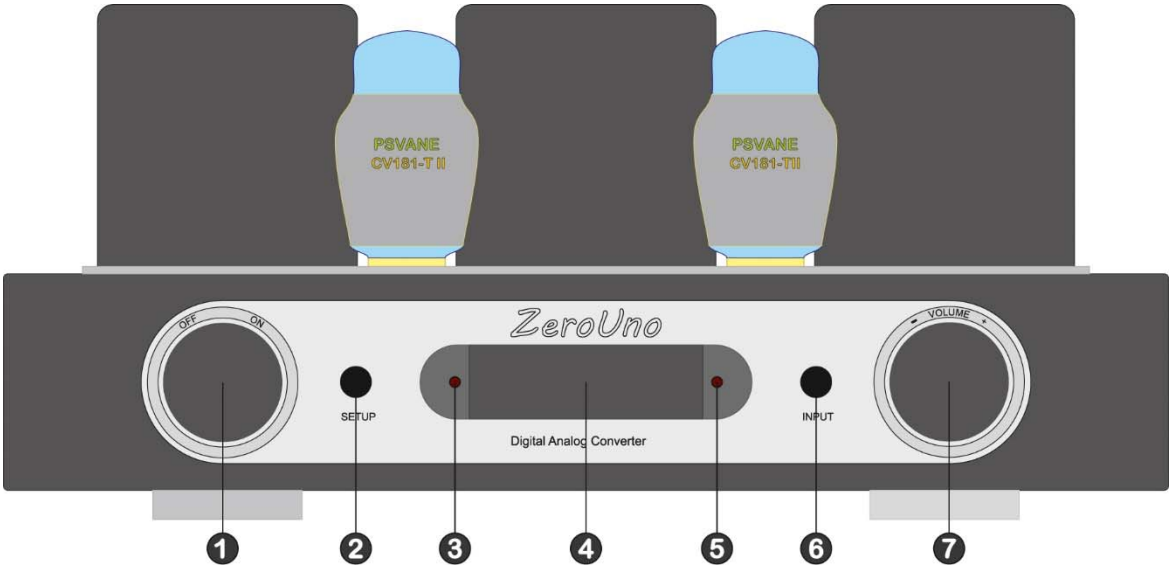
ZeroUno DAC

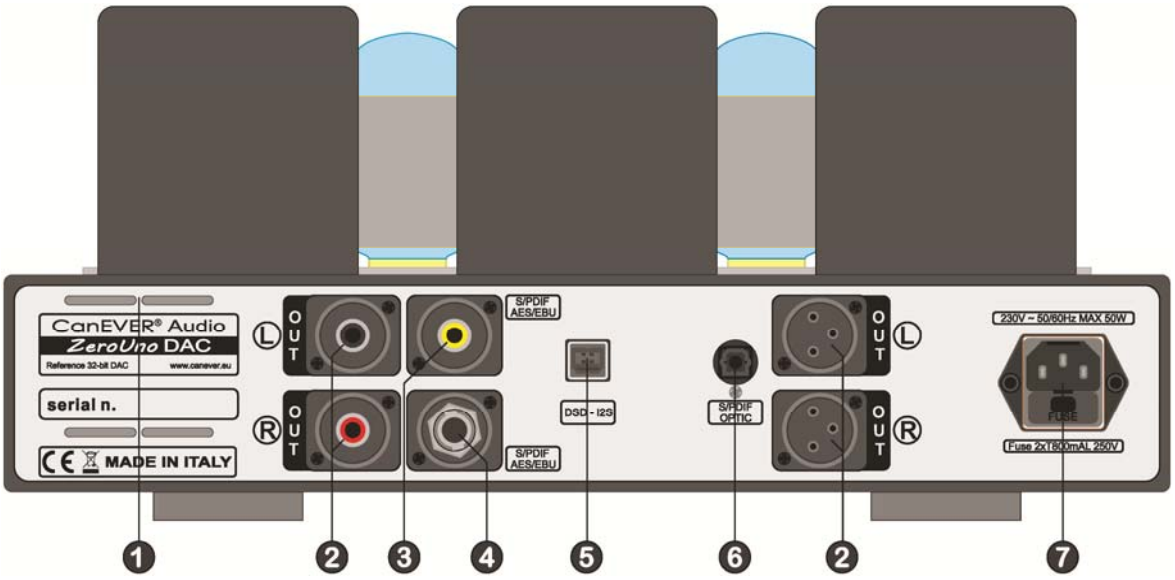
OPERATING INSTRUCTIONS

CanEVER AUDIO®

FRONT and REAR view

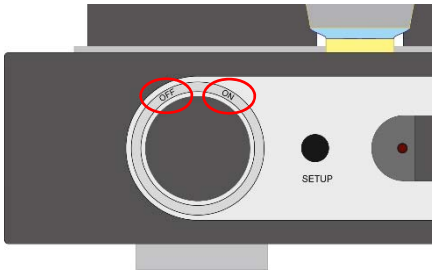


1. ON/OFF switch
2. SETUP / RESTORE button
3. Factory use
4. DISPLAY
5. INFRARED RECEIVER - do not cover
6. INPUT SELECTOR button
7. VOLUME / PARAMETER knob



1. VENT DOOR – do not cover
2. Left and Right output. RCA and unbalanced XLR
3. S/PDIF RCA input
4. S/PDIF BNC or (optional) AES/EBU input
5. USB input
6. S/PDIF OPTIC input
7. 230Vac IEC socket with fuses house.

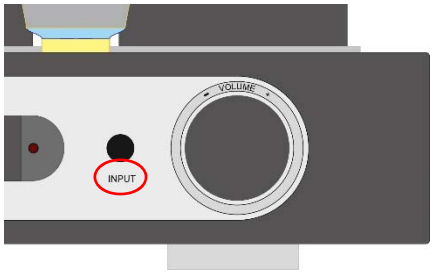
ON /OFF



The left knob is the **POWER SWITCH**.

OFF No power to any part of the *ZeroUno* DAC
ON *ZeroUno* DAC is powered on

INPUT BUTTON

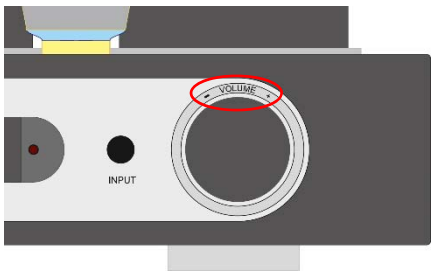


