

## User's Manual



**MIX 301**  
3-channel Audio Mixer

68-1048-01 Rev. B  
11 08

<p>Extron USA - West Headquarters +800.633.9876 Inside USA / Canada Only +1.714.491.1500 +1.714.491.1517 FAX</p>	<p>Extron USA - East +800.633.9876 Inside USA / Canada Only +1.919.863.1794 +1.919.863.1797 FAX</p>	<p>Extron Europe +800.3987.6673 Inside Europe Only +31.33.453.4040 +31.33.453.4050 FAX</p>	<p>Extron Asia +800.7339.8766 Inside Asia Only +65.6383.4400 +65.6383.4664 FAX</p>	<p>Extron Japan +81.3.3511.7655 +81.3.3511.7656 FAX</p>	<p>Extron China +400.883.1568 Inside China Only +86.21.3760.1568 +86.21.3760.1566 FAX</p>	<p>Extron Middle East +971.4.2991800 +971.4.2991880 FAX</p>
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# Precautions

## Safety Instructions • English



This symbol is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.



This symbol is intended to alert the user of the presence of uninsulated dangerous voltage within the product's enclosure that may present a risk of electric shock.

## Caution

**Read Instructions** • Read and understand all safety and operating instructions before using the equipment.

**Retain Instructions** • The safety instructions should be kept for future reference.

**Follow Warnings** • Follow all warnings and instructions marked on the equipment or in the user information.

**Avoid Attachments** • Do not use tools or attachments that are not recommended by the equipment manufacturer because they may be hazardous.

## Consignes de Sécurité • Français



Ce symbole sert à avertir l'utilisateur que la documentation fournie avec le matériel contient des instructions importantes concernant l'exploitation et la maintenance (réparation).



Ce symbole sert à avertir l'utilisateur de la présence dans le boîtier de l'appareil de tensions dangereuses non isolées posant des risques d'électrocution.

## Attention

**Lire les instructions** • Prendre connaissance de toutes les consignes de sécurité et d'exploitation avant d'utiliser le matériel.

**Conservier les instructions** • Ranger les consignes de sécurité afin de pouvoir les consulter à l'avenir.

**Respecter les avertissements** • Observer tous les avertissements et consignes marqués sur le matériel ou présentés dans la documentation utilisateur.

**Eviter les pièces de fixation** • Ne pas utiliser de pièces de fixation ni d'outils non recommandés par le fabricant du matériel car cela risquerait de poser certains dangers.

## Sicherheitsanleitungen • Deutsch



Dieses Symbol soll dem Benutzer in der im Lieferumfang enthaltenen Dokumentation besonders wichtige Hinweise zur Bedienung und Wartung (Instandhaltung) geben.



Dieses Symbol soll den Benutzer darauf aufmerksam machen, daß im Inneren des Gehäuses dieses Produktes gefährliche Spannungen, die nicht isoliert sind und die einen elektrischen Schock verursachen können, herrschen.

## Achtung

**Lesen der Anleitungen** • Bevor Sie das Gerät zum ersten Mal verwenden, sollten Sie alle Sicherheits- und Bedienungsanleitungen genau durchlesen und verstehen.

**Aufbewahren der Anleitungen** • Die Hinweise zur elektrischen Sicherheit des Produktes sollten Sie aufbewahren, damit Sie im Bedarfsfall darauf zurückgreifen können.

**Befolgen der Warnhinweise** • Befolgen Sie alle Warnhinweise und Anleitungen auf dem Gerät oder in der Benutzerdokumentation.

**Keine Zusatzgeräte** • Verwenden Sie keine Werkzeuge oder Zusatzgeräte, die nicht ausdrücklich vom Hersteller empfohlen wurden, da diese eine Gefahrenquelle darstellen können.

## Instrucciones de seguridad • Español



Este símbolo se utiliza para advertir al usuario sobre instrucciones importantes de operación y mantenimiento (o cambio de partes) que se desean destacar en el contenido de la documentación suministrada con los equipos.



