

DAVID X	• USER • MANUAL		S W I S S	M A D E +
COMBO AMP FOR ACOUSTIC INSTRUMENTS				
	SCHERTLER			
V 1	WWW.SCHERTLER.COM			

INTRODUCTION

Thank you for choosing the **DAVID X** amplifier. DAVID X represents the state of the art in Swiss amplifier design, reflecting all the needs of the user. Offering a significantly improved power amp and speaker section, together with a crossover filter network, limiter and gain, this amp provides 120 W (112 dB SPL) of bi-amplified analog power. DAVID X is equipped with a 1" dome tweeter and 6" woofer. It has been engineered with an optimized 2-way bass reflex system.

DAVID X is ideal for those seeking no-compromise acoustic instrument amplification. An effective system for practice and home studio use, DAVID X's size also makes it the most portable and flexible SCHERTLER amplifier model. The three inputs can accept two instruments, or an instrument and a vocal microphone, plus a stereo playback device.

SCHERTLER amps feature a sophisticated Class-A preamp with no integrated circuits and No Negative Feedback (NNFB), resulting in unparalleled dynamics and fast transient behavior.

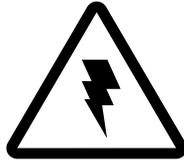
To make the most of your DAVID X amplifier and to ensure trouble-free operation, please **read this manual carefully** before using the amp for the first time. We also advise keeping the manual for future reference.

IMPORTANT SAFETY INFORMATION

SAFETY FIRST!

Safety is of major importance when operating any electrical equipment, so please note the following:

On a product, a lightning flash within a triangle indicates the presence of uninsulated "dangerous voltage" within the product enclosure. This may be of sufficient magnitude to cause risk of electric shock.



ELECTRICAL SAFETY

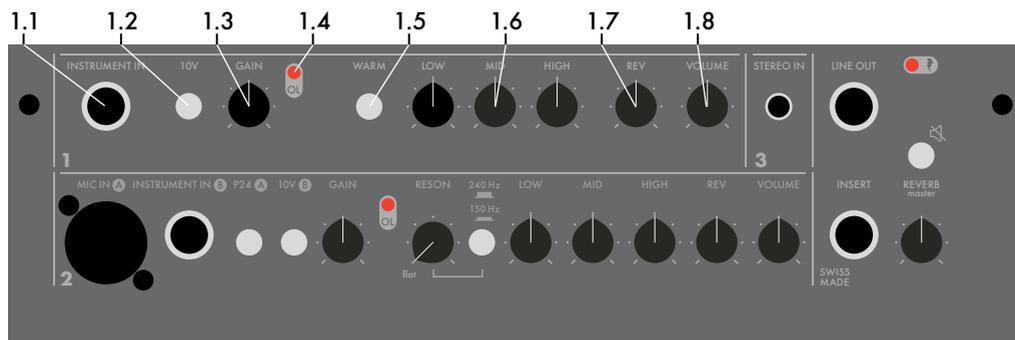
- ❑ Before connecting your amplifier to the mains, make sure that the mains voltage does not exceed the voltage specified on the device.
- ❑ Do not use your amplifier if its mains cable or plug are not in perfect condition. Replace these as necessary. The replacement cable must be the same as the original.
- ❑ Your amplifier should only be connected to a mains socket with a ground protection system.
- ❑ When using or installing your amplifier, make sure that the mains socket and the amplifier's mains cable and plug are easily accessible.
- ❑ Do not, under any circumstances, 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 and third prong are provided for your safety. If the supplied plug does not fit your mains socket, consult an electrician for replacement of the obsolete socket.
- ❑ Do not expose your amplifier to rain or any other water (even in small amounts). Do not use the amplifier near water.
- ❑ Avoid spilling drinks or any other liquids on the amplifier.
- ❑ Do not operate your amplifier in excessively humid conditions. Avoid excessive heat from sunshine, fire or similar. If the amp is being used in a dusty environment, make sure it is adequately protected.
- ❑ Avoid using or installing your amplifier near any heat sources such as radiators, heat registers, stoves, or other heat-producing apparatus. Do not put any sources of open flame (e.g. candles or pyrotechnics) on or near the amplifier.
- ❑ Do not cover your amplifier during use, or obstruct the ventilation flow in any way.
- ❑ Always leave sufficient clearance between the heat sink and any other surface.
- ❑ Unplug your amplifier during lightning storms, or if it is not going to be used for a while. (Remove the plug from the mains socket to completely disconnect the amplifier.)
- ❑ Your amplifier does not contain any "user serviceable" parts. Servicing and/or repairs should only be carried out by qualified personnel. See MAINTENANCE AND REPAIR.

