

SPL Audio 1780 Active Analog 2-Way Crossover User Manual

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Professional Fidelity





Crossover – Quickstart


Active analog 2-way crossover

User manual and additional information:

spl.audio/crossover

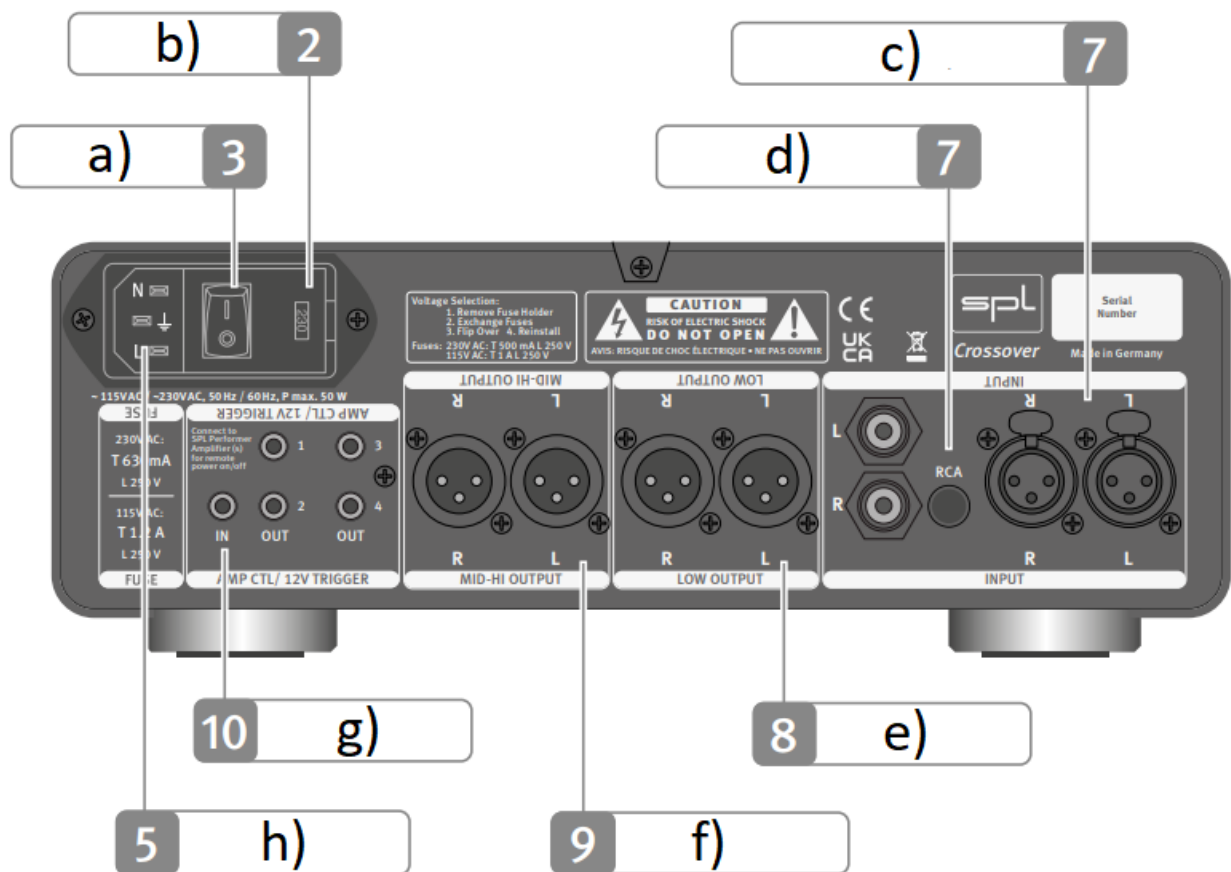


Start up

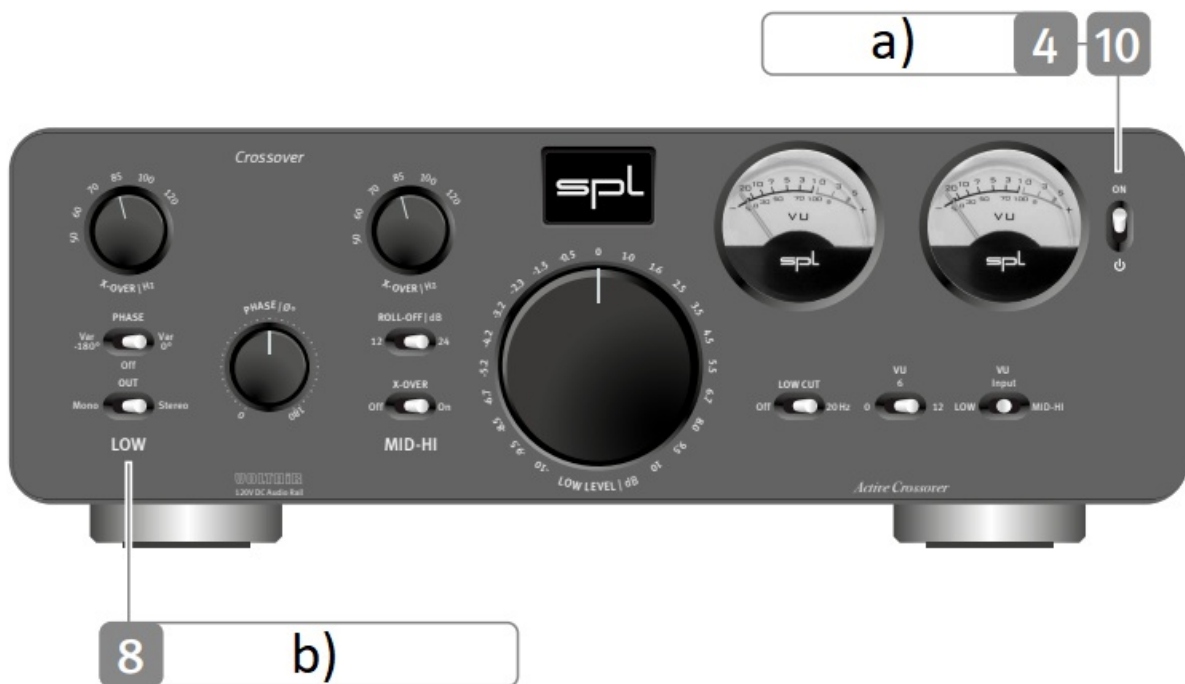
- [1] Read the security advices on page 8!
- [2] Make sure that the selected mains voltage of the Crossover is according to the mains voltage of your region.
- [3] Make sure that the mains switch on the rear of the Crossover is set to Off (Off = O / On = I).
- [4] The standby switch on the front panel has to be set to  (standby).
- [5] Connect the supplied power cord to the Crossover and an appropriate mains socket outlet.
If the supplied power cord does not match your mains socket outlet, please contact your dealer.
- [6] Turn off all devices you wish to connect to the Crossover.
- [7] With the RCA button on the rear you select the RCA input. If pressed, the RCA input is active, otherwise the XLR input is used. Connect the outputs of your preamplifier to the inputs of the Crossover. Please use appropriate audio cables (XLR, RCA).
Audio cables not included in the scope of delivery.
- [8] Connect the input of your subwoofer power amplifier(s) to the LOW Output of the Crossover.
You can connect a stereo, two mono or one mono power amplifier to the Crossover. In case of a mono subwoofer application, switch the LOW Mono/Stereo Switch to Mono – both LOW Outputs L and R feed the mono signal.
Audio cables not included in the scope of delivery.
- [9] Connect the input of your main power amplifier(s) to the MID-HI Output of the Crossover.
Audio cables not included in the scope of delivery.
- [10] If you own an SPL device supporting AMP CTL output(s) you can trigger standby and operation. Therefore connect the AMP CTL output of the SPL device with a mini jack cable to the AMP CTL input of the Crossover.
The Standby switch has to be set to ON in order to control the Crossover Standby via AMP CTL. Mini jack cable not included in the scope of delivery.