Este símbolo se utiliza para advertir al usuario sobre la presencia de elementos con voltaje peligroso sin protección aislante, que puedan encontrarse dentro de la caja o alojamiento del producto, y que puedan representar riesgo de electrocución.

## Precaucion

**Leer las instrucciones** • Leer y analizar todas las instrucciones de operación y seguridad, antes de usar el equipo.

**Conservar las instrucciones** • Conservar las instrucciones de seguridad para futura consulta.

**Obedecer las advertencias** • Todas las advertencias e instrucciones marcadas en el equipo o en la documentación del usuario, deben ser obedecidas.

**Evitar el uso de accesorios** • No usar herramientas o accesorios que no sean específicamente recomendados por el fabricante, ya que podrían implicar riesgos.

## Warning

**Power sources** • This equipment should be operated only from the power source indicated on the product. This equipment is intended to be used with a main power system with a grounded (neutral) conductor. The third (grounding) pin is a safety feature, do not attempt to bypass or disable it.

**Power disconnection** • To remove power from the equipment safely, remove all power cords from the rear of the equipment, or the desktop power module (if detachable), or from the power source receptacle (wall plug).

**Power cord protection** • Power cords should be routed so that they are not likely to be stepped on or pinched by items placed upon or against them.

**Servicing** • Refer all servicing to qualified service personnel. There are no user-serviceable parts inside. To prevent the risk of shock, do not attempt to service this equipment yourself because opening or removing covers may expose you to dangerous voltage or other hazards.

**Slots and openings** • If the equipment has slots or holes in the enclosure, these are provided to prevent overheating of sensitive components inside. These openings must never be blocked by other objects.

**Lithium battery** • There is a danger of explosion if battery is incorrectly replaced. Replace it only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

## Avertissement

**Alimentations** • Ne faire fonctionner ce matériel qu'avec la source d'alimentation indiquée sur l'appareil. Ce matériel doit être utilisé avec une alimentation principale comportant un fil de terre (neutre). Le troisième contact (de mise à la terre) constitue un dispositif de sécurité: n'essayez pas de le contourner ni de la désactiver.

**Déconnexion de l'alimentation** • Pour mettre le matériel hors tension sans danger, déconnectez tous les cordons d'alimentation de l'arrière de l'appareil ou du module d'alimentation de bureau (s'il est amovible) ou encore de la prise secteur.

**Protection du cordon d'alimentation** • Acheminer les cordons d'alimentation de manière à ce que personne ne risque de marcher dessus et à ce qu'ils ne soient pas écrasés ou pincés par des objets.

**Réparation-maintenance** • Faire exécuter toutes les interventions de réparation-maintenance par un technicien qualifié. Aucun des éléments internes ne peut être réparé par l'utilisateur. Afin d'éviter tout danger d'électrocution, l'utilisateur ne doit pas essayer de procéder lui-même à ces opérations car l'ouverture ou le retrait des couvercles risquent de l'exposer à de hautes tensions et autres dangers.

**Fentes et orifices** • Si le boîtier de l'appareil comporte des fentes ou des orifices, ceux-ci servent à empêcher les composants internes sensibles de surchauffer. Ces ouvertures ne doivent jamais être bloquées par des objets.

**Lithium Batterie** • Il a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur. Mettre au reut les batteries usagées conformément aux instructions du fabricant.

## Vorsicht

**Stromquellen** • Dieses Gerät sollte nur über die auf dem Produkt angegebene Stromquelle betrieben werden. Dieses Gerät wurde für eine Verwendung mit einer Hauptstromleitung mit einem geerdeten (neutralen) Leiter konzipiert. Der dritte Kontakt ist für einen Erdschluss, und stellt eine Sicherheitsfunktion dar. Diese sollte nicht umgangen oder außer Betrieb gesetzt werden.

**Stromunterbrechung** • Um das Gerät auf sichere Weise vom Netz zu trennen, sollten Sie alle Netzkabel aus der Rückseite des Gerätes, aus der externen Stromversorgung (falls dies möglich ist) oder aus der Wandsteckdose ziehen.

