



TX6000

6 Channel Mic/Line Mixer



Operating Manual

TX6000, 6 Channel Mic/Line Mixer

Product Description

The TX6000 is a 6 channel audio mixer that operates from 240 VAC @ 50 Hz (115 VAC @ 60 Hz with factory modification) or 24 VDC via an external battery supply. The TX6000 is 1 standard rack unit high (44mm) and has a standard rack width of 482mm. For table mounting, rubber feet are supplied but these can be removed if rack mounting is intended. Six dual purpose inputs consisting of XLR balanced mic inputs and dual RCA aux/line level inputs are included. Channel 6 has a less sensitive aux/line level input to enable it to accept a CD player or similar high level inputs.



Front Panel Features

Input Level Controls

The 6 dual mic/line input controls are marked Ch 1 through Ch 6 and should be adjusted to provide the required mix level for each individual channel. Start with the controls set to level 0 and turn the controls slowly clockwise until the desired mix for each channel is obtained.

Bass Control

The Bass control is part of a 2 band equalisation system within the TX6000. The Bass control allows the user to increase or decrease the amount of bass in the system. The control allows for 12dB of cut or boost at 100Hz. If no bass cut or boost is required, the control should be left in the centre (0) position.

Treble Control

The Treble control is part of a 2 band equalisation system within the TX6000. The Treble control allows the user to increase or decrease the amount of treble in the system. The control allows for 9dB of cut or boost at 10kHz. Generally, a small increase of the treble control makes a system sound 'brighter'. If no treble cut or boost is required, the control should be left in the centre (0) position.

Master Control

The master control sets the overall output level of the TX6000. It is used in conjunction with the input level controls. When setting up levels, please ensure that proper gain structure practices are followed. In other words, it is not advisable to run the input channels at 10 and the output level at 1. Instead, aim to keep all of the input controls and the master control at around the same level.

Headphone Output Socket

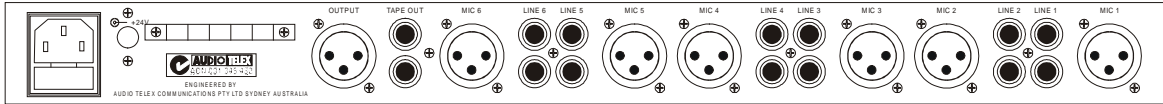
A 1/4" (6.35mm) socket is provided for the connection of monitor headphones. The output level to the headphones is a nominal 3.5 volts @ 600 ohms and is connected before the master output level control so adjusting the output level control will not effect the headphone output level.

Power Switch & "On" LED

The black rocker switch on the right hand side of the front panel is used to switch the mixer on and off. The 'up' position is on. When the amplifier is connected to an appropriate AC power source and is switched on, the blue "on" LED (located on the left side of the LED display) will illuminate.

LED Display VU Meter

The first LED indicates whether the unit is switched on. The remainder of the LED display is set in decibel graduations from -21 dB to +3 dB and indicates the level at the output of the mixer. For normal operation the LED's should glow green and modulate with level variations from the input program. If the LED's are consistently indicating red, then the mixer is being overdriven which will result in distortion. Avoid operating the mixer with the red LED's illuminated.



Rear Panel Features

AC Power Inlet

The 3 pin IEC power inlet is located on the left side of the rear panel and accepts a standard mains power lead fitted with an IEC connector. The operating voltage is 240 VAC @ 50 Hz (115 VAC @ 60 Hz with factory modification). The AC power voltage is **not** externally user adjustable but is factory preset. The inlet is equipped with an inbuilt AC fuse holder fitted with a 0.5 amp slow blow fuse plus one spare. Power consumption is 7 VA.

⚠ Please ensure that the mains power cord is disconnected before attempting to check or replace this fuse.

24 Volt DC Power Source Connection

Located to the top right of the IEC power inlet is a 2.1mm DC power socket which provides for the connection of an external 24 VDC battery. This is ideal for systems where battery backup is required or for applications where mains power is not available. The centre terminal post or pin is for connection to the positive (+) terminal. The sleeve is for connection to the negative (-) terminal.

Screw Terminals

The five screw terminals located on the rear panel allow for the connection of an optional tone module. The ATC5488 tone module is equipped with 4 tones and a common. The optional module would normally be fitted inside the mixer with the activation wires and common all connected to the screw terminals for easy external activation via switches or third party timers. The screw terminals are not connected internally when supplied from the factory.

Output Connector

The rear panel of the TX6000 includes a male XLR output connector. The output is an active balanced isolated output for connection to a power amplifier. The maximum output is 1.5V RMS. Pin connections are Pin 1 = Earth. Pin 2 = Active Positive (+). Pin 3 = Active Negative (-). **Note:** If an unbalanced output is required, use a 600 Ohm matching transformer or use only Pin 2 and Earth. Do not short any of the active outputs to earth.

Tape Output

Two RCA output connectors are included on the rear panel. These provide a line level record output from the mixer. The tape output provides a maximum of 700mV into 10K ohms making it ideal for connection to most standard tape recorders. This output is sourced before the master gain control and as such the tape output level is not influenced by the operation of the master gain control.

