

# Operating Instructions

**TX8201**  
**8 Channel Stereo Mixer**  
**with 6 Direct Outputs**





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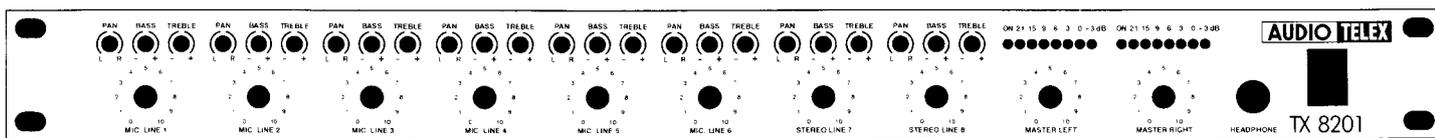
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# TX8201 Stereo Mixer with Direct Outputs

## Product Description

The TX8201 is a single rack height, 8 channel stereo mixer suitable for desk or 19" rack mounting. The TX8201 has 6 balanced microphone or line inputs and 2 stereo auxiliary inputs. Each input channel has individual bass, treble and pan controls. The first 6 channels feature a line level direct output which can be used to feed additional amplifiers, mixers or recording devices. An internal jumper allows the first 6 inputs to be removed from the master left/right outputs while still retaining their direct output function. The TX8201 features in-built VOX muting and a 4 tone generator with Alert, Evacuate, Pre-Announce and Bell tones.

## Front Panel Controls



**Mic/Line Gain:** The first 6 inputs are labeled Mic.Line 1 to Mic.Line 6 respectively 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 clockwise until the desired mix level for each channel is reached. Each of the 6 inputs is equipped with a mic/line selector dip switch which is located inside the unit (see the 'Internal Adjustments' section of this manual for more details). Please ensure that this switch is in the correct position for the type of input (mic or line) that you are connecting to each channel. The input sensitivity when in the mic level position is 1mV (for a 1 Volt output). The input sensitivity when in the line level position is 330mV (for a 1 Volt output)

**Stereo Line Gain:** The 2 auxiliary input channels are labeled Stereo Line 7 and Stereo Line 8. These controls should be adjusted to provide the required mix level for each individual auxiliary channel. Start with the controls set to Level 0 and turn the controls clockwise until the desired mix level for each channel is reached. The sensitivity of auxiliary inputs 7 and 8 is 180 mV (for a 1 volt output).

**Master Left & Right Output:** The master Left and Right controls should be adjusted to set the overall mixer level for each output channel based on the individual levels already set via the input channel gain controls. Start with the output controls set at approximately the Level 5 position and adjust clockwise for more output level or counter-clockwise for less output level.

**Pan Control:** Each input channel has a recessed (screwdriver adjustable) pan control. The pan control determines what proportion of each input channel will be sent to either of the Left or Right output channels. Setting the pan control in the centre position will send equal signal levels to both the Left and Right master outputs. Turning the pan control in a clockwise direction will send progressively more signal to the Right output channel and less to the Left output channel. Turning the pan control in a counter-clockwise direction will send progressively more signal to the Left output channel and less to the Right output channel. The pan control allows the TX8201 to be used in dual zone applications.

**Bass Tonal Control:** Each input channel has a recessed (screwdriver adjustable) bass tonal adjustment control labeled "Bass". Setting this control in the centre position will give a flat bass response. Adjusting the bass control in a clockwise direction will provide up to 12 dB of bass boost @ 100 Hz. Adjusting the bass control in a counter-clockwise direction will provide up to 12 dB of bass cut @ 100 Hz.