**Schutz des Netzkabels** • Netzkabel sollten stets so verlegt werden, daß sie nicht im Weg liegen und niemand darauf treten kann oder Objekte darauf- oder unmittelbar dagegestellt werden können.

**Wartung** • Alle Wartungsmaßnahmen sollten nur von qualifiziertem Servicepersonal durchgeführt werden. Die internen Komponenten des Gerätes sind wartungsfrei. Zur Vermeidung eines elektrischen Schocks versuchen Sie in keinem Fall, dieses Gerät selbst öffnen, da beim Entfernen der Abdeckungen die Gefahr eines elektrischen Schlags und/oder andere Gefahren bestehen.

**Schlitze und Öffnungen** • Wenn das Gerät Schlitze oder Löcher im Gehäuse aufweist, dienen diese zur Vermeidung einer Überhitzung der empfindlichen Teile im Inneren. Diese Öffnungen dürfen niemals von anderen Objekten blockiert werden.

**Litium-Batterie** • Explosionsgefahr, falls die Batterie nicht richtig ersetzt wird. Ersetzen Sie verbrauchte Batterien nur durch den gleichen oder einen vergleichbaren Batterietyp, der auch vom Hersteller empfohlen wird. Entsorgen Sie verbrauchte Batterien bitte gemäß den Herstelleranweisungen.

## Advertencia

**Alimentación eléctrica** • Este equipo debe conectarse únicamente a la fuente/tipo de alimentación eléctrica al equipo, desenchufar todos los cables de alimentación que debe provenir de un sistema de distribución general con conductor neutro a tierra. La tercera pata (puesta a tierra) es una medida de seguridad, no puentearia ni eliminaria.

**Desconexión de alimentación eléctrica** • Para desconectar con seguridad la acometida de alimentación eléctrica al equipo, desenchufar todos los cables de alimentación en el panel trasero del equipo, o desenchufar el módulo de alimentación (si fuera independiente), o desenchufar el cable del receptáculo de la pared.

**Protección del cables de alimentación** • Los cables de alimentación eléctrica se deben instalar en lugares donde no sean pisados ni apretados por objetos que se puedan apoyar sobre ellos.

**Reparaciones/mantenimiento** • Solicitar siempre los servicios técnicos de personal calificado. En el interior no hay partes a las que el usuario deba acceder. Para evitar riesgo de electrocución, no intentar personalmente la reparación/mantenimiento de este equipo, ya que al abrir o extraer las tapas puede quedar expuesto a voltajes peligrosos u otros riesgos.

**Ranuras y aberturas** • Si el equipo posee ranuras o orificios en su caja/alojamiento, es para evitar el sobrecalentamiento de componentes internos sensibles. Estas aberturas nunca se deben obstruir con otros objetos.

**Batería de litio** • Existe riesgo de explosión si esta batería se coloca en la posición incorrecta. Cambiar esta batería únicamente con el mismo tipo (o su equivalente) recomendado por el fabricante. Desachar las baterías usadas siguiendo las instrucciones del fabricante.

# Extron's Warranty

Extron Electronics warrants this product against defects in materials and workmanship for a period of three years from the date of purchase. In the event of malfunction during the warranty period attributable directly to faulty workmanship and/or materials, Extron Electronics will, at its option, repair or replace said products or components, to whatever extent it shall deem necessary to restore said product to proper operating condition, provided that it is returned within the warranty period, with proof of purchase and description of malfunction to:

## USA, Canada, South America, and Central America:

Extron USA  
1001 East Ball Road  
Anaheim, CA 92805  
U.S.A.

## Europe, Africa, and the Middle East:

Extron Europe  
Hanzeboulevard 10  
3825 PH Amersfoort  
The Netherlands

## Asia:

Extron Asia  
135 Joo Seng Road #04-01  
PM Industrial Bldg.  
Singapore 368363  
Singapore

## Japan:

Extron Japan  
Kyodo Building, 16 Ichibancho  
Chiyoda-ku, Tokyo 102-0082  
Japan

## China:

Extron China  
686 Ronghua Road  
Songjiang District  
Shanghai 201611  
China

## Middle East:

Extron Middle East  
Dubai Airport Free Zone  
F12, PO Box 293666  
United Arab Emirates, Dubai

This Limited Warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions or non-Extron authorized modification to the product.