CAUTION: Do not use this setting to turn an SPL Performer s800 power amplifier on or off, when its serial number is lower than: Black 00273, Silver 00104, Red 00130

You may also use other 12V trigger controller. The Crossover is in operation mode when a switching voltage of 12 Volt DC is applied to the AMP/CTL input. As soon as the 12 Volt DC is removed, the Crossover switches back to standby mode. Use a mini jack cable where the tip is plus and the sleeve is minus.



- a) Mains Switch
- b) Mains Voltage
- c) XLR Audio Inputs
- d) RCA Input Selector
- e) LOW Output
- f) MID-HI Output
- g) AMP CTL Input
- h) Mains Connector



- a) Standby Switch
- b) LOW Mono/Stereo Switch



[11] If you own SPL Performer power amplifiers or other amplifiers using 12V trigger inputs you can connect the AMP CTL outputs of the Crossover with mini jack cables to the AMP CTL of the amps to trigger on and standby. Up to 4 amplifiers can be triggered together.
Mini jack cable not included in the scope of delivery.

Power up

[12] Turn down the volume of the connected devices.

[13] Switch on mains switch on the back of the Crossover (On = I).
The right VU Meter is dimly lit red.

Operation

[14] Switch the Crossover from standby into operation by setting the standby switch to ON.
Both VU Meters now lights up brightly.

Standby

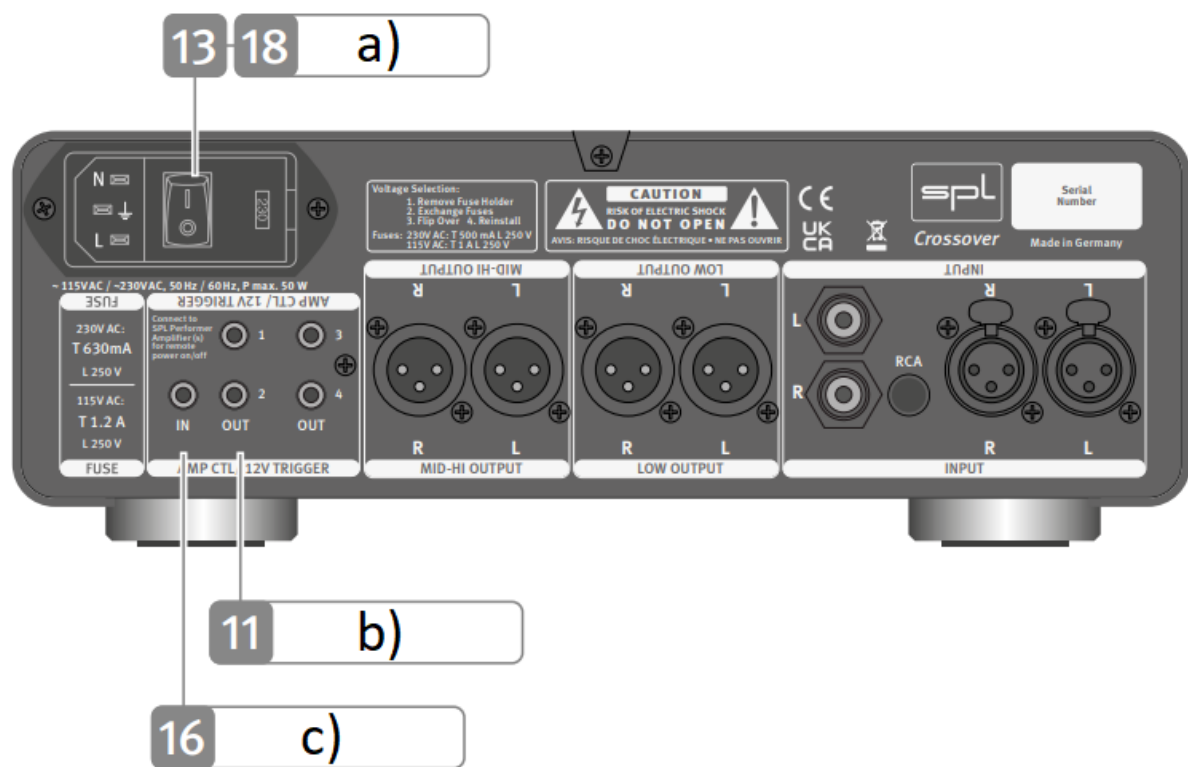
[15] Switch the Crossover into standby by setting the standby switch to  ( = Standby).

