dB gain, input termination 150 Ohm)

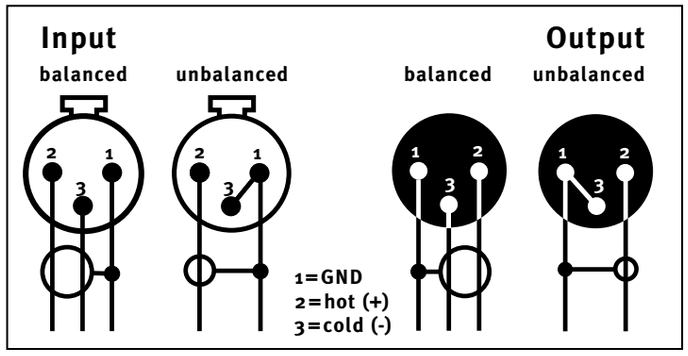
Equivalent Input Noise: -128 dBu

Common Mode Rejection Ratio: ‹ -70 dBu

THD+N Ratio: 0,003 % (at 1 kHz, 30 dB gain, input termination 150 Ohm)

XLR Sockets

The image below shows the XLR connectors pinout. They are balanced and have three conductors or wires. Conductor 2 (Pin 2) corresponds to the (+) or hot Signal. The diagram also shows how to wire the balanced XLR connections if unbalanced connections are required, for example to RCA or TS inputs and outputs



Content

Line Inputs

You can connect and record two line signals. Besides keyboards and synths you can connect here other external sources like preamps or channel strips. Both balanced line inputs are routed 1:1 to the converter and monitoring section. Level adjustment is not possible.

Specifications:

1/4“ stereo jacks, unbalanced

Input impedance 10 kOhm, balanced input impedance 20kOhm

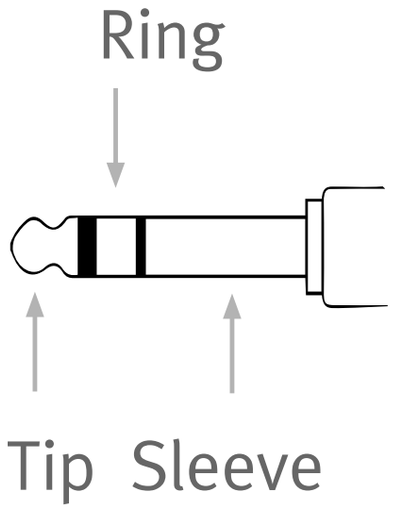
Maximum input level +22.5 dBu

Frequency Response: 10 Hz - ›200 kHz

Noise: -95 dBu (unweighted, unity gain, input termination 600 Ohm)

Common Mode Rejection ratio: ‹ -60 dBu

THD+N Ratio: 0,002 % (at1 kHz unity gain, input termination 600 Ohm)



Instrument Input

The Instrument input is on the front panel so it can be reached directly. It supports high levels to allow the connection of active or passive instruments, and it has a corresponding high impedance. Active instruments already feature a preamp circuit, passive do not (only pickups). Connection examples: electric guitars and basses, acoustic guitars with pickups, etc.

Specifications:
1/4“ mono jack, unbalanced
(Sleeve=Ground, Tip=hot/Signal)
Input impedance 1.1 MOhm, maximum input level +24.0 dBu
Frequency Response: 10Hz - ›200kHz
Noise): -85 dBu (unweighted, unity gain, input termination 100 kOhm
THD+N Ratio: 0,005 % (at 1kHz unity gain, input termination 100 kOhm)

IMPORTANT:
Low impedance line signals (D/A converter, sampler, synthesizer, etc.) ought to be connected to the line inputs on the rear panel.

Content

Phones

Use the Phones jack on the front panel to connect your headphones. You can connect all types of headphones with impedances from 20 to 600 Ohm. This wide range entails big volume differences between low- and high-impedance headphones. In order to keep under control low impedance headphones, we set a comparatively high impedance of 33 Ohms at the output.