*If it has been determined that the product is defective, please call Extron and ask for an Applications Engineer at (714) 491-1500 (USA), 31.33.453.4040 (Europe), 65.6383.4400 (Asia), or 81.3.3511.7655 (Japan) to receive an RA# (Return Authorization number). This will begin the repair process as quickly as possible.*

Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage.

Please note that laws vary from state to state and country to country, and that some provisions of this warranty may not apply to you.

## 安全须知 • 中文



这个符号提示用户该设备用户手册中的操作和维护说明。



这个符号警告用户该设备机壳内暴露的危险电压，有触电危险。

### 注意

**阅读说明书** • 用户使用该设备前必须阅读并理解有安全和使用说明。

**保存说明书** • 用户应保存安全说明书以备将来使用。  
**遵守警告** • 用户应遵守产品和用户指南上的所有安全和操作说明。

**避免追加** • 不要使用该产品厂商没有推荐的工具或追加设备，以避免危险。

### 警告

**电源** • 该设备只能使用产品上标明的电源。设备必用有地线供电系统供电。第三条线（地线）是安设施，不能不用或跳过。

**拔掉电源** • 为安全地从设备拔掉电源，请拔掉所有后备或桌面电源的电源线，或任何接到市电系统电源线。

**电源线保护** • 妥善布线，避免被踩踏，或重物挤压。

**维护** • 所有维修必须由认证的维修人员进行。设备部没有用户可以更换的零件。为避免出现触电危险不要自己试图打开设备盖子维修该设备。

**通风孔** • 有些设备机壳上有通风槽或孔，它们是用防止机内敏感元件过热。不要用任何东西挡住通风孔。

**锂电池** • 不正确的更换电池会有爆炸的危险。必须使与厂家推荐的相同或相近型号的电池。按照生产厂的议处理废弃电池。

## 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. These limits are designed to 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 harmful interference, in which case the user will be required to correct the interference at his own expense.

**NOTE** *This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to ensure compliance.*

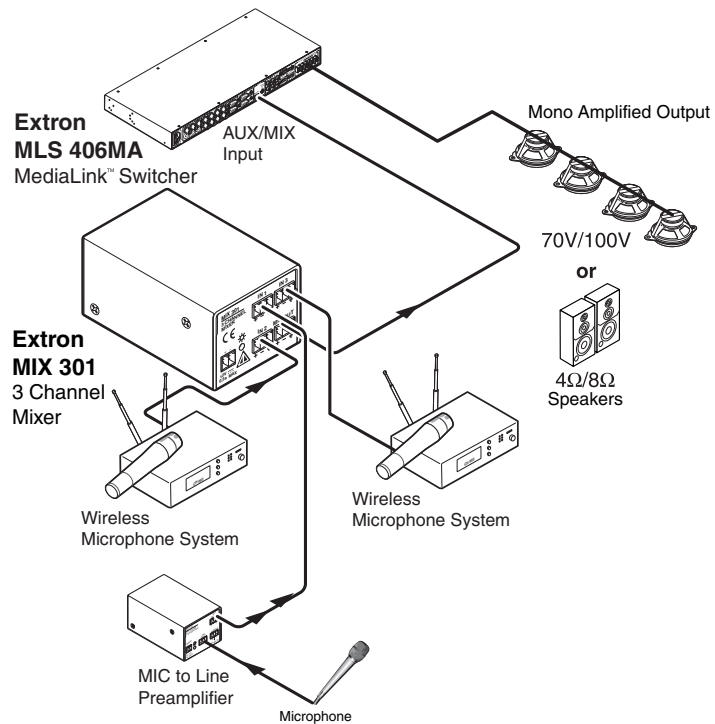
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## Introduction

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The MIX 301 is a three-input, one-output VersaTools™ line level audio mixer. The MIX 301's features include the following:

- Recessed trim potentiometers on the front panel for individual input gain adjustments (from mute to +20 dB)
- Compact 1U, one-eighth rack, VersaTools metal enclosure
- Power indicators on both front and back panels
- Several mounting options, including rack mounting in an Extron VersaTools or standard 1U rack shelf
- Three mono, balanced or unbalanced audio inputs
- One mono, balanced audio output
- Captive screw connections for ease of installation



# Installation and Operation

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## 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.