[16] If the Crossover is connected via AMP CTL input with an SPL device supporting AMP CTL output(s), the Crossover is triggered between standby and operation together with the SPL device.
The Standby Switch has to be set to ON in order to control the Crossover Standby via AMP CTL.

Power down

[17] Turn down the volume of the connected devices.

[18] Switch off mains switch on the rear of the Crossover (Off = O).
The VU Meters no longer lights up.



- a) Mains Switch
- b) AMP CTL Output
- c) AMP CTL Input



- a) VU Meter
- b) Standby Switch



LOW Section Setup

[19] Choose the LOW crossover frequency (Linkwitz Riley low pass filter) with the LOW X-OVER switch: 50, 60, 70, 85, 100 or 120Hz. The roll-off is 24 dB/octave.

[20] Use the PHASE switch and the PHASE control to shift the LOW signal phase from -180° to $+180^{\circ}$ for phase aligning subwoofer and main speaker positions.

[21] If you switch the LOW Mono/Stereo Switch to Mono – both LOW Outputs L and R feed a LOW mono signal.

[22] The output level of the subwoofer can be varied from -10dB to +10dB with the LOW Level control.

MID-HI Section Setup

[23] Choose a MID-HI crossover frequency (Linkwitz Riley high pass filter) with the MID-HI X-OVER switch: 50, 60, 70, 85, 100 or 120Hz.

[24] Select the roll-off with the ROLL-OFF Switch: 12 or 24 dB/octave.
Normally the crossover frequency is equal to the LOW setting.