Specifications:

1/4“ stereo jacks

(Sleeve=Ground, Tip=left channel, Ring=right channel)

Output impedance 33 Ohm

Frequency Response: 10Hz - ›200kHz

IMPORTANT:

When connecting them, make sure that the plug is completely in and that is firmly attached.

Power at 0 dBu:
47 Ohm load: 13 mW
300 Ohm load: 1,7 mW
600 Ohm load: 1,0 mW

Power max.:
47 Ohm load: 670 mW
300 Ohm load: 265 mW
600 Ohm load: 150 mW

THD+N Ratio (at 1 kHz, Power at 0dBu)
47 Ohm: 0,0026 %
300 & 600 Ohm: 0,002 %

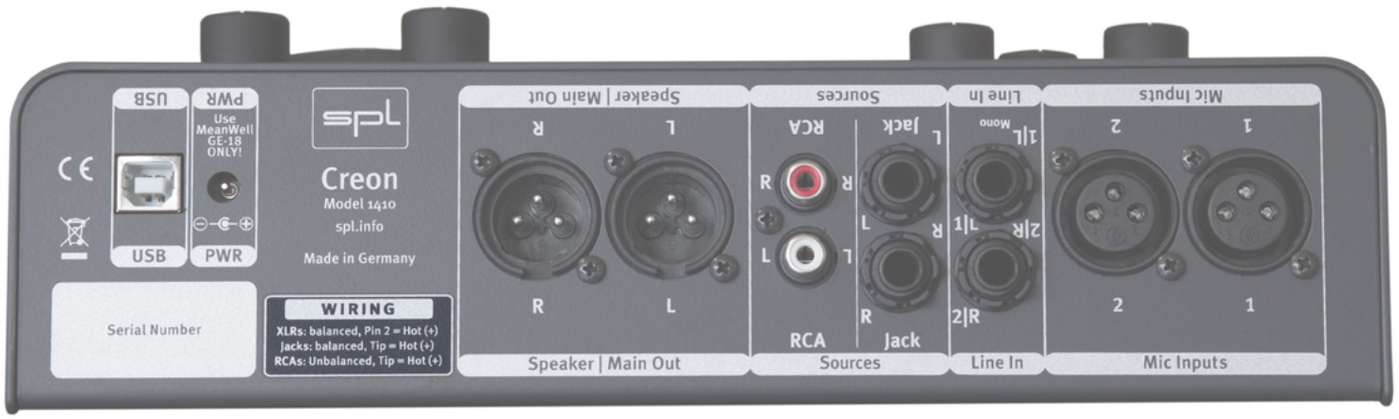
Content

Important Recommendations

Always reduce the volume before you connect or disconnect your headphones or headphone preamp, for example to change headphones. This way you will avoid loud crackling noises reaching your ears. Plus, it will also spare you unexpected surprises whenever the new headphones you connect have a lower impedance or a higher efficiency, which will make them sound louder when connected to the Creon and keeping the same volume setting.

Never connect mono plugs to the stereo jacks on the front panel. Otherwise you can cause a short circuit that will damage the amplifier! Headphone cables always have stereo plugs.

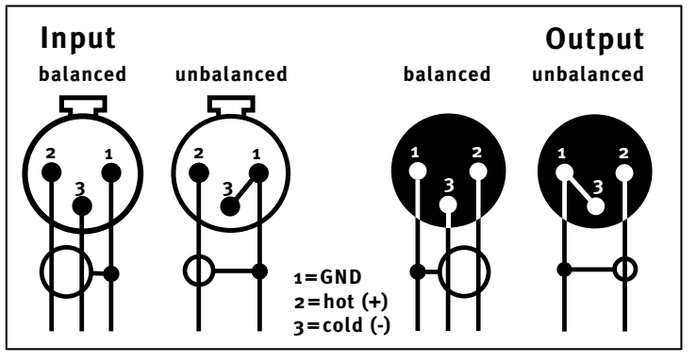
Content



Unbalanced Connections

XLR/Stereo Jack to Mono Plug/RCA

Unbalanced connections are also possible without the need of an adapter. It is important to verify the polarity of the three balanced wires. The image shows the pinout of the XLR connectors, as well as the correct polarity for connections with unbalanced cables, whereby Pin 1 and 3 ought to be connected (for the stereo plug: ring and ground). We recommend the use of specially manufactured 1/4“ stereo jack/XLR to 1/4“ mono plug/RCA cables to avoid the use of adapters. Such cables can be found in specialized shops. The pinout diagram will help the specialist dealer make sure he provides you with correctly configured cables.