### Tabletop use

The MIX 301 comes with four, self-adhesive rubber feet (not attached). Follow these instructions for a tabletop installation:

1. Attach the rubber feet to the underside of the MIX 301 near the corners of the unit.
2. Place the MIX 301 unit in the desired location.

### 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 ( $T_{ma} = +122\text{ }^{\circ}\text{F}$ ,  $+50\text{ }^{\circ}\text{C}$ ) 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.
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).

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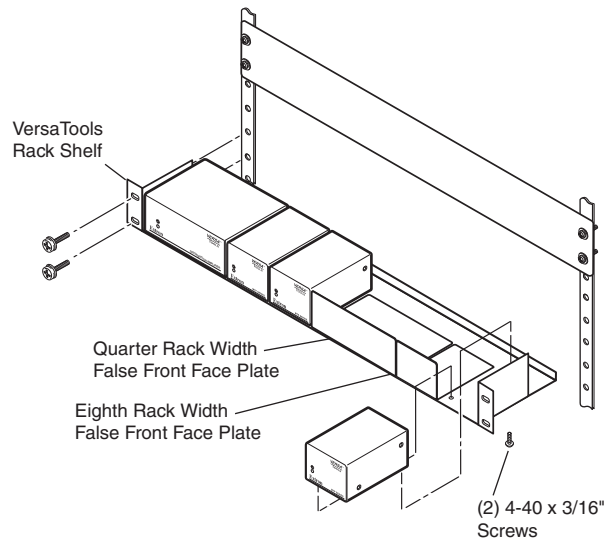
## Rack installation

The MIX 301 can be rack mounted using either the RSF 123 VersaTools 19" 1U rack shelf (Extron part #60-190-20), the RSB 123 basic VersaTools rack shelf (Extron part #60-604-20), an RSU 129 standard universal 1U rack shelf (Extron part #60-190-01), or an RSB 129 1U basic rack shelf (Extron part #60-604-01). Figure 1 shows the VersaTools rack shelf, and figure 2 shows a standard rack shelf. On the standard rack shelf, there are eight mounting locations at the front of the shelf or eight at the rear of the shelf.

1. Remove the rubber feet from the unit, if previously installed.
2. Mount the unit on the rack shelf, using two 4-40 x 3/16" screws. These screws go into holes on the underside of the unit near the left-front and right-rear corners.

**NOTE** Only products in the VersaTools line can be mounted on a VersaTools rack shelf.

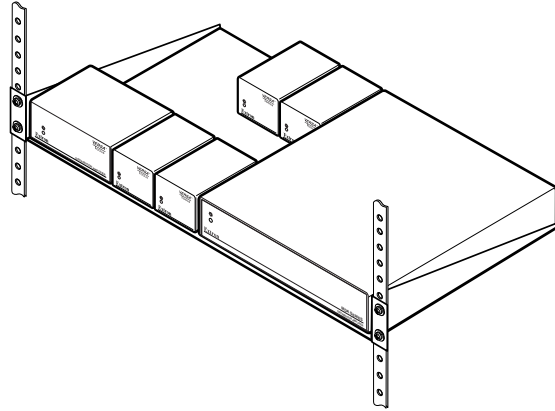
3. Install blank panels (included with Extron part #60-190-xx, optional with Extron part #60-604-xx) or other units on the rack shelf.