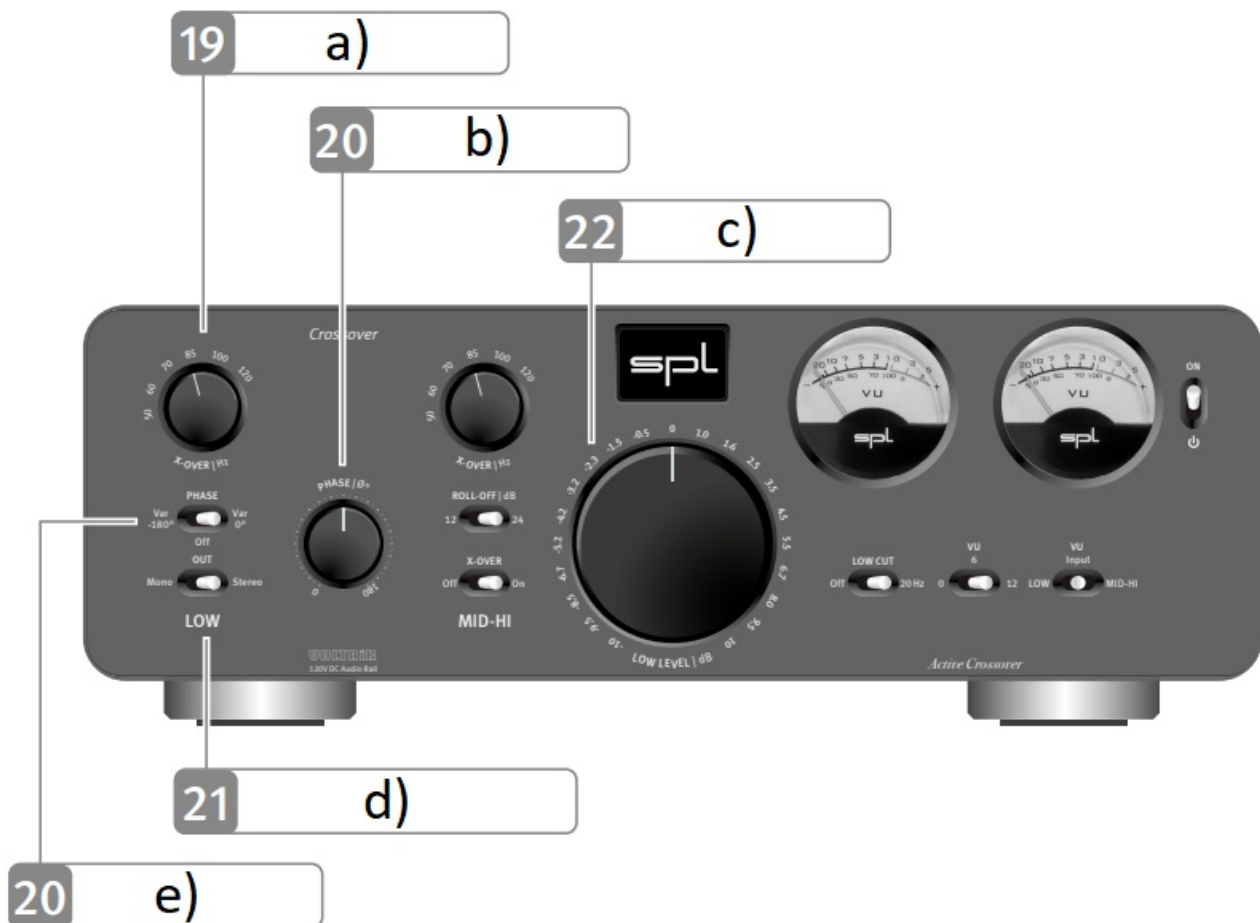
[25] The MID-HI crossover can be disabled with the MID-HI X-OVER On/Off switch in case the top speakers shall operate full range.

Basic Controls

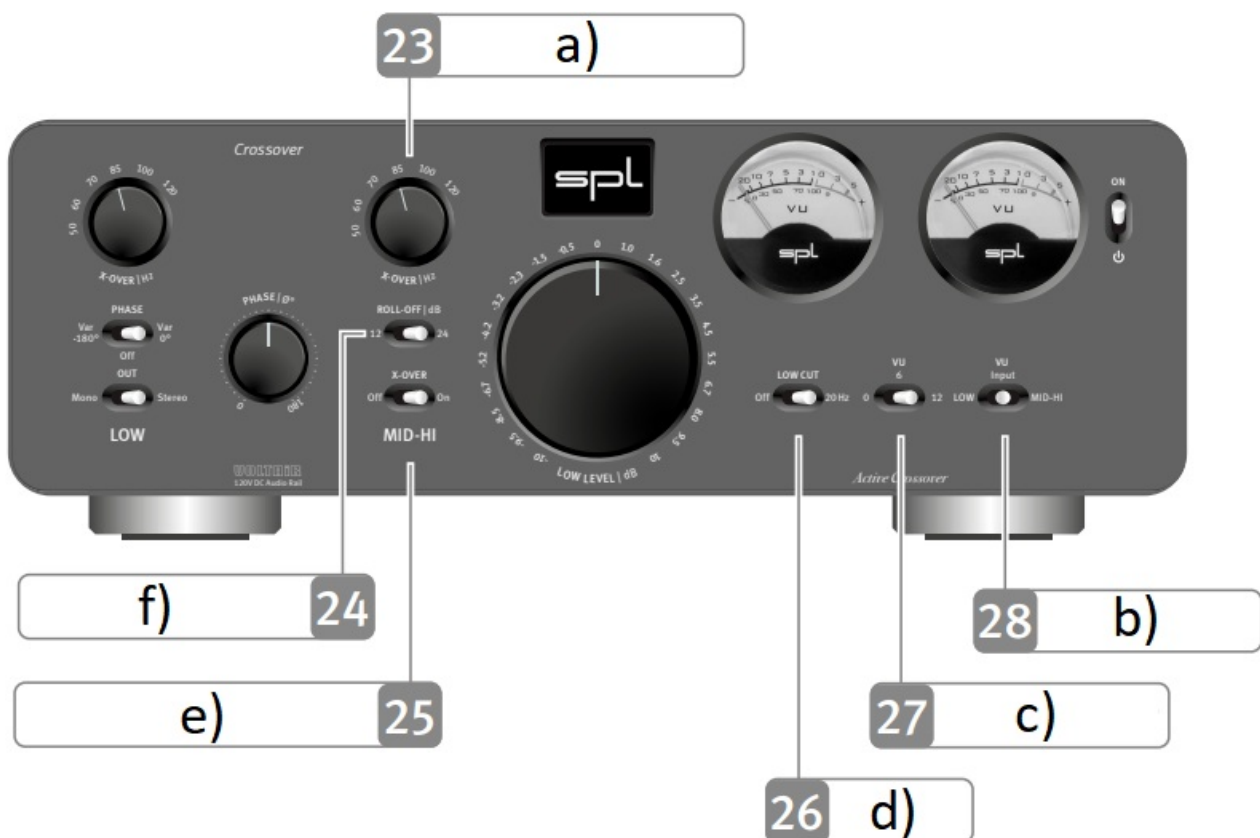
[26] The Crossover is equipped with a 20Hz low cut filter. If on (20Hz) the input signal is filtered below 20Hz by 12dB/octave for both frequency ranges – LOW and MID-HI.

