

TM

SCHERTLER[®]
ACOUSTIC FIDELITY

ARTHUR
Modular mixer
ART48 - ASSEMBLY

USER MANUAL

INTRODUCTION

Thank you for choosing the ARTHUR modular mixer. If you have bought a number of individual modules, this manual explains how to install and combine them to form your mixer. Please read the information carefully before starting to build the mixer. It's also advisable to retain this manual for future reference in case you wish to reconfigure the mixer at any time, or add new modules.

Some words from the electronic designer ...

I'm proud that you have chosen the ARTHUR modular mixer. Our flagship system enables you to configure and build a professional mixing tool that is specifically tailored to your audio requirements. Within minutes, virtually any number of Arthur modules can be combined in any order. This unparalleled flexibility gives you the freedom to customize your mixer to suit different live and studio applications.

At the heart of the Arthur mixer are some highly innovative electronics. Specially designed to produce the very best quality sound, Arthur's circuitry is completely free of negative feedback (NFB) from input to output - even the filter and summing amps, which, for many electronic designers is unimaginable. The result is an ultra-fast response and natural attack, something that is not achievable with NFB circuitry. All circuits are built using single, discrete Class-A electronic components and pure high-voltage DC amps (without a single capacitor in the signal path), offering 30 dB headroom and low noise, as well as unparalleled stability, warmth and transparency.

While Arthur doesn't offer all the features of a big studio console (that is not the intention), its sound nevertheless outperforms many established mixers. This, together with its flexibility, has made Arthur a firm favourite with a number of leading artists and engineers.

Our latest modules - Master X and Mic/Line X - take Arthur's flexibility a step further, offering additional outputs and optional transformers on the Master X and improved channel features on the Mic/Line X. These units are fully compatible with other Arthur modules and are designed to meet the analog needs of today's audio professional.

Whether you will be using your Arthur mixer for recording or live sound, for smaller performances or larger events, I really hope you enjoy working with it.

Stephan Schertler
CEO, Schertler SA

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

This information applies to all modules and power supplies that form your ARTHUR mixer:

- Before connecting your mixer to the mains, make sure that the mains voltage does not exceed the voltage specified on the mixer/power supply.
- Do not use your mixer if its power supply, cable or plug are not in perfect condition. Replace these as necessary, using the exact models/types specified. If any fixed cables need replacing, this should be done by a suitably qualified professional.
- Your mixer should only be connected to a mains socket with a ground protection system.
- When setting up or installing your mixer, make sure that the mains socket and the power supply'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 mixer to rain or any other water (even in small amounts). Do not use the mixer near water.
- Avoid spilling drinks or any other liquids on the mixer.
- Do not operate your mixer in excessively humid conditions. Avoid excessive heat from sunshine, fire or similar. If your mixer is being used in a dusty environment, make sure it is adequately protected.
- Avoid installing your mixer near any heat sources such as radiators, heat registers, stoves, or other heat-producing apparatus (including amplifiers).
- Do not put any sources of open flame (e.g. candles or pyrotechnics) on or near your mixer.
- Do not cover your mixer during use, or obstruct the ventilation flow in any way.
- Unplug your mixer 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 mixer.)
- Your mixer does not contain any “user serviceable” parts. Servicing and/or repairs should only be carried out by qualified personnel. See MAINTENANCE AND REPAIR (below).

IMPORTANT SAFETY INFORMATION

OPERATIONAL SAFETY

- During installation or live performances, make sure that your mixer's power supply cable cannot be walked on, tripped over or "pinched" – particularly at sockets, around waste bins etc. Also make sure that the power supply cable is not "stressed" at its point of connection to the mixer.
- To avoid interference, do not install your mixer 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 mixer.
- Loud volume levels can cause irreparable damage to hearing, so avoid the following while using your mixer:
 - 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 mixer can be carefully cleaned, as necessary, using a dry cloth. No water must be used.
- When cleaning, do not use any solvents (such as acetone or alcohol). These could damage the mixer's finish and its labeling.
- Visually check your mixer 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 mixer malfunctions, or has been damaged, e.g. if the power supply/cable or plug is damaged, liquid has been spilled or objects have fallen inside, the mixer has been exposed to rain or moisture, does not operate normally, or has been dropped, please call your nearest Schertler technical assistance centre. (For more information, contact us at the address on the last page of this manual.)

CONNECTING THE MODULES

You can connect all the various input and output modules in whatever order you like. It is, however, useful to first lay out all the modules to check your configuration before making any actual connections. In most cases, the mixer layout will involve having inputs on the left, following through to outputs on the right.

Connect the individual modules from left to right (Fig.1).