Microphone Inputs

The TX6000 includes six female XLR inputs which accept 200 ohm balanced or unbalanced microphones. Pin connections are Pin 1 = Earth. Pin 2 = Active Positive (+). Pin 3 = Active Negative (-).

Line Inputs

The TX6000 includes six dual RCA inputs for unbalanced line or aux devices such as tape recorders, video players, tuners etc. Channel 6 has been designed to accept higher level line inputs such as CD players. When using a CD player with the TX6000, please ensure it is plugged into the channel 6 line input. Dual RCA connectors are provided to allow for the simple connection of domestic stereo devices such as tape desks and CD players. Both the left and right outputs from these devices can be connected to the dual RCA's and will be summed to mono within the TX6000.

Note: Each input of the TX6000 has both a microphone and line connection. Please note that only one of these (on each channel) should be used at the same time.

Phantom Power

The microphone inputs on the TX6000 all provide +18v DC phantom power which is required for electret microphones. If desired, phantom power can be defeated via an internal jumper which is located on the output board near the line output XLR socket on the rear panel (position X4 on the output board). The default setting is with the link in the 'on' position, shorting the centre pin and the pin closest to the rear of the TX6000. To turn phantom power off, move the link to short the centre pin and the pin closest to the front of the TX6000. **Note: It is necessary to disconnect the power cord and remove the lid from the mixer before operating this switch.**

Optional Accessories

Note: The installation of some of the following optional accessories involves access to the inside of the mixer. Installation should only be attempted by a qualified technician. Always turn off the AC power and remove the AC power cord before attempting to access the inside of the mixer.

Tone Generator Module

An optional ATC5488 4 tone generator board is available for the TX6000. This internally mounted PCB can be easily fitted and plugs directly into a socket provided on the pre-amp circuit board inside the TX6000. The socket is located on the front board behind the input 5 level control. Please follow the instructions supplied with the tone generator. When any tone from the ATC5488 is activated (via contact closure) all inputs will automatically mute except for input 1. Tones available on the ATC5488 tone generator board are:

Evacuation Tone (to Australian Standard AS2220.1.2)

Alert Tone (to Australian Standard AS2220.1.2)

Bell Tone

Pre Announce Chime

Muting Modules

Two optional VOX (signal activated) muting modules are available for the TX6000. The TX3010 mutes channels 2-6 from input 1 while the TX3014 is a dual level muting module which mutes channels 2-6 from input 1 and 3-6 from input 2. Both modules plug into a socket provided on the pre-amp circuit board inside the TX6000. The socket is located directly behind the input 1 level control.

TX3010 Muting Module: Provides muting from channel 1 only. When activated, all other channels are muted

TX3014 Muting Module: Provides dual priority muting. Channel 1 mutes 2-6. Channel 2 mutes 3-6.

Fuse Sizes TX6000 Mixer

Mains 240 VAC: 0.5 Amperes Slow Blow

Important Safety Information

1. **Save the carton and packing material even if the equipment has arrived in good condition.** Should you ever need to ship the unit, use only the original factory packing.
 2. **Read all documentation before operating your equipment.** Retain all documentation for future reference.
 3. **Follow all instructions** printed on unit chassis for proper operation.
 4. **Do not spill water or other liquids into or on the unit,** or operate the unit while standing in liquid.
 5. **Make sure power outlets conform to the power requirements** listed on the back of the unit.
 6. **Do not use the unit if the electrical power cord is frayed or broken.** The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
 7. **Always operate the unit with the AC ground wire connected** to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
 8. **Mains voltage must be correct and the same as that printed on the rear of the unit.** Damage caused by connection to improper AC voltage is not covered by any warranty.
 9. **Have gain controls on amplifiers turned down during power-up** to prevent speaker damage if there are high signal levels at the inputs.
 10. **Power down & disconnect units from mains voltage before making connections.**
 11. **Never hold a power switch in the “ON” position if it won’t stay there itself!**
 12. **Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.**
 13. **Do not block fan intake or exhaust ports.** Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, weathersheet, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically “blown free” of foreign matter.
 14. **Do not remove the cover.** Removing the cover will expose you to potentially dangerous voltages. There are no user serviceable parts inside.
 15. **Do not drive the inputs with a signal level greater than that required to drive equipment to full output.**
 16. **Do not connect the inputs / outputs of amplifiers or consoles to any other voltage source,** such as a battery, mains source, or power supply, regardless of whether the amplifier or console is turned on or off.
 17. **Do not run the output of any amplifier channel back into another channel’s input. Do not parallel- or series-connect an amplifier output with any other amplifier output.**
- Audio Telex Communications Pty Ltd is not responsible for damage to loudspeakers for any reason.*
18. **Do not ground any red (“hot”) terminal. Never connect a “hot” (red) output to ground or to another “hot” (red) output!**
 19. **Non-use periods.** The power cord of equipment should be unplugged from the outlet when left unused for a long period of time.
 20. **Service Information** Equipment should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged.
 - B. Objects have fallen, or liquid has been spilled into the equipment
 - C. The equipment has been exposed to rain
 - D. The equipment does not appear to operate normally, or exhibits a marked change in performance
 - E. The equipment has been dropped, or the enclosure damaged.



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