[27] With the VU meter sensitivity switch you can lower the displayed VU levels by 6 or 12dB in case you are running hot signal levels.

[28] You can select the VU meter source: the LOW frequency range, the MID-HI frequency range or the input signal.



- a) LOW X-OVER Switch
- b) LOW PHASE Control
- c) LOW Level Control
- d) LOW Mono/Stereo Switch
- e) LOW PHASE Switch



- a) MID-HI X-OVER Switch
- b) VU Meter Input Switch
- c) VU Meter Sensitivity
- d) LOW CUT
- e) MID-HI X-OVER On/Off Switch
- f) MID-HI ROLL OFF Switch



Security Advises

Before starting up the device:

- Read thoroughly and follow the security advises.
- Read thoroughly and follow the Quickstart.
- Observe all warning instructions on the device.
- Please keep the user manual as well as the security advises in a safe place for future reference.



Warning

Always follow the security advises listed below to avoid serious injuries or even deadly accidents due to electric shocks, short circuit, fire or other dangers. The following are examples of such risks and do not represent an exhaustive list:

Power supply/Power cord

Do not place the power cord near heat sources such as heaters or radiators and do not excessively bend or otherwise damage the cord, do not place heavy objects on it, or place it in a position where anyone could walk on, trip over, or roll anything over it.

Only use the voltage indicated on the device.

Only use the supplied power cord/plug.

If you intend to use the device in an area other than in the one you purchased it, the included power cord may not be compatible. In this case please contact your dealer.

Be sure to connect the device to an appropriate mains socket outlet with a protective grounding connection.

Improper grounding can cause electrical shock.

Do not open

This device contains no user-serviceable parts. Do not open the device or attempt to disassemble the internal parts or modify them in any way. If it should appear to be malfunctioning, turn off the power immediately, unplug the power cord from the mains socket outlet and have it inspected by a qualified professional.

Water warning

Do not expose the device to rain, or use it near water or in damp or wet conditions, or place anything on it (such as vases, bottles or glasses) containing liquids which might spill into any openings. If any liquid such as water seeps into the device, turn off the power immediately and unplug the power cord from the mains socket outlet.

Then have the device inspected by a qualified professional.

Never insert or remove an electric plug with wet hands.

Fire warning

Do not put burning items, such as candles, on the unit. A burning item may fall over and cause a fire.