Press the **INPUT** button to switch from one input to another in the following order:

- RCA SPDIF
- BNC SPDIF
- OPTIC SPDIF
- USB (i^2S or DoP with auto detection)

The de-emphasis filter is automatically activated if the signal at the input was recorded with emphasis.

VOLUME



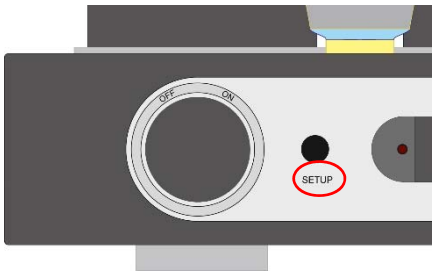
In PLAY mode turning the right knob clockwise or counter clockwise changes the **VOLUME** (up/down) in steps of 1 dB.
While rotating the volume knob the volume level is shown at the display.

DISPLAY

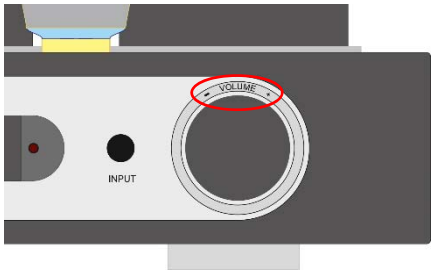
In PLAY mode the display reports the status of the *ZeroUno* DAC.

The first row at the display shows the lock on the coming signal.
The second row shows the volume, really the attenuation, in dB. Range is from -60dB to 0dB.
The third row shows the balance and the listening phase.
The fourth row shows the active INPUT.

