

MIX 301 • User Guide

The MIX 301 is a three-input, one-output line level audio mixer. It accepts balanced or unbalanced input signals, and provides a balanced or unbalanced output. The MIX 301 accommodates input sources with various impedances. Three recessed input gain controls on the front panel enable adjustment of mix levels from -80 dB to +20 dB.

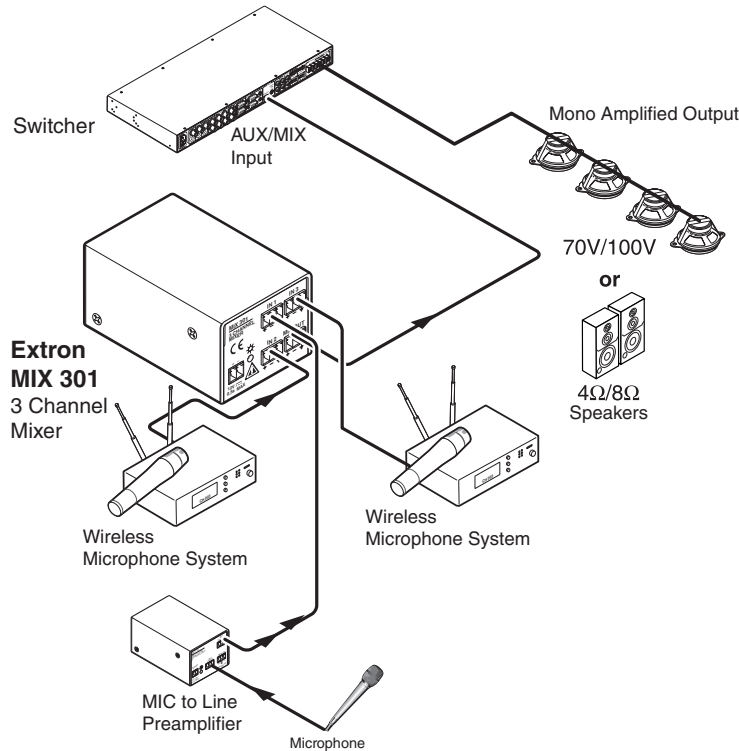


Figure 1. MIX 301 Application Diagram

Features

- **Inputs** — Captive screw connectors
- **Outputs** — Captive screw connectors
- **Balanced and unbalanced signal compatibility**
- **Gain control for each channel** — Wide adjustment range from -80 dB to +20 dB
- **Compact size** — Easy installation in a rack or in limited space
- **Rack-mountable** — 1U, one-eighth rack width metal enclosure
- External Extron Everlast™ power supply included

Mounting the MIX 301

The MIX 301 can be set on a table, mounted on a rack shelf, mounted on the back of the rack, mounted under a desk or table, or installed on a projector mount (go to the Extron [website](#) for mounting options).

UL Rack Mounting Guidelines

The following Underwriters Laboratories (UL) guidelines pertain to the safe installation of the MIX 301 in a rack.

1. **Elevated operating ambient temperature** — If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, install the MIX 301 in an environment compatible with the maximum ambient temperature ($T_{ma} = +122^{\circ}\text{F}$, $+50^{\circ}\text{C}$) specified by Extron.
2. **Reduced air flow** — Install the equipment in a rack so that the amount of air flow required for safe operation of the equipment is not compromised.

MIX 301 • User Guide (Continued)

3. **Mechanical loading** — Mount the equipment in the rack so that a hazardous condition is not achieved due to uneven mechanical loading.
4. **Circuit overloading** — Connect the equipment to the supply circuit and consider the effect that circuit overloading might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
5. **Reliable earthing (grounding)** — Maintain reliable grounding of rack-mounted equipment. Pay particular attention to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

Rear Panel Features and Cabling

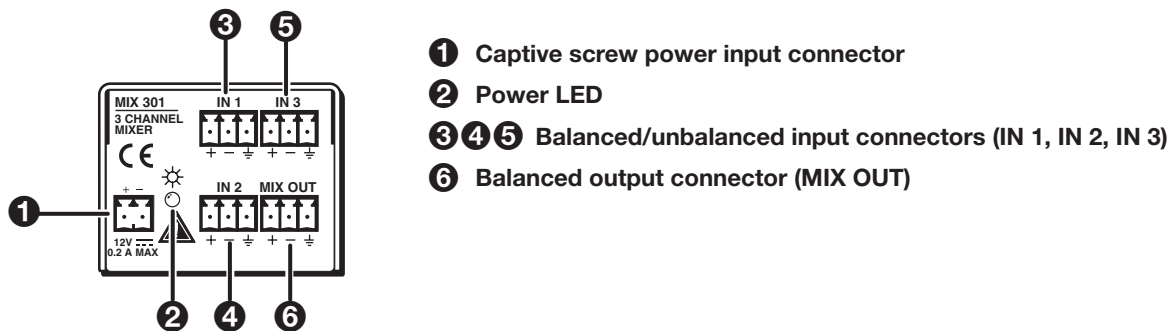


Figure 2. MIX 301 Rear Panel

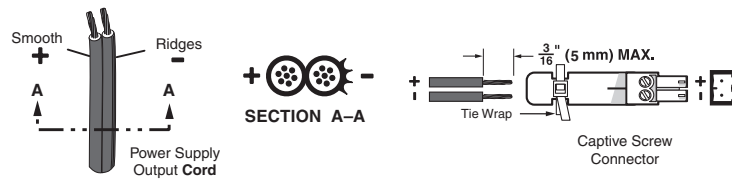
ATTENTION:

AVERTISSEMENT :

- Always use a power supply provided by or specified by Extron. Use of an unauthorized power supply voids all regulatory compliance certification and may cause damage to the supply and the end product.
- Utilisez toujours une source d'alimentation fournie ou recommandée par Extron. L'utilisation d'une source d'alimentation non autorisée annule toute conformité réglementaire et peut endommager la source d'alimentation ainsi que le produit final.
- When you are connecting the power supply, voltage polarity is extremely important. Applying power with incorrect voltage polarity could damage the power supply and the interface. Identify the power cord negative lead by the ridges on the side of the cord.
- Lorsque vous connectez la source d'alimentation, la polarité de la tension est extrêmement importante. Une alimentation avec une polarité de tension incorrecte peut endommager la source d'alimentation ainsi que l'interface. Il est essentiel d'identifier une connexion négative du cordon d'alimentation au niveau des stries sur les parties latérales du cordon.
- The two power cord wires must be kept separate while the power supply is plugged in. Remove the power before wiring.
- Les deux cordons d'alimentation doivent être maintenus à l'écart tant que la source d'alimentation est branchée. Coupez l'alimentation avant de faire les raccordements.
- The length of the exposed wires in the stripping process is **important**. The ideal length is 3/16 inches (5 mm).
- La longueur des câbles exposés est **importante** lorsque l'on entreprend de les dénuder. La longueur idéale est de 5 mm (3/16 inches).
- Do not tin the wire leads before installing into the connector. Tinned wires are not as secure in the connector and could be pulled out. They may also break after being bent several times.
- Ne pas étamer les conducteurs avant de les insérer dans le connecteur. Les câbles étamés ne sont pas aussi bien fixés dans le connecteur et pourraient être tirés. Ils peuvent aussi se casser après avoir été pliés plusieurs fois.
- To verify the polarity before connection, plug in the power supply with no load and check the output with a voltmeter.
- Pour vérifier la polarité avant la connexion, brancher l'alimentation hors charge et mesurer sa sortie avec un voltmètre.

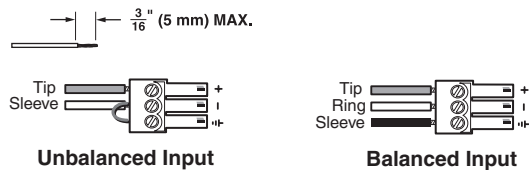
NOTE: Your MIX 301 may have shipped with a blue captive screw connector. This blue connector can be plugged into either a blue or an orange power receptacle. The blue connector does not have the extended tail or the included tie-wrap.

- 1 **Captive screw power input connector** (see [figure 2](#) on the previous page) — Connect the included 12 VDC external power supply into the 2-pole 3.5 mm captive screw connector. Be careful to observe the correct polarity.

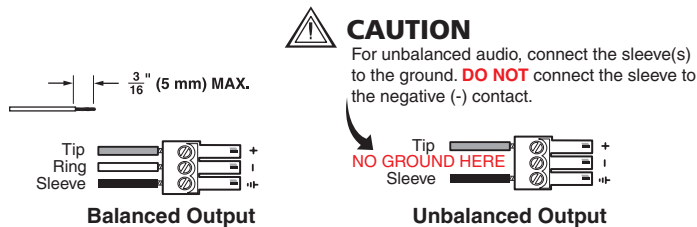


- 2 **Power LED** — Lights green to indicate that the MIX 301 has power.

- 3 4 5 **Balanced/unbalanced input connectors (IN 1, IN 2, IN 3)** — The balanced/unbalanced mono audio input is wired to a 3-pole, 3.5 mm captive screw connector. Wire the connector as shown below.

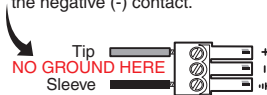


- 6 **Balanced output connector (MIX OUT)** — The balanced mono output is wired to a 3-pole, 3.5 mm captive screw connector. Wire the connector as shown below for balanced or unbalanced output devices.



CAUTION

For unbalanced audio, connect the sleeve(s) to the ground. **DO NOT** connect the sleeve to the negative (-) contact.



Front Panel Features

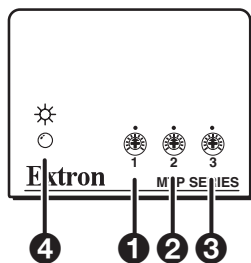


Figure 3. Front Panel Features

- 1 2 3 **Input channel audio gain controls** — Adjusts the audio input gain for each input. The gain is adjusted by rotating the screw and the adjustment range is from mute (fully counterclockwise) to +20 dB (fully clockwise). See the note below.

NOTE: Unity gain (0 dB) for each input channel is around the 12 o'clock (vertical) position with the potentiometer adjustment screws vertically aligned with the indicator dots, as shown on the right:



The potentiometers of the MIX 301 are set precisely to unity gain at the factory. Once an adjustment screw is turned, test equipment will be required to accurately reset the potentiometer to unity gain.

- 4 **Power LED** — Lights green to indicate that the MIX 301 has power.

FCC Class A Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. The Class A limits provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause interference. This interference must be corrected at the expense of the user.

For information on safety guidelines, regulatory compliances, EMI/EMF compatibility, accessibility, and related topics, see the **Extron Safety and Regulatory Compliance Guide** on the Extron website.