Content

Control Elements

Mic Gain

The Creon features two identical microphone preamps. The preamps are discrete, which means they use single transistors instead of ICs. This allows the preamp to be perfectly optimized for its task — such efforts are usually taken only in the production of high-end preamps.

Use the Mic Gain control to adjust the microphone preamp level. The adjustable volume range spans from +3 to +60dB. To achieve the best recording level, the -6dB LED should flash from time to time: you have enough headroom left. If the LED remains always on, it means that the level is at the brink of overloading — in such cases, you should reduce the Mic Gain value.

The OVL LED indicates the Creon‘s converter is overloading, which should be strictly avoided.

To record microphone signals, Line 1 and/or Line 2, Instrument ought to be free. If you cannot hear a microphone signal, check whether Line 1, Line 2 or Instrument input are free or not.

IMPORTANT:

Line 1|2 has preference over Mic Input 1|2

Instrument input has preference over Mic input 2 and Line input 2

Content

48V

Use the 48V switch above the Mic Gain knob to activate the 48 Volt phantom power to supply condenser microphones with an integrated preamp. To work correctly such microphones require a clean, noiseless voltage, which the Creon can provide.

IMPORTANT:

First connect the microphone to the Creon and then engage the phantom power. Now you can start to work. Once you are done, disengage the phantom power first. Wait at least ten seconds after disengaging the 48 V phantom power, before you disconnect the microphone from the Crimson, to allow for complete discharging — otherwise you could damage the Creon‘s input stages.

VERY IMPORTANT:

All condenser microphones with a balanced, floating output, as well as ribbon microphones, can be used with phantom power. A microphone with an unbalanced output should only be used without phantom power! We recommend you to disengage the phantom power for all types of microphones except condenser microphones .

Content

High-Pass Filter

The high-pass filter passes high-frequency signals but filters out impact noise, rumble and other unwanted noises below 75 Hz. This first order filter has a 6dB/octave slope, which means it is soft and goes unnoticed acoustically speaking.

Besides impact noise, other unwanted noises include the ones produced when handling the microphone.

Application examples:

Stage miking, speech recordings, vocals and high-pitched instruments where you are sure that you will not need to record lower-pitched neighboring instruments.

Another aspect you should consider: low frequencies require a lot of energy during conversion, which is another argument for engaging the high-pass filter when the recording allows for it.

Content

Instr Gain

The Creon also includes an instrument preamp. Use the Instr Gain control to adjust the instrument preamp level in steps. The adjustable volume range spans from -6 to +31dB. The possibility to reduce the level -6dB allows for the direct connection of electric bass guitars. To achieve the best recording level, the -6dB LED should flash from time to time: you have enough headroom left. If the LED remains always on, it means that the level is at the brink of overloading — in such cases, you should reduce the Instr Gain value. The OVL LED indicates the Crimson‘s converter is overloading, which should be strictly avoided.

IMPORTANT:

Instrument input has preference over Mic input 2 and Line input 2

LED Indicators

The central LED display panel provides information about the operating status and also helps you adjust better microphone and instrument signals.

Level Adjustment with two LED sets

Two traffic-light-like LED sets indicate the level of the four recording channels. Every set of LEDs is numbered: set 1 correspond to mic preamp 1 and set 2 correspond to mic preamp 2 and the instrument preamp.