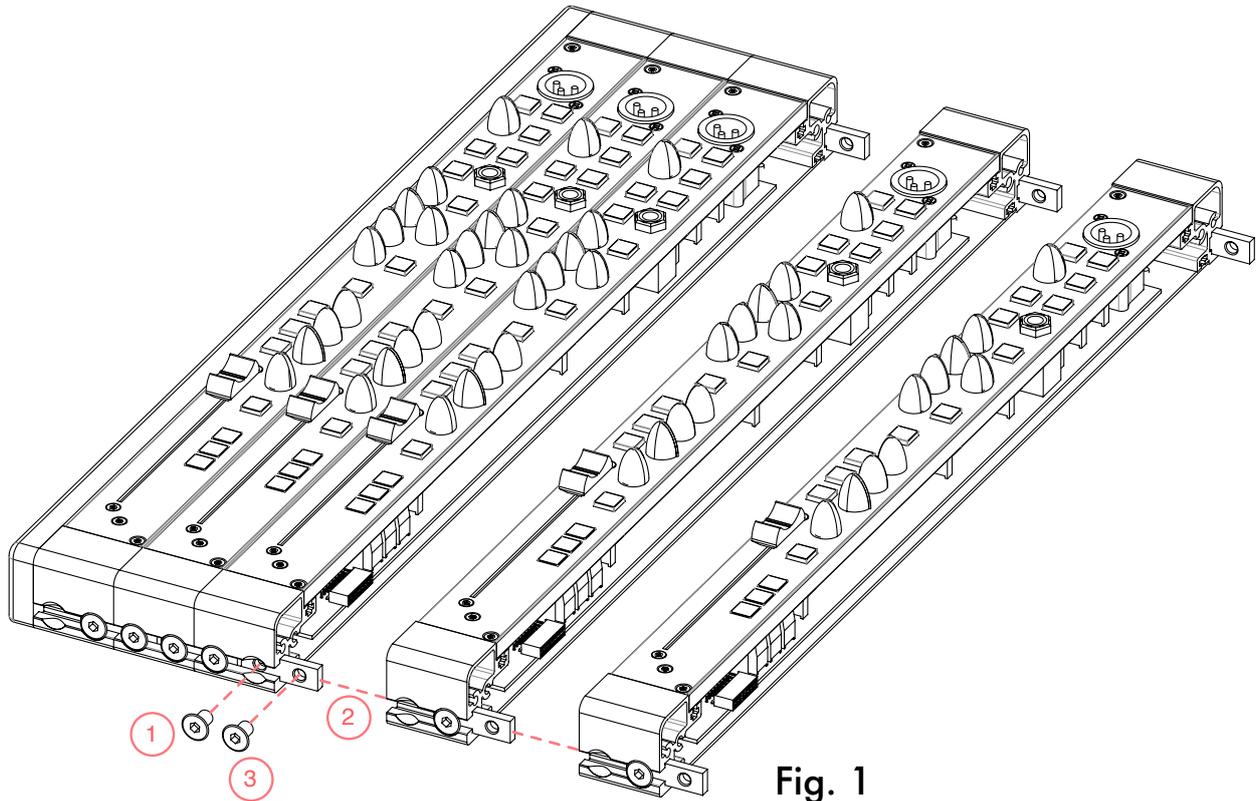


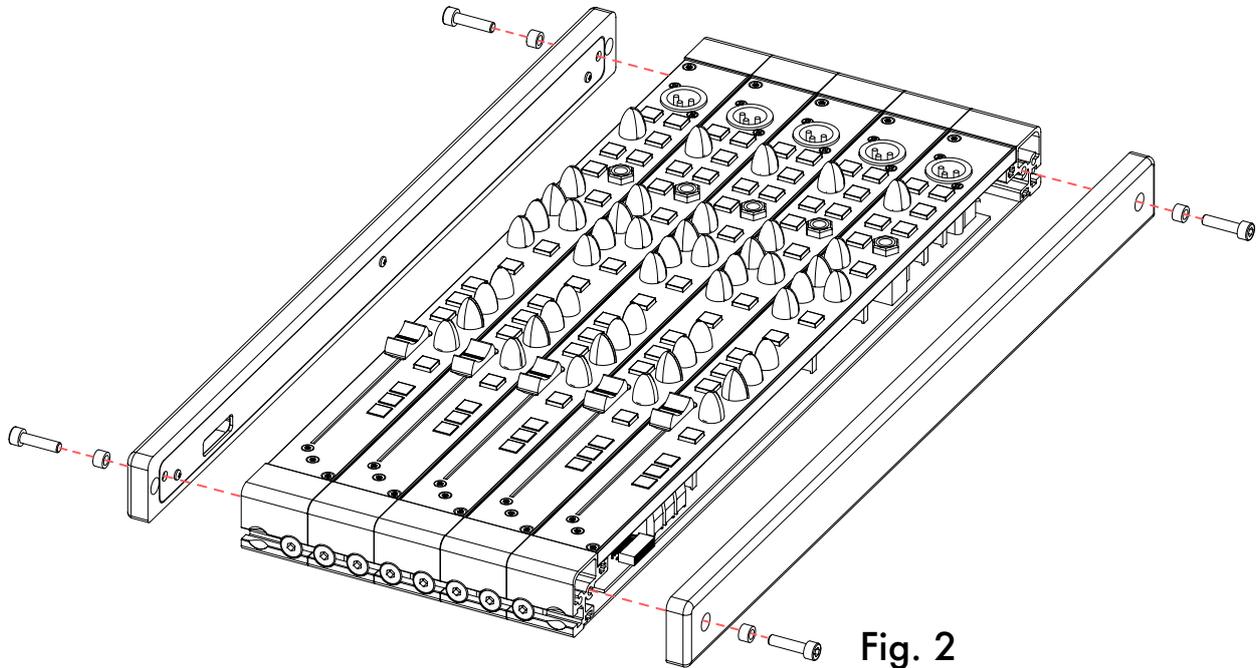
Fig. 1

- Start by fixing the supplied top and bottom connecting rods to your first unit. Loosen the screws (3) attached to each rod and insert the rod into the right side of the appropriate slot (2) on both the top and bottom of the module.
- Using the supplied hex key, fix the first screw in place on each rod (1).
- Take the next module and mount it to the right of the module in which you just inserted the connecting rod.
- Gently press both modules together so that all the connectors slot into one another without being squashed.
- Now tighten the second screw on the connecting rod so that both modules are firmly joined together.

Attach each remaining module in the same way. Take care not to damage the multipin connector on the module when doing this. (The two connecting rods belonging to the last module will be left over. Keep these in case any replacements are needed.)

CONNECTING THE MODULES

Add the side panels to complete your mixer (Fig.2).



Fix these panels using the supplied screws. (The self-cutting screws need some force in order to be turned. Make sure you have inserted the screws straight into the hole during the first few turns.)

Note: If you buy additional modules, it's easier to separate two existing modules in the mixer and insert the new one in between, rather than having to remove one of the side panels. However, if your new module needs to be added at the far left or right side of the mixer, as with the SPRING reverb for example, you will obviously have to remove the relevant panel in order to accommodate the new module. Side panels are available in wood, metal and other solutions offered by Schertler. See www.schertler.com for details.

Any new modules can be added by following the above steps.

POWER SUPPLIES

The ARTHUR modular mixer receives its electrical energy through an external power supply. Although you may have already purchased the necessary power supply together with your other units, here is a general overview of the different power supplies that are available:

ART48-PS12: Compact switching power supply for up to 12 units (max 1 amp)

ART48-PS25: Compact switching power supply for up to 25 units (max 2 amps)

ART48-PS36: High-end linear power supply for up to 36 units