OPERATIONAL SAFETY

- ❑ During live performances or installation, make sure that your amplifier's mains cable cannot be walked on, tripped over or "pinched" – particularly at sockets, around waste bins etc.
- ❑ To avoid interference, do not use or install your amplifier near power transformers, TV sets, RF transmitters, electric motors, or any other sources of electrical energy.
- ❑ To avoid potential accidents, only use attachments, accessories and other equipment such as carts, stands, tripods, brackets or cases that are specified or recommended by the manufacturer, or sold with your amplifier.
- ❑ Loud volume levels can cause irreparable damage to both the device and your hearing, so avoid the following while using your amplifier:
 - acoustic feedback (never point microphones directly at a loudspeaker)
 - high levels of distortion
 - impulse noises (loud "pops") that can occur when a device is switched on/off, connected to or disconnected from a system.

MAINTENANCE AND REPAIR

- ❑ Your amplifier can be carefully cleaned, as necessary, using a dry cloth. Do not use water.
- ❑ When cleaning, do not use any solvents (such as acetone or alcohol). These could damage the amplifier's finish and its labeling.
- ❑ Visually check your amplifier on a regular basis for any signs of wear and tear or damage, but do not attempt any kind of servicing or repair.
- ❑ If your amplifier malfunctions, or is damaged, e.g. if liquid has been spilled or objects have fallen inside, the amp has been exposed to rain or moisture, does not operate normally, or has been dropped, please call your nearest SCHERTLER technical assistance center. (For more information, you can contact us at the address on the last page of this manual.)



1.1. INSTRUMENT IN: An unbalanced input for the connection of 1/4" jacks, with optimal sensitivity for high level signals. The electronics will adapt to any situation - no special action is required.

1.2. 10V: This supplies the jack connector with 10 VDC for powering electret microphones.

1.3. GAIN: This variable gain preamplifier adjusts the sensitivity level to ensure the best possible processing of the signal through the channel. It is important that this input level is set and optimized in the best way to achieve the cleanest sound possible.

1.4. OVERLOAD: This LED (when lit) indicates that the level of the input signal is too high and it might therefore introduce distortion.

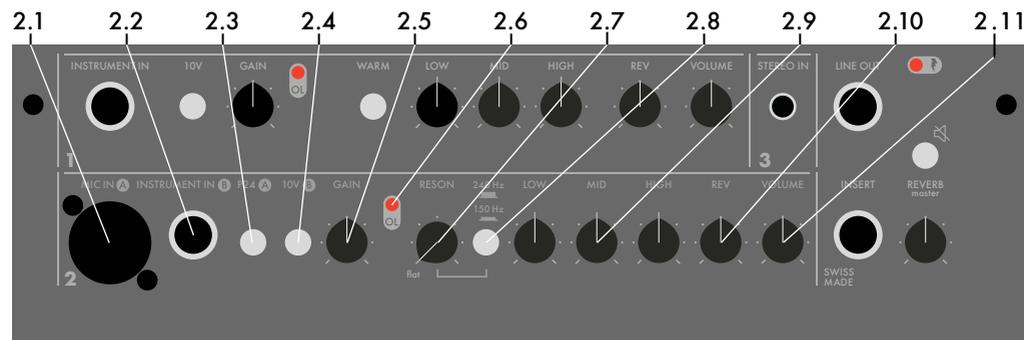
Practical tip: When using an amplified speaker, distorted input signals should be avoided at all cost in order to prevent potential damage to the speaker. While playing your instrument, carefully set the preamp/gain level by turning up the GAIN control until the OVERLOAD LED begins to blink. At this point, turn the gain back down slightly. Now set the MASTER Volume between 30% and 60%. With the gain and master levels appropriately set, you can now set the channel volume as you please.

1.5. WARM: When active, this low-pass filter dampens higher frequencies to produce a warmer sound when using bridge-mounted pickups such as the SCHERTLER STAT Series for violin, cello and double bass.

1.6. HIGH, MID, LOW (EQ): These controls are for high, mid and low frequency regulation. Offering cut and boost of ± 15 dB, they allow a wide range of tonal variations to be explored. When the controls are positioned centrally there is no cut or boost of the selected frequency band.