SETUP



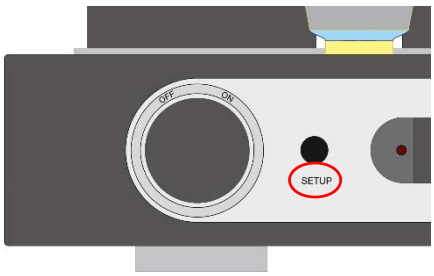
Press the **SETUP** for at least 2 seconds and LESS than 10 seconds to enter in SETUP Mode.



For each parameter its value is visible at the display.
Rotating the right knob (VOLUME) changes the parameter values.

If no button is pressed or the right knob is not turned within 10 seconds, the *ZeroUno* DAC automatically stores the values shown at the display and switches back to the PLAY/MUTE mode. All selected parameters are stored in a no volatile memory, so that the setup information is not lost after powering off the unit.

RESTORE



Display examples

To **RESTORE** the factory setup the SETUP button at the front panel of the *ZeroUno* DAC must hold for at least 10 seconds.
The Restore command takes action when the SETUP button is released.

The Restore regards only the selected INPUT. The parameters of the other INPUTs remain unchanged.

A countdown running on the 2nd row of the display shows when the *ZeroUno* DAC has engaged the RESTORE command.
When engaged the RESTORE command it is no possible to stop it.

SAMPLING RATE SETUP

Display example

SAMPLING RATE changes in BIG digits
Turning the right knob (VOLUME) choses if shows the changes of the sampling rate in big digits.
Value are "Show changes in BIG" and "Do not show BIG digit".

This option is useful when a DSD track is played in DoP mode and the player doesn't manage properly the silence between tracks.

After 10 seconds without interaction at the right knob the display turns back into normal operation and the parameter is stored.
The countdown on the first row helps to control the left time.

BALANCE SETUP

Display example

BALANCE
Turning the right knob (VOLUME) changes the BALANCE value.
Range from 5.0dB left to 5.0dB right in steps of 0.5dB.

After 10 seconds without interaction at the right knob the display turns back into normal operation and the parameter is stored.
The countdown on the first row helps to control the left time.

PHASE SETUP

Display example

LISTENING POLARITY (PHASE)
Turning the right knob (VOLUME) toggles the polarity listening.
Absolute polarity vs. inverted absolute polarity

After 10 seconds without interaction at the right knob the display turns back into normal operation and the parameter is stored.
The countdown on the first row helps to control the left time.

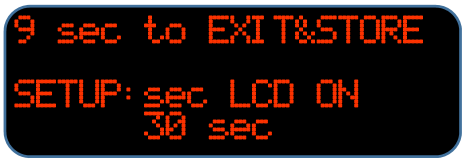
LCD BRIGHTNESS SETUP

Display example

LCD BRIGHTNESS
Turning the right knob (VOLUME) changes the display brightness.
Values are 50% / 60% / 70% / 90% / 100%

After 10 seconds without interaction at the right knob the display turns back into normal operation and the parameter is stored.
The countdown on the first row helps to control the left time.

LCD DIMMER SETUP



Display example

LCD DIMMER
Turning the right knob (VOLUME) changes the display ON time.
display dimmer timer 10s / 20s / 30s / 40s / 50s / always on

After 10 seconds without interaction at the right knob the display turns back into normal operation and the parameter is stored.
The countdown on the first row helps to control the left time.

OVERSAMPLING FILTER SETUP

Display example

OVERSAMPLING FILTER
Turning the right knob (VOLUME) makes the oversampling filter on / off

After 10 seconds without interaction at the right knob the display turns back into normal operation and the parameter is stored.
The countdown on the first row helps to control the left time.

JITTER FILTER SETUP

Display example

JITTER FILTER
Turning the right knob (VOLUME) makes the jitter filter on / off

After 10 seconds without interaction at the right knob the display turns back into normal operation and the parameter is stored.
The countdown on the first row helps to control the left time.

FIR FILTER SETUP

Display example

FIR FILTER - only for i^2S input signals
Turning the right knob (VOLUME) makes the FIR filter sharp / smooth

After 10 seconds without interaction at the right knob the display turns back into normal operation and the parameter is stored.
The countdown on the first row helps to control the left time.