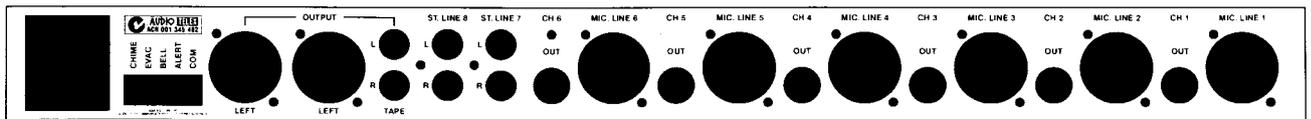
**Treble Tonal Control:** Each input channel has a recessed (screwdriver adjustable) treble tonal adjustment control labeled "Treble". Setting this control in the centre position will give a flat treble response. Adjusting the treble control in a clockwise direction will provide up to 10 dB of treble boost @ 10K Hz. Adjusting the treble control in a counter-clockwise direction will provide up to 10 dB of treble cut @ 10K Hz.

**VU Meter:** An 8 segment LED VU meter is provided for each of the master Left and Right outputs. The VU meters indicate output signal level from -21 to +3 dB. For normal operation the LED's should rarely oscillate in the red zone. If the LED's in the red zone are lit continually, then the output level controls should be turned counter-clockwise to reduce the output level. Too much output level can cause signal distortion and a mismatch with the device that the mixer is driving. The far left, amber LED on each the VU meters is for indication that AC power is switched ON to the unit only.

**Headphone Output Socket:** A 1/4" TRS stereo socket is provided for the connection of monitor headphones. The output level to the headphones is a nominal 3 volts @ 600 ohms and is connected before the master output level controls. Adjusting the master output level controls will not effect the headphone output level.

**Power Switch:** A rocker switch turns AC mains power ON and OFF to the TX8201. A power ON state is indicated by the amber LED on each of the VU meters.

## Rear Panel



**3 Pin IEC AC Mains Power Inlet.** The operating voltage is 240 VAC @ 50 Hz or 110 VAC @ 60 Hz. The AC power voltage level is **not** externally user adjustable but is factory pre-set. The inlet is equipped with an in-built AC fuse holder fitted with a 1 Amp fuse plus a spare. Power consumption is 15 VA. ⚡ **Please ensure that the mains power cord is disconnected before attempting to check or replace this fuse.**

**Tone Generator Barrier Strip.** The TX8201 includes a four tone generator module. The tones available include Alert, Evacuate, Pre-Announce and Bell. The four tones may be activated via a simple contact closure. To activate a tone, just short out the common terminal with the terminal labeled with the tone that you want to use. When activated, any of the four tones will mute all inputs except for channels 1 and 2. While the tone generator function is (as default) set up to be present on both the master outputs and the direct outputs (of channels 1-6), it can be disabled for all or any of the direct outputs via an internal dip switch (see the 'Internal Adjustments' section of this manual for more details). A trim pot (R104), which is located on the pcb behind the left channel master output, may be adjusted to vary the level of tone generator output.

**Left Channel Output Connection** This is an active balanced XLR connection with a nominal level of 1 volts @ 600 ohms. The pin connections are; pin #1-earth; pin #2-active (high, +); pin #3-active (low, -).

**Right Channel Output Connection.** This is an active balanced XLR connection with a nominal level of 1 volts @ 600 ohms. The pin connections are; pin #1-earth; pin #2-active (high, +); pin #3-active (low, -).

**Dual RCA Sockets For Output To A Stereo Tape Recorder.** Nominal 500mV @ 10K ohms. The top connector is the left channel output while the bottom connector is the right channel output. The tape outputs are connected before the master Left & Right output level controls so the tape output level is not affected by adjustments to the master level controls.

**Dual RCA Sockets For The 2 Stereo Auxiliary Inputs.** The top connectors are for the Left channel auxiliary inputs while the bottom connectors are for the Right channel auxiliary inputs. Reading from Left to Right across the rear panel, the connections are for auxiliary inputs 8 and 7.