1.7. REVERB: This rotary control sets the level of the digital reverb on the channel.

1.8. VOLUME: This rotary control regulates the channel volume.



2.1. MIC INPUT (XLR): This input is electronically balanced for XLR-type connections. The channel is designed for any kind of microphone source e.g. dynamic and condenser mics.

2.2. INSTRUMENT IN: An unbalanced input for the connection of 1/4" jacks, with optimal sensitivity for high level signals. The electronics will adapt to any situation - no special action is required.

2.3. P24: Phantom power supplies the XLR connector with 24 VDC for powering condenser microphones. Most condenser (and dynamic) mics, and some preamps, can be safely phantom powered. In certain cases however, phantom power can cause damage. This tends to happen with unbalanced microphones, preamps, or stompboxes that have been modified for balanced XLR use. If in doubt, please contact the manufacturer to check the compatibility of your audio device before using the amplifier.

2.4. 10V: This supplies the jack connector with 10 VDC for powering electret microphones.

2.5. GAIN: This variable gain preamplifier adjusts the sensitivity level to ensure the best possible processing of the mic/instrument signal through the channel. It is important that this input level is set and optimized in the best way to achieve the cleanest sound possible. (See "Practical tip", 1.4.)

2.6. OVERLOAD: This LED (when lit) indicates that the level of the input signal is too high and it might therefore introduce distortion. (See "Practical tip", 1.4.)

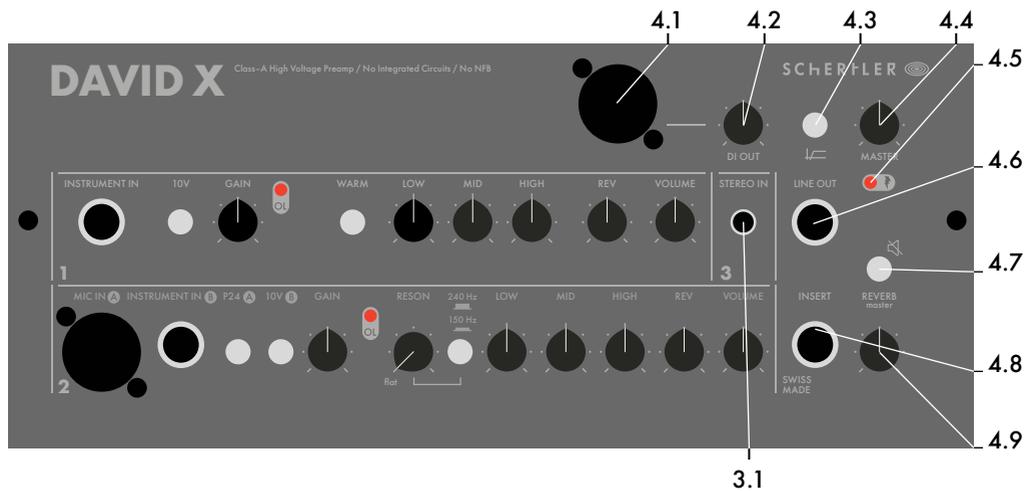
2.7. RESON: The RESONANCE (notch) filter cuts the frequency of 150 Hz/240 Hz, to reduce low-frequency feedback. Left: no attenuation (flat), Right: maximum attenuation.

2.8. RESON button: Use the RESON button to select the resonant frequency of the instrument (240 Hz/150 Hz).

2.9. HIGH, MID, LOW (EQ): These controls are for high, mid and low frequency regulation. Offering cut and boost of ± 15 dB, they allow a wide range of tonal variations to be explored. When the controls are positioned centrally there is no cut or boost of the selected frequency band.

2.10. REVERB: This rotary control sets the level of the digital reverb on the channel.

2.11. VOLUME: This rotary control regulates the channel volume.



3.1. STEREO IN: 1/8" mini jack stereo input for PC, MP3 and other electronic devices. Volume depends on the MASTER volume regulation.

4.1. DI OUT: A general XLR balanced output for connecting to external systems. The output volume does not depend on the regulation of the MASTER control, but is affected by changes in individual channel volume.

4.2. DI OUT VOL: This rotary control sets the output level on the DI OUT.

4.3. LOW CUT: When active, this filter cuts all frequencies below 120 Hz - ideal if you play an instrument that generates aggressive low frequencies. It enables you to connect a subwoofer, and prevent unwanted vibration and possible damage to your DAVID X.