IIR FILTER SETUP

Display example

IIR FILTER - only for DSD input signals
Turning the right knob (VOLUME) sets the IIR filter maximum / medium / minimum

After 10 seconds without interaction at the right knob the display turns back into normal operation and the parameter is stored.
The countdown on the first row helps to control the left time.

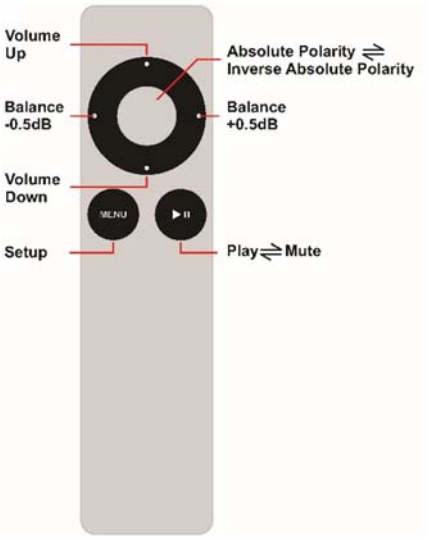
DAC RESOLUTION SETUP

Display example

DACs RESOLUTION
The ES9018S chip includes 8 differential Sigma Delta DACs.
The 8 DACs are grouped in 2 groups of 4 DACs each.
One group for the right output channel and one group for the left output channel.

Turning the right knob (VOLUME) sets the resolution and the working way of the 8 differential DACs.
Values are 6bits True Differential, 7bits True or Pseudo Differential, 8 bits True or Pseudo Differential, 9 bits Pseudo Differential.

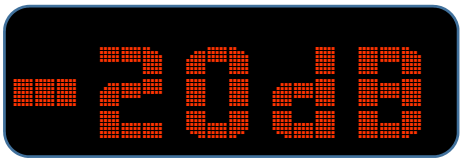
After 10 seconds without interaction at the right knob the display turns back into normal operation and the parameter is stored.
The countdown on the first row helps to control the left time.



INFRARED REMOTE CONTROLLER

Button	*Value*
Balance	*left to right in steps of 0.5dB each. Range is 0-5dB*
Volume	*Up and Down steps of 1.0dB. Range is -60dB to 0dB*
Phase	*Absolute Polarity < toggle > Inverse Absolute Polarity*
Mute	*Mute < toggle > Play*
Setup	*See SETUP KEY on the front panel description*

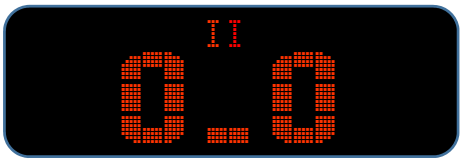
The remote controller (RC) coming with each *ZeroUno* DAC has been paired already with the DAC in the factory by selecting one of 256 possible pairing codes.
In case of interference with the RC´s of other electronics in the household the preselected RC code can be changed at any time.
To change the code, first move the RC close to the *ZeroUno* DAC (about 1 meter). Then press the SETUP and POLARITY buttons at the RC simultaneously for at least 5 seconds.
In a second step the RC must be paired with the DAC again.
To pair the RC, press the SETUP button at the front of the *ZeroUno* DAC for at least 2 seconds to enter in SETUP mode, release the button and finally press simultaneously the SETUP and the INPUT buttons.
If there is still interference with other RC´s in the household, please restart the above described process to generate another code.
The procedure is the same if you have a compatible RC.
To have an immediate feedback of the *ZeroUno* DAC status, every time a key is pressed at the RC, the display shows in big digits and for 5 seconds the value set.



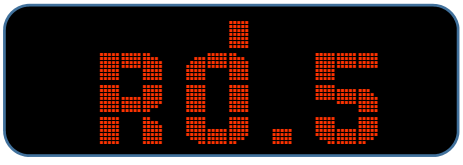
When the **VOLUME** keys are pressed, the attenuation changes with steps of 1.0dB. Range is -60dB to 0dB.
If the key is kept pressed the attenuation changes quickly.

If no key is pressed within 10 seconds the *ZeroUno* DAC automatically stores the values shown at the display and switches back to the PLAY/MUTE mode.