**Figure 1 — Mounting the MIX 301 on a VersaTools rack shelf**

## Installation and Operation, cont'd

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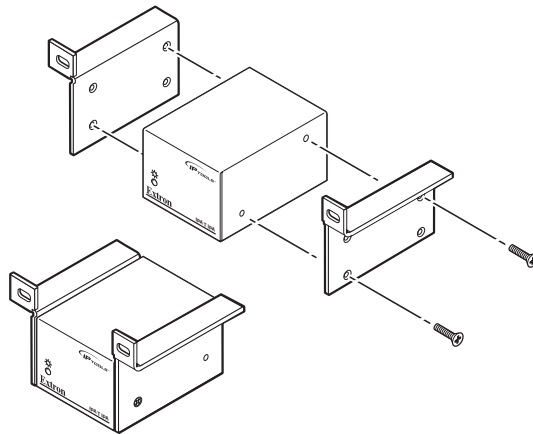


**Figure 2 — Mounting the MIX 301 on a standard 1U rack shelf**

### Back of the rack installation

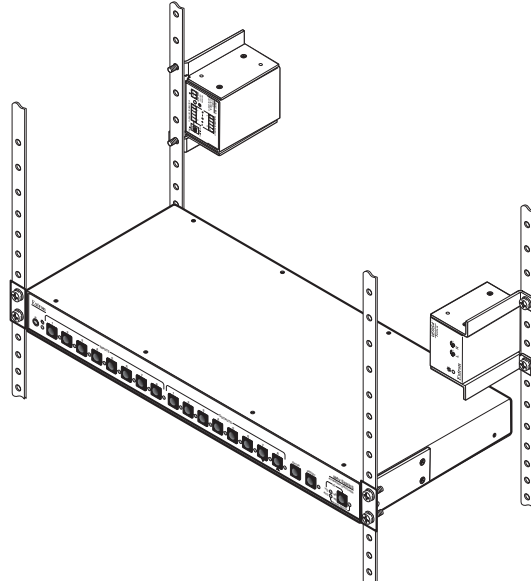
The MIX 301 can be conveniently mounted on the rear of a rack by using the Extron MBB 100 back of the rack mounting kit (Extron part #70-367-01). The back of the rack mounting kit allows the MIX 301 to be vertically positioned.

1. Attach the two back of the rack mounting brackets to the sides of the MIX using the four included mounting screws.



2. Mount the unit on the rack using the two included rack screws. The MIX 301 can be vertically mounted facing in either direction, as shown in the following diagram.



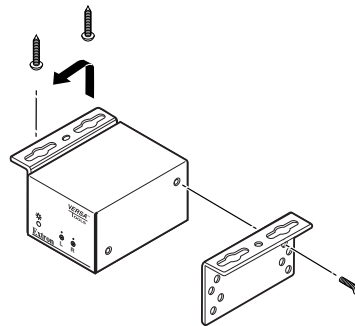


## Furniture/Projector mounting

Use the optional MBU 123 mounting kit (furniture, part #70-212-01, or the PMK 100 projector pole mount kit, part #70-217-01) to mount the MIX 301, as follows.

### Furniture mounting

1. Remove the rubber feet if they were previously installed.
2. Attach the mounting bracket to the MIX 301, as shown here.
  - a. Remove the two machine screws from one side of the unit. Save these screws for future use.
  - b. After lining up a bracket with the holes, attach the bracket using the longer machine screws provided.
  - c. Repeat this step to attach the other bracket.
3. Attach the MIX 301 to the furniture.