4.4. MASTER: Controls the overall system volume.

4.5. POWER LED: Indicates when the amplifier is switched ON.

4.6. LINE OUT: This unbalanced jack socket enables connection to external systems. The output volume depends on the regulation of the MASTER control.

4.7. MUTE: This cuts the audio on the Master.

4.8. INSERT: This stereo jack socket enables the connection of an external device (compressor, equalizer, etc.) in series to all the outputs.

4.9. REVERB Master: This control regulates the general level of the digital reverb, common to all channels. The amount of effect can be individually regulated for each single channel via the dedicated controls.



5.1. POWER ON/OFF: System ON/OFF switch.

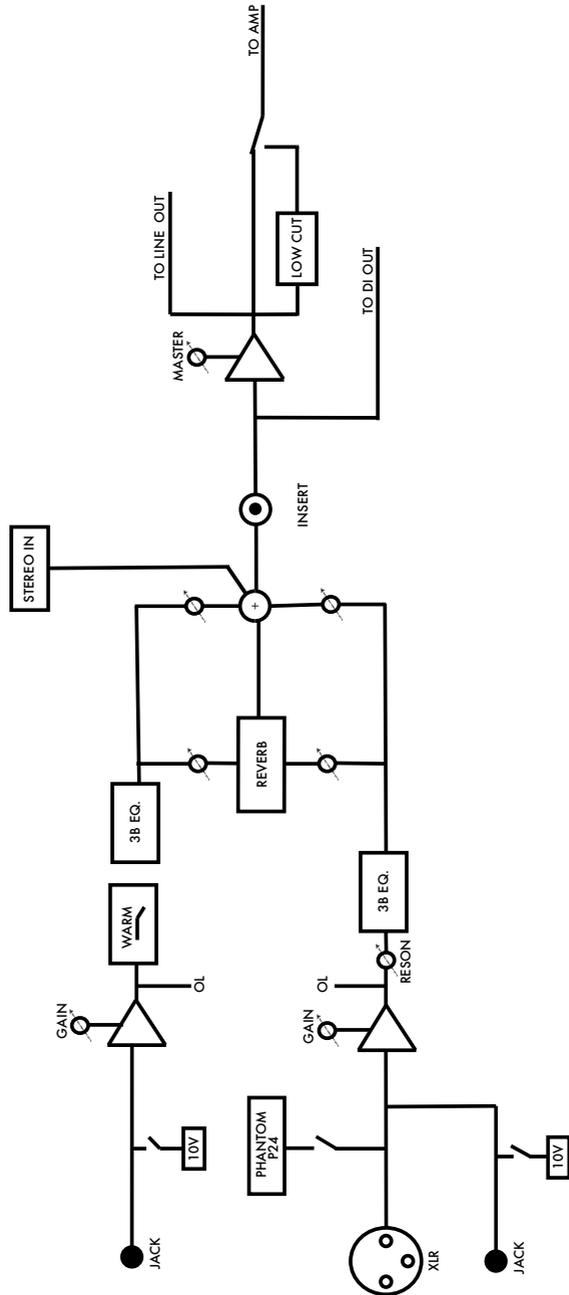
5.2. GROUND LIFT: This switch connects and disconnects the ground.

5.3. MAINS POWER CONNECTION:

Connection to mains		Fuse carrier
220 - 230 V~	50 Hz / 60 Hz	T 1.6 A L 250 V
240 V~	50 Hz	T 1.6 A L 250 V
120 V~	60 Hz	T 3.15 A L 250 V
100 V~	50 Hz / 60 Hz	T 3.15 A L 250 V

PLEASE ENSURE THAT THE CORRECT VOLTAGE IS OBSERVED AND THE ORIGINAL CONNECTION CABLE IS USED

SIGNAL FLOW



TECHNICAL INFORMATION

Weight	11 kg
Dimensions (LxDxH)	29.5 x 25.5 x 35.5 cm
Frequency Response (@ +/-3 dB)	45 Hz to 20 kHz
Sensitivity (1W/1m) @1 kHz	92 dB
Power	120 W pure analog power amp
SPL Max	112 dB
Speakers	1" dome tweeter, 6" woofer
Construction	12 mm birch BB laminated
System - Format	Two way, bi-amplified - Bass reflex