ART48-PS48: High-end linear power supply for up to 50 units

ART48-PSPRO: High-end linear power supply catering for up to 35 units with 3 power outputs.

Ground lift

In most cases (whether in live situations or in a recording studio) it is usual to consider the mixing console as the central ground point in the entire audio system. This consideration is important in order to avoid ground loops between the various pieces of audio equipment. The ART48-MASTER X has a built-in Ground Lift switch to disconnect the mixer from the ground.

STARTING THE MIXING CONSOLE

Plug the power supply's connection cable into the L/R MASTER / MASTER X's DC IN connector. Arthur has no on/off switch: when your mixer is not in use, its power supply should be disconnected. Note: The linear power supplies can be switched on or off using the on/off switch on the power supply itself.

Before switching on the mixer, make sure that the master faders are down, (or better still, that the MASTER L/R on/off buttons are on their "off" position). This will avoid power-on "pops" from any loudspeakers that may have been left on by accident. In any case, a mixer should always be turned on before any of the subsequent devices in the audio chain.

Important: Once the mixer is powered up, the audio electronics' DC regulators need about 2 minutes to balance all the DC levels in the circuitry. You can start using the mixer after just 10 seconds, but the slightly unbalanced DC levels will reduce the dynamic and you might hear a "click" noise when pressing some of the buttons, or a slight "crackle" when operating the rotary controls! These effects will disappear after the 2 minutes.

At all times, and particularly before important recordings, the mixer should be warmed up and run for about half an hour before any serious work begins.

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 S.A. strongly believes in "common sense". Therefore, misuse of our products is not covered under rights obtained through our warranty policy, or through internationally recognised 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 centre for electrical / electronic waste. Please note any local or national regulations that may be applicable here.

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