Each LED set is identical to the others:

The OVL LED lights red to indicate the Crimson‘s converter is being overloaded

The -6 (dB fs) LED lights yellow. An optimally adjusted level makes it flicker on and off from time to time

The SIG LED lights green and indicates the presence of a signal

OVL › +15 dBu (Host LED on)
› +20 dBu (Host LED off)

-6 › +9 dBu

SIG › -20 dBu

Content

Special note regarding the OVL LED:

this LED is directly connected to the converter and thus indicates the overloading of the converter. Make sure it never lights during a recording, otherwise you risk ending up with a useless take due to the presence of audible distortion. As a safety measure, the OVL LED remains lit for around a second.

Status LEDs

The PWR LED indicates the power supply of the unit.

The HOST LED indicates that a host computer has been detected at the USB port and the connection has been correctly established.

Note:

When used standalone, without DAW or iPad connected to the USB port, the digital section is not initialized. And since the OVL LED is controlled directly by the converter, if not initialized, the OVL LED is inactive.

Analog Inputs

The Creon allows the simultaneous recording of two analog inputs.

Switch 1|2 engaged: you hear Mic or Line inputs 1 and 2.

When recording a mono vocal track it makes sense to hear it in the center of the stereo image, so you should engage the Mono switch as well.

DAW Returns

The Creon has two DA converters that allow you to monitor a stereo signals (two channels) from the DAW.

Switch 1|2 engaged: you hear the Mix from DAW outputs 1/2.

Content

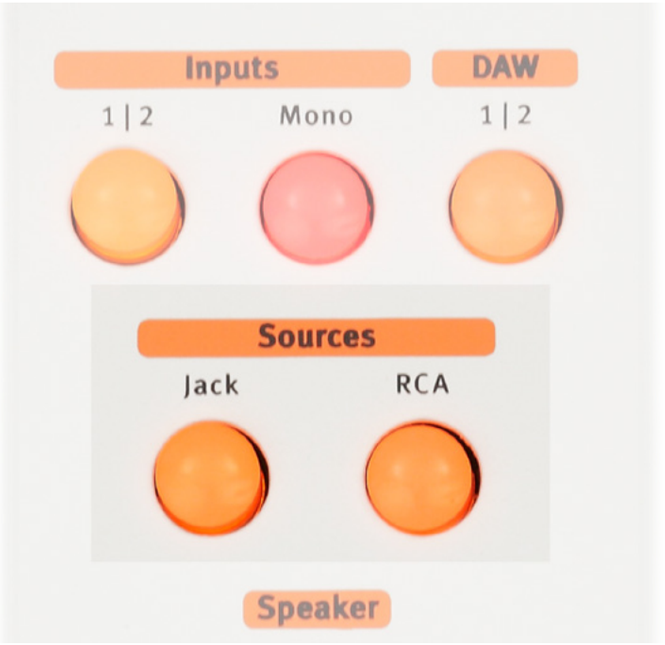
Sources

As a true monitor controller, you can also use the Creon as a preamp for two stereo sources. Use the two switches under Sources to manage the two source inputs, which are named after their connector format. For more information on the connectors refer to „Sources 1 and 2“ on page 16.

JACK = balanced 1/4“ input (for a professional CD player or a converter, for example)

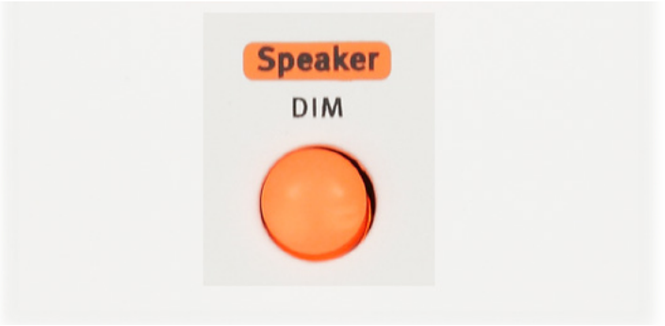
RCA= unbalanced RCA input (Hi-Fi CD player, AV receiver or similar)

Note: the level of both unbalanced inputs is automatically converted to professional level in order for them to be directly comparable according to the Creon‘s standard level.



Speaker DIM

The DIM switch reduces the monitoring level -20dB.



Content

Monitor Mix

With the Monitor Mix control you create a monitor mix fast and easily. No need to fi ddle with gain controls or faders, just blend between the Inputs (mic, line, instrument) and the DAW/Sources.