Mic In connector	XLR
Mic In sensitivity	-52 dB
Mic In impedance	4.7 k Ω
Instrument In connector	1/4" jack unbalanced
Instrument In sensitivity	-47 dB
Instrument In impedance	820 k Ω
Stereo In connector	1/8" jack stereo
Stereo In sensitivity	-10 dBu
Stereo In impedance	40 k Ω

Insert	On master
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Line Out connector	1/4" jack
Line Out level	0 dBu
Line Out impedance	200 Ω
DI Out connector	XLR
DI Out level	$-\infty$ to +6 dBu
DI Out impedance	180 Ω

Phantom Power (nominal)	24 VDC
Stat Power (10 VDC)	Yes
Effect	Spring-type digital reverb
Preamp	Class-A, no negative feedback, no integrated circuits

Stand mounting	Flange mount \varnothing 36 mm, h=102 mm
Available versions	Dark wood and anthracite

FAQ

Where can I buy amplifier bags/accessories?

Amp bags, along with other SCHERTLER product accessories, are available from the online web shop at www.schertler.com. You can buy the product itself and/or its accessories from the relevant product page.

Can I get a copy of this manual in other languages?

Digital versions of our manuals are available in English, Italian, German and French. These can be downloaded from the product pages of the SCHERTLER website: www.schertler.com

Can I bypass the internal power supply and power the amp via battery?

No, our amplifier electronics are designed for mains use only. It is not possible to modify the amp for "battery powering". You could however connect the amp to an external voltage compatible battery that can accommodate the amp's supplied power cable/plug.

Does the I/O INSERT allow you to put effects on all channels?

Yes, the INSERT connection works on the Master, so it affects all the channels.

Can I use DAVID X with a bass?

DAVID X's Class-A electronics and bootstrap technology inputs allow you to connect any kind of audio signal (including electric bass and double bass). However, David X's 6" speaker might not be at its best on low frequencies, so perhaps consider the JAM X - similar features, but with an 8" speaker. Please also bear in mind that instruments which generate aggressive low frequencies (such as bass guitars) will produce greater "energy" in the lower range that can be potentially damaging to internal speakers. If you are playing a bass through the David X, the LOW CUT filter on the master section will cut all frequencies below 120 Hz. This also enables you to connect a separate subwoofer preventing unwanted vibration and possible damage to your amp.

FAQ

Can I use DAVID X with a digital piano?

DAVID X's 6" woofer is not designed for very high sound pressure levels, but used at reasonable volume levels, the amp can basically be employed with any instrument and can also be used as a compact personal monitor. Send the signal to the PA via the DI OUT so that DAVID X also becomes a preamp, letting you control the sound you are sending out.

How do I make the connections to use a second speaker or amplifier?

The easiest way to connect an external speaker (or a second active amp) is via the LINE OUT or DI output.

What is the best way to connect a delay or other external effect to my DAVID X?

If you only have one instrument connected to your amp, you can use the master section INSERT. For this connection you will need a Y insert cable. Another way of connecting the external effect is in series: the effect must be in the chain just before the signal enters the amp (guitar → pedal → amp).

Will my condenser mic work with the DAVID X's 24 V phantom power?

DAVID X provides way more than the nominal 24 VDC, but, since it is not actually 48 VDC we cannot legally label it P48. However, most modern microphones will work just fine. For more technical information, please read the FAQ section on SCHERTLER website.

APPENDIX

WARRANTY

All SCHERTLER products are covered by a limited two-year factory warranty (from the date of purchase) in respect of manufacturer defects. Details can be obtained from your local dealer / representative.

SCHERTLER SA strongly believes in "common sense". Therefore, misuse of our products is not covered under rights obtained through our warranty policy, or through internationally recognized terms and conditions. For more information on warranty, please visit the SCHERTLER website.

PRODUCT DISPOSAL

This product must not be disposed of in general household waste. It should be taken to a disposal center for electrical / electronic waste. Please note any local or national regulations that may be applicable here.

TRADEMARKS

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ACOUSTIC · AUDIO · PRODUCTS	S W I S S		SCHERTLER		M A D E +	VIA BEROLDINGEN 18 6850 HENDRISCH SWITZERLAND T +41 (0) 91630 0710 F +41 (0) 91630 0711 INFO@SCHERTLER.SWISS WWW.SCHERTLER.COM
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