**6 Active Balanced XLR Sockets For Microphone or Line Inputs.** Each XLR input is switchable to be either balanced mic or line (via an internal dip switch, the location and setting of which is explained in the 'Internal Adjustments' section of this manual). When set to mic level, the mic input sensitivity is 1mV ( for a 1 Volt output). When set to line level, the input sensitivity is 330 mV (for a 1 Volt output). Pin connections are: pin #1-earth; pin #2-active (high, +); pin #3-active (low, -). Phantom power of +15 volts is available on all 6 XLR inputs. An internal phantom power ON-OFF switch is provided for each channel. The default setting is

ON (See the 'Internal Adjustments' section of this manual for more details). Reading from left to right across the rear panel, the connection for the XLR mic/line inputs are 6, 5, 4, 3, 2, & 1 respectively.

**Direct Outputs.** A unique feature of the TX8201 is the individual direct output available for each of the first 6 channels. The direct outputs are accessed via balanced TRS 1/4" sockets for each channel. The level of each output is 1 Volt (nominal). Internal jumpers (JP1) allow signal from any of the first six channels to be disconnected from the main left/right outputs (See the 'Internal Adjustments' section of this manual for more information).

**Vox Muting.** Priority muting is provided for channels 1 and 2. Both channels have equal priority and will mute channels 3-8 when signal is present. The muting function may be disabled by moving the jumper labeled JP2 (located on the pcb behind the channel volume control). ON and OFF positions are clearly indicated on the pcb beside the jumper. The unit ships from the factory with muting enabled (JP2 -OFF) – that's right, OFF; it is a muting disable function, not a muting enable function. When channels 1 and 2 are disconnected from the main left/right outputs, the muting function is automatically disabled.

**Tone Generator.** A four tone generator is built into the TX8201. The tones available are Alert, Evacuate, Pre-Announce and Bell. All four tones can be activated individually via rear panel contact closures. All tones mute channels 3-8. Tones can be disabled from the direct outputs via an internal dip switch (See the 'Internal Adjustments' section of this manual for more information). A trim pot (R104) which is located on the board behind the left channel master output may be adjusted to vary the level of tone generator output.

## Internal Adjustments

☠ **The following adjustments involve access to the inside of the TX8201. Adjustment should only be attempted by qualified technician. Always turn off the AC power and remove the AC power cord before attempting to access the inside of the TX8201**

**Master Left/Right and Direct Out Assignment.** A jumper labeled JP1 is provided for each of the first 6 channels. The jumpers are located near the front of the unit. When in the ON position, signal from that channel is fed to both the master outputs and the direct outputs. When the switch is in the OFF position, signal from that channel is fed to the direct line level output only.

**Mic/Line Switch for Channels 1-6.** A four position dip switch is located on the main board behind each input. To set a channel for microphone level, set switches 1 and 2 (MIC) to the ON position. To set a channel for line level, set switches 1 and 2 to the OFF position. The unit ships from the factory set to mic level.

**Tone Generator to Direct Output Defeat Switch.** Signal from the tone generator can be removed from each direct output via switch # 4 (TG) on the internal dip switch per channel. When in the ON position, the tones (when activated) are fed to the corresponding direct output as well as the master Left/Right outputs. When the switch #4 is set to the OFF position, the tones are only present at the Master Left/Right outputs. A trim pot (R104) which is located on the board behind the left channel master output may be adjusted to vary the level of tone generator output.

**Phantom Power Defeat:** Each of the XLR inputs has access to +15v DC phantom power. Phantom power is selected via switch # 3 (PP) on the internal dip switches mentioned above. When switch # 3 is in the ON position, +15v phantom power is available on the XLR input. Care should be taken to disable phantom power before connecting any unbalanced or line source. The factory default position is with phantom power set to the ON position.

**Muting Defeat.** The muting function can be disabled by moving the jumper labeled JP2 (located behind channel 8 volume control). In the ON position muting is disabled, in the OFF position muting is enabled (go figure!). The unit ships from the factory with muting enabled, ie the jumper is set to the OFF position. When channels 1 and 2 are removed from the main left/right output, the muting function is automatically disabled.

**Looking for something worthy to connect to the inputs and outputs of your new TX8201? Well, please call your nearest Audio Telex Communications office for referral to your closest authorised dealer or for more information on the full selection of our compatible sound system products.**