The analog monitoring of all analog inputs and sources is absolutely latency-free, it is as real-time as it gets.

In the center position (1:1), the volume of the analog inputs (mic, line, instrument) and DAW returns and sources is balanced. When set hard left, you can only hear the analog inputs (mic, line, instrument). Hard right you can only hear the DAW returns and sources through your monitoring system.

Phones

The Creon features a powerful headphone amplifier. Use the Phones volume control to adjust the level of the headphones signal.

Headphones volume adjustment is also independent from that of the loudspeakers. The outputs and gain are designed for headphones with impedances from 20-600 Ohms. For more details regarding the connection of headphones, refer to „Headphone Outputs“ on page 23.

Optimal Potentiometer Control Range

The control range of the headphone amplifiers is very wide: it allows you to listen to very high level signals with 30 Ohm headphones, as well as to detect the faintest details in quiet passages with 600 Ohm headphones. To achieve such a wide range, and due to component characteristics, a constant taper during the beginning of the travel of the potentiometer cannot be guaranteed. A reduction of the overall volume would also lower the tolerance in this initial range, but at the price of wasting power margin. Thus, we recommend you to adjust the level above the „1“ mark to achieve the best results.

Volume

Use the Volume potentiometer to adjust the volume of both channels of the Speaker|Main Out outputs on the rear panel. The high-grade potentiometer regulates the audio signal directly to avoid any coloration/distortion typical of VCAs and DCAs, which require higher inter-channel tolerances and have a tendency towards higher distortion figures. The Volume control uses a relative dB scale referenced to the input level. When set to the 0dB mark the input level is „as is“ (the amplification factor is 1 or unity gain).

The signal can be attenuated up to -78dB.

If the signal can still be heard when hard left, do not worry: the potentiometer is not a switch. This was a conscious decision we made to be able to offer you an amplification possibility too. Power off the source when you want to mute it.

Recommendation: Calibrate the whole monitoring system (read the following section) so that the control range in use is always between eight and two o‘clock of the travel. This is the range where the potentiometer works best, which guarantees a good and noiseless level matching for the monitoring system.

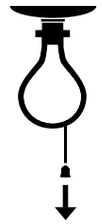
Content

Calibration of the Monitoring System (Part 1)

The input signal level of the Creon and the input sensitivity of the power amps or active speakers should be matched to ensure a proper overall gain. An inappropriate matching results, for example, in an extremely high monitoring level with a fairly low volume setting (at 9 o‘clock). Likewise, settings above two o‘clock should sound really loud, otherwise it is indicative of a matching problem.

During calibration it can get very loud and annoying, so don‘t forget to wear ear protection.

For calibration we recommend using a SPL Meter (where SPL stands for „Sound Pressure Level“). Place the measuring microphone at the listening position and play-back pink noise from a generator calibrated to 0dBu. Each measurement should be done with one channel (and loudspeaker) at a time. 83dB SPL at the listening position is a good and very common reference value.



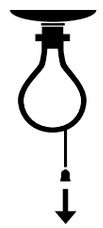
Calibration of the Monitoring System (Part 2)

Adjust the volume control until the SPL meter reaches 83dB with pink noise.

Ideally, 83dB SPL should be reached when the volume control is near the 12 o‘clock mark.

Write down the exact value for 83dB SPL at the listening position. If it only reaches 83dB SPL above two o‘clock, increase the power amps‘ or active loudspeakers‘ input sensitivity (higher dB value).

Conversely, you should decrease the power amps‘ or active loudspeakers‘ input sensitivity (lower dB value) when it indicates 83dB SPL before reaching the 12 o‘clock mark.



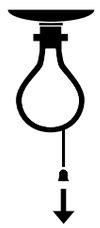
Exclamation mark within a triangle

An exclamation mark within a triangle is intended to make you aware of important operational advice and/or warnings that must be followed. Be especially attentive to these and always follow the advice they give.