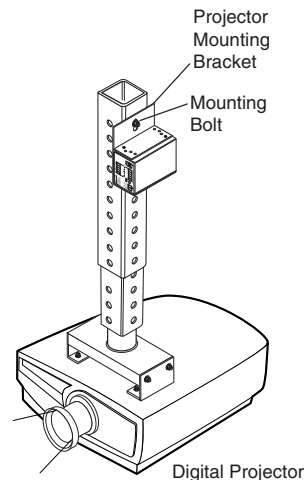
## Installation and Operation, cont'd

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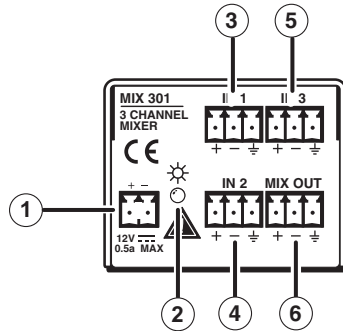
- a. Hold the unit against the underside of the table or other furniture, and mark the locations for four screws (two screws per bracket) on the mounting surface.
- b. At each mark, drill a 3/32" (2 mm) diameter pilot hole approximately 1/4" (6 mm) deep in the mounting surface.
- c. Insert #8 wood screws into the four pilot holes. Tighten each screw into the mounting surface until just less than 1/4" (6 mm) of the screw protrudes.
- d. Align the bracket slots with the wood screws and place the unit against the mounting surface.
- e. Slide the unit either forward or backward until the screws are in contact with the edge of the bracket slots. Then, tighten each screw to secure the unit in place.

### Projector mounting

1. Remove the rubber feet if they were previously installed.
2. Attach the mounting bracket to the MIX 301 with the machine screws provided.
3. Secure the unit to a projector mount or other surface using mounting bolts as shown in the following diagram.

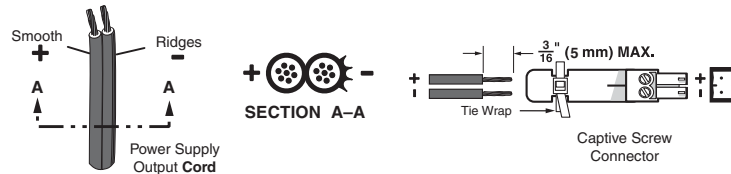


## Rear Panel Features and Cabling



**Figure 3 — MIX 301 rear panel**

- ① **Captive screw power input connector** — 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.



### CAUTION

When connecting the power supply, voltage polarity is extremely important. Applying power with incorrect voltage polarity could damage the power supply and the MIX 301. Identify the power cord negative (ground) lead by the ridges on the side of the cord or a black heat shrink wrapping around it.

### WARNING

The two power cord wires must be kept separate while the power supply is plugged in. Remove power before wiring.

To verify the polarity before connection, check the no load power supply output with a voltmeter.

### 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 ideal length of exposed (stripped) copper wire for the blue connector is 3/16" (5 mm).

## Installation and Operation, cont'd

The blue connector does not have the extended tail or the included tie-wrap.

**NOTE** Do not tin the power supply leads before installing in the direct insertion connector. Tinned wires are not as secure in the connectors and could be pulled out.

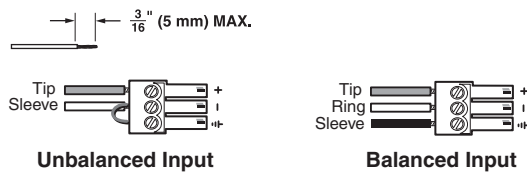
**NOTE** After making any adjustments to the MIX 301, either via the front panel controls, SIS commands, or the Extron Audio Products Control Program, wait at least 10 seconds after making those changes **before** disconnecting power to the MIX 301. Failure to observe the 10-second timeout may result in those adjustments not being saved.

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.

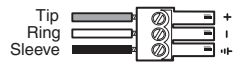
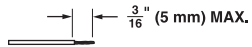
**NOTE** Do not tin the connector leads before installing them in the connector. Tinned wires are not as secure in the connectors and could be pulled out. For further wiring details, see the included "Cable Preparation For Audio Connections" card.



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.

**NOTE**

Do not tin the connector leads before installing them in the connector. Tinned wires are not as secure in the connectors and could be pulled out. For further wiring details, see the included "Cable Preparation For Audio Connections" card.



**Balanced Output**



**CAUTION**

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

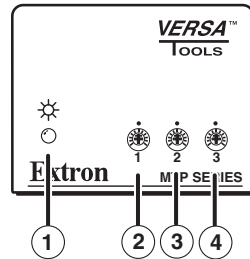


**Unbalanced Output**

## Installation and Operation, cont'd

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### Front Panel Features



**Figure 4 — MIX 301 front panel**

- ① **Power LED** — Lights green to indicate that the MIX 301 has power.
  