Lightning

Before thunderstorms or other severe weather, disconnect the device from the mains socket outlet; do not do this during a storm in order to avoid life threatening lightning strikes. Similarly, disconnect all the power connections of

other devices, antenna and phone/network cables which may be interconnected so that no damage results from such secondary connections.

If you notice any abnormality

When one of the following problems occur, immediately turn off the power switch and disconnect the electric plug from the mains socket outlet. Then have the device inspected by a qualified professional.

- The power cord or plug gets frayed or damaged.
- The device emits unusual smells or smoke.
- An object has fallen into the unit.
- There is a sudden loss of sound during the use of the the device.



Caution

Always follow the basic precautions listed below to avoid the possibility of physical injury to you or others, or damage to the device or other property. These precautions include, but are not limited to, the following:

Power supply/Power cord

When removing the electric plug from the device or an mains socket outlet, always pull on the plug itself and not the cord. Pulling the cord may damage it.

Unplug the device from the mains socket outlet when the device is not used for a while.

XLR output connector

Touching the open pins of the XLR output connector may result in an uncomfortable feeling.

Location

Do not place the device in an unstable position where it might accidentally fall over.

Do not block the vents. This device has ventilation holes to prevent the internal temperature from rising too high. In particular, do not place the device on its side or upside down. Inadequate ventilation can result in overheating, possibly causing damage to the device or even fire.

Do not place the device in a location where it may come into contact with corrosive gases or salty air. This may result in malfunction.

Before moving the device, remove all connected cables.

When setting up the device, make sure that the mains socket outlet you are using is easily accessible. If some trouble or malfunction occurs, immediately turn off the power switch and disconnect the plug from the mains socket outlet. Even when the power switch is turned off, electricity is still flowing to the product at a minimum rate. When you are not using the device for a long time, make sure to unplug the power cord from the wall mains socket outlet.

Connections

Before connecting the device to other devices, power down all devices. Before power on or off the devices, set all volume levels to minimum.

Only use appropriate cables to connect the device with other devices. Make sure that the cables you use are intact and comply with the electrical specifications of the connection. Other connections can lead to health risks and damage the equipment.

Handling

Operate the controls and switches only as described in the manual. Incorrect adjustments outside safe parameters can lead to damage. Never use excessive force on the switches or controls.

Do not insert your fingers or hands in any gaps or openings of the device.

Avoid inserting or dropping foreign objects (paper, plastic, metal, etc.) into any gaps or openings of the device. If this happens, power down immediately and unplug the power cord from the mains socket outlet.

Then have the device inspected by a qualified professional.

Do not expose the device to excessive dust or vibrations or extreme cold or heat (such as direct sunlight, near a

heater or in a car during the day) to prevent the possibility of causing damage to the housing, the internal components or unstable operation.

If the ambient temperature of the device suddenly changes, condensation can occur (if for example the device is relocated or is affected by a heater or air conditioning).

Using the device while condensation is present may result in malfunction. Do not power on the device for a few hours until the condensation is gone. Only then it is safe to power on.

Cleaning

Disconnect the device from your mains socket outlet before cleaning.

Do not use any solvents, as these can damage the chassis finish. Use a dry cloth, if necessary, with an acid-free cleaning oil.

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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.

Notes on Environmental Protection



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

The wheeled bin symbol on the product, user manual and packaging indicates that.

For proper treatment, recovery and recycling of old products, please take them to applicable collection points in accordance with your national legislation and the Directives 2012/19/EU.

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.

This directive only applies to countries inside the EU.




If you wish to discard devices outside the EU, please contact your local authorities or dealer and ask for the correct method of disposal.

WEEE-Reg-No.: 973 349 88

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Documents / Resources

  	<p>SPL Audio 1780 Active Analog 2-Way Crossover [pdf] User Manual</p> <p>1780 Active Analog 2-Way Crossover, 1780, Active Analog 2-Way Crossover, 2-Way Crossover, Crossover</p>
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References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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