Lightning symbol within a triangle

In this Manual a lightning symbol within a triangle warns you about the potential for dangerous electrical shocks – wich can also occur even after the device has been disconnected from a power source.

Symbol of a lamp



The symbol of a lamp directs your attention to explanations of important functions or applications.

Content

Connections

Only use the connections as described. Other connections can lead to health risks and damage the equipment.

Water and humidity

Do not use this device anywhere near water (for example in a bathroom, a damp cellar, near swimming pools, or similar environments). Otherwise your are dealing with an extremely high risk of fatal electrical shocks!

Insertion of objects or fluids

Be careful to not insert any object into any of the chassis openings. You can otherwise easily come into contact with dangerous voltage or cause a damaging short circuit. Never allow any fluids to be spilled or sprayed on the device. Such actions can lead to dangerous electrical shocks or fire!

Air ventilation

Chassis openings offer ventilation and serve to protect the device from overheating. Never cover or otherwise close off these openings. Never place the device on a soft surface (carpet, sofa, etc.)..

Electrical power

Operate the device only from power sources that can provide proper power. When in doubt about a source, contact your dealer or a professional electrician. To be certain you have isolated the device, disconnect all power and signal connections. Make sure that the power supply plug is always accessible. When not using the device for a longer period, make sure to unplug it from your wall power socket.

Opening the unit

Simply put: DON‘T, if you are not a certified SPL technician or engineer. Really: Do not open the device housing, as there is great risk you will damage the device, or – even after being disconnected – you may receive a dangerous electrical shock!

Content

Power connection overloads

Avoid any kind of overload in connections to wall sockets, extension or splitter power cords, or signal inputs. Always keep manufacturer warnings and instructions in mind. Overloads create fire hazards and risk of dangerous shocks!.

Lightning

Before thunderstorms or other severe weather, disconnect the device from wall power; do not do this during a storm in order to avoid life threatening lightning strikes. Similarly, before any severe weather, disconnect all the power connections of other devices and antenna and phone/network cables which may be interconnected so that no lightning damage or overload results from such secondary connections.

Controls and switches

Operate the controls and switches only as described in the manual. Incorrect adjustments outside safe parameters can lead to damage and unnecessary repair costs. Never use the switches or level controls to effect excessive or extreme changes.

Repairs

Unplug the unit from all power and signal connections and immediately contact a qualified technician when you think repairs are needed – or when moisture or foreign objects may accidentally have reached inside the housing, or in cases when the device may have fallen and shows any sign of having been damaged. This also applies to any situation in which the unit has not been subjected to any of these unusual circumstances but still is not functioning normally or its performance is substantially altered. In cases of damage to the power supply and cord, first consider.

Replacement/substitute parts

Be sure that any service technician uses original replacement parts or those with identical specifications as the originals. Incorrectly substituted parts can lead to fire, electrical shock or other dangers, including further equipment damage.

Safety inspection

Be sure always to ask a service technician to conduct a thorough safety check and ensure that the state of the repaired device is in all respects up to factory standards.

Cleaning

Do not use any solvents, as these can damage the chassis finish. Use a clean, dry cloth (if necessary, with an acid-free cleaning oil). Disconnect the device from your power source before cleaning.

Disclaimer

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SPL cannot be held responsible for damage caused by improper use or modification of the device or data that is lost or destroyed..

▶ Declaration of CE Conformity

CE

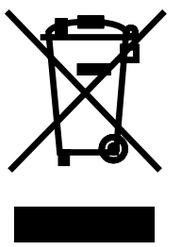
The construction of this unit is in compliance with the standards and regulations of the European Community.

▶ Notes on Environmental Protection

At the end of its operating life, this product must not be disposed of with regular household waste but must be returned to a collection point for the recycling of electrical and electronic equipment.

The wheelie bin symbol on the product, user‘s manual and packaging indicates that. The materials can be reused in accordance with their markings.

Through reuse, recycling of raw materials, or other forms of recycling of old products, you are making an important contribution to the protection of our environment.



Your local administrative office can advise you of the responsible waste disposal point.

WEEE Registration: 973 349 88

Contact

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