- ② ③ ④ **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 here:*



*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.*

## Reference Information

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### Specifications

#### Audio

Gain .....	Adjustable per input. When all three gain potentiometers are set to 12 o'clock, the gain is as follows: Unbalanced output: -6 dB Balanced output: 0 dB
Frequency response .....	20 Hz to 20 kHz, $\pm 0.05$ dB
THD + Noise .....	0.05% @ 1 kHz at nominal level
S/N .....	>90 dB, balanced, at maximum output (unweighted)
CMRR .....	>70 dB @ 60 Hz to 20 kHz

#### Audio input

Number/signal type .....	3 mono, balanced/unbalanced
Connectors .....	(3) 3.5 mm captive screw connectors, 3 pole
Impedance .....	>18k ohms unbalanced/balanced, DC coupled
Nominal level .....	-10 dBV (316 mVrms) or +4 dBu (1.23 Vrms)
Maximum level .....	>+18 dBV, (balanced or unbalanced) at 1% THD+N
Input gain adjustment .....	Mute to +20 dB, adjustable per input

**NOTE**  $0 \text{ dBu} = 0.775 \text{ Vrms}$ ,  $0 \text{ dBV} = 1 \text{ Vrms}$ ,  $0 \text{ dBV} \approx 2 \text{ dBu}$

#### Audio output

Number/signal type .....	1 mono, balanced/unbalanced
Connectors .....	(1) 3.5 mm captive screw connector, 3 pole
Impedance .....	50 ohms unbalanced, 100 ohms balanced
Nominal level .....	-10 dBV (316 mVrms) unbalanced, or +4 dBu (1.23 Vrms) balanced, adjustable
Maximum level .....	+25 dBu, balanced with 100k ohm load at 1% THD+N +18 dBm balanced with 600 ohm load at 1% THD+N

#### General

External power supply .....	100 VAC to 240 VAC, 50/60 Hz, external, autoswitchable; to 12 VDC, 1 A, regulated
Power input requirements .....	12 VDC, 0.2 A (max.)

## Reference Information, cont'd

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Temperature/humidity .....	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Rack mount .....	Yes, with optional 1U rack shelf, part #60-190-01 or 60-604-01; or VersaTools® rack shelf, part #60-190-20 or 60-604-20; or the Back of the Rack Mounting Kit #70-367-01. Also furniture mountable with Under- desk Mounting Kit, part #70-212-01, or attachable to a projector mount with optional mounting kit #70-217-01.
Enclosure type .....	Metal
Enclosure dimensions .....	1.7" H x 2.2" W x 3.0" D (1U high, one- eighth rack wide) 4.3 cm H x 5.6 cm W x 7.6 cm D (Depth excludes connectors.)
Product weight .....	0.2 lbs (0.1 kg)
Shipping weight .....	2 lbs (2 kg)
Vibration .....	ISTA 1A in carton (International Safe Transit Association)
Listings .....	UL, CUL
Compliances .....	CE, FCC Class A, VCCI, AS/NZS, ICES
MTBF .....	30,000 hours
Warranty .....	3 years parts and labor

**NOTE** *All nominal levels are at ±10%.*

**NOTE** *Specifications are subject to change without notice.*



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## Parts List

### Included parts

Included parts	Part number to reorder
MIX 301	60-737-01
Power supply: universal 12 VDC, 1.0 A	70-055-01
3.5 mm captive screw connectors, 3-pole (x4)	10-319-13
3.5 mm captive screw connector, 2-pole	
Tweezer (small screwdriver)	
Rubber feet (unattached)	
User's manual	

### Optional Accessories

Accessories	Part numbers
MBB 100 back of the rack mounting kit	70-367-01
RSF 123 1U 19" VersaTools rack shelf kit	60-190-20
RSB 123 Basic VersaTools rack shelf	60-604-20
RSU 129 1U 19" rack shelf kit	60-190-01
RSB 129 1U basic rack shelf kit	60-604-01
MBU 123 Under desk mounting kit	70-212-01
PMK 100 Projector pole mounting kit	70-217-01

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