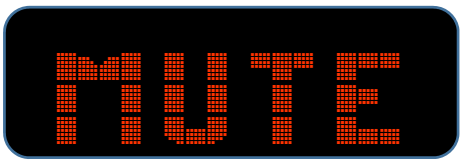
When the **BALANCE** keys are pressed, the balance changes in 0.5dB steps. Range is LEFT -5.0dB to RIGHT +5.0dB.
To help the user the 1st row of the display reports a bar showing the position of the balance value in the range -5.0dB to 5.0dB.



When the balance is set to 0.0dB the display shows clearly the condition.



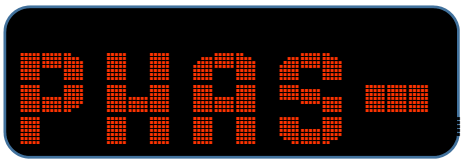
If no key is pressed within 10 seconds the *ZeroUno* DAC automatically stores the values shown at the display and switches back to the PLAY/MUTE mode.

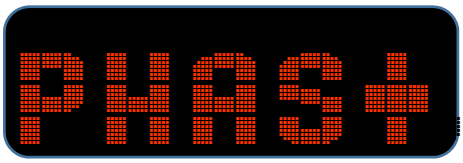


When the **MUTE** key is pressed, the *ZeroUno* DAC is muted and the display *never* goes back to the standard size view till the MUTE key is pressed again.

When the MUTE key is pressed again *ZeroUno* DAC is un-muted the display turns back into normal operation and the parameter is stored.

When a MUTE appears at the display in standard size means there is no signal locked at the selected INPUT and the *ZeroUno* DAC automatically forces to the MUTE condition. This function is totally independent from the MUTE imposed by the user.

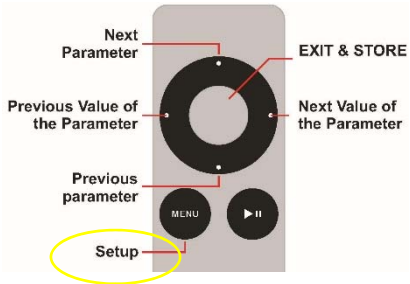




When the **LISTENING POLARITY** key is pressed the value is toggled between absolute polarity listening, showed PHASE+, and inverse absolute polarity listening, showed PHASE-.

As during the recording, the mastering and the production process the absolute polarity of the music program is changing many times, the final digital master file can be stored in inverted polarity. As some listeners are very sensitive to this fact, the *ZeroUno* DAC gives the customer the option to change the absolute polarity of the music file by pushing the round toggle switch at the remote control.

If no key is pressed within 10 seconds the *ZeroUno* DAC automatically stores the values shown at the display and switches back to the PLAY/MUTE mode.

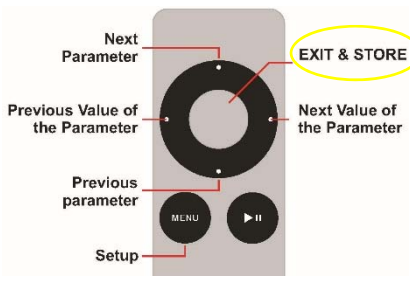


When the **MENU** key is pressed, the *ZeroUno* DAC enters in the SETUP procedure starting from the Jitter Filter parameter.

The feature of the keys changes totally from before. See aside.

The big digit indication is not activated and the sequence of parameters possible to set by the RC is:

Jitter Filter > FIR filter > IIR filter > DAC resolution > Sampling Rate > Balance > Phase > Brightness > Dimmer > Oversampling



If no key is pressed within 10 seconds the *ZeroUno* DAC automatically stores the values shown at the display and switches back to the PLAY/MUTE mode.

The countdown on the first row helps to control the left time.

At any time is possible to store immediately the parameter set by pressing the EXIT & STORE key.
In this case the countdown for the automatic store & exit is bypassed.

The *ZeroUno* DAC is completely configured by the factory for top performance.
To give the user maximum flexibility, the SETUP mode is implemented.

To RESTORE the factory values the SETUP button at the front panel of the *ZeroUno* DAC must be pressed for at least 10 seconds.
A countdown running on the 2 row of the display assists the user during this process.

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