

model 1201 • model 801



tangent

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PROFESSIONAL SOUND RE-INFORCEMENT MIXING CONSOLES

RECORDING CONSOLE QUALITY in a PA mixing board: the Tangent Model 1201 combines Super-Fi electronics with musician-user functions (Model 801 identical except four fewer input channels).

The same basic circuitry used in Tangent's ultra-clean studio consoles is used throughout the entire line of Tangent mixers.

Your performance is projected transparently to the audience, with only the coloration you add in. Effects, Reverb, and Monitor send controls on each channel give extensive flexibility in creating the proper mood for each song.

Tangent's Model 1201 is an extremely creative and reliable tool for any band demanding superior sound quality from their equipment.

inputs

Since quality begins at the input, all 12 microphone channels are *LO-IMPEDANCE BALANCED* with cannon-type connectors. As a convenience, each channel will simultaneously accept Hi-Impedance microphones or line level signals through a standard phone jack termination.

EFFECTS Send controls on each channel allow the musician to derive an independent twelve-by-one mix to be sent to a flanger, tape-echo unit, or other effects device. Since each channel has its own Effects Send control, you can put backing vocals and synthesizer through a phase-shifter, for example, but not the lead vocal.

The modified signal is returned to the Main output channel, where you can control the total amount of Effects added to the Main mix.

REVERB Send controls on each channel give another twelve-by-one mix that is sent to the 1201's own internal reverberation unit. This independent mix allows you to add reverb to one channel but not another.

As an example, you could put a lot of reverb on your voice, but none on acoustic guitar. The total amount of reverberated signal is controlled by the Reverb Return knob on the Main output channel.

MONITOR Send controls on each channel provide a *third* twelve-by-one mix for truly professional control. This independent Monitor function acts as a mixer-within-a-mixer. The Monitor allows musicians to hear what *they* need to hear to keep in-time and on-key. Regardless of the Main mix heard by the audience.

GAIN control is provided on each input to assure the lowest possible noise and distortion. The Gain knob varies the actual gain of the microphone preamp. This means if you bring down the level of a "hot" input (like a close-miked trumpet) by 20db, the noise of the pre-amp is also reduced by 20 db.

In contrast, switching a simple pad into the signal path still leaves the pre-amp

wide open (full gain and full noise). Consequently, using a 20db pad to attenuate the input will in fact *worsen* the signal-to-noise ratio by 20db.

Therefore, the Gain control (as in the Model 1201) is the superior approach.

One other advantage of the Gain control is that it allows you to operate the main Volume controls on each channel in a reasonable range.

For example, without a Gain control, a very loud instrument or voice input may have to be operated between "0" and "1" on the channel Volume, while a very soft input would be operating between "9" and "10". A Gain control evens out those extremes.

PEAK LED overload indicators are placed on each input channel and used with the Gain controls. When the fast-acting LED flashes above an input channel, the pre-amp is overloading. To eliminate the overload, turn the Gain control down until the LED goes off.

Without a Peak LED, you would only be guessing the amount of attenuation needed to prevent overload distortion.

BASS and **TREBLE** equalization (shelving type) are included on each channel, as well as the main **VOLUME**. The equalization pots have a "center detent" so you can feel when the control is out of the circuit.

Rotary pots are used throughout for maximum reliability.

outputs

LED METERING is the quickest responding, most accurate and rugged system available. We use LED column arrays on both the Main and Monitor outputs.

Since the red LEDs come on only in an overload situation, it's easy to watch all twelve input overload LEDs *plus* the Main and Monitor arrays for any overload condition.

The **REVERB RETURN** control determines the amount of reverberated signal from the internal reverb that is added to the Main output mix.

Likewise, the **EFFECTS RETURN** knob varies the amount of signal (returning from an external flanger, echo unit, graphic equalizer, etc.) that is incorporated into the Main output mix.

The **AUXILIARY** jack on the back panel is used as a "wild input" for the Main output mix. It accepts a line level signal, such as a tape deck (for pre-recorded effects or intermission music).

The **MONITOR** master is the return from the Monitor Send controls on each input channel. But instead of going into the Main mix, the independent Monitor mix is sent to a separate power-amp/speaker system that is heard only on stage.

BASS, MID, and TREBLE EQUALIZATION controls (with center detents) are

also provided on the Monitor output section to eliminate feedback.

BALANCED OUTPUTS with cannon-type connectors are provided on both the Main and Monitor sections. Phone jack terminals also provide unbalanced Main and Monitor outputs.

SYSTEMS COMPLETION using the Model 1201 would include a pair of Model BP 6030s, Tangent's bi-amplified, powered speaker columns.

Tangent's Model 1201: recording quality in a moderately-priced sound reinforcement mixing console.

specifications

Frequency response	15Hz — 40 KHz ±1db @ 4 dbm output
Total Harmonic Distortion	less than .075%, 50dbv gain, ±4dbm output
Signal to noise ratio	74 db
Equivalent input noise	better than — 125dbv, 20 - 20KHz, 150 ohms
Maximum gain (main or monitor out)	
Balanced LO-z mic HI-z Buss in	70db 50db 20 db
Gain control range	30 db
Peak Indicator threshold	+ 10 db
Maximum output	+18 db into 5 Kohms, +12 db into 600 ohms balanced
Crosstalk	60 db @ 1 KHz minimum
Equalization	± 15 db @ 10 KHz (Treble) ± 15 db @ 100 Hz (Bass)
Weight	20 lbs.
Dimensions	27" w x 18 1/2" L x 5 1/2" H

model 1201

model 801

Identical specifications and features as Model 1201 but with four fewer input channels.

model bp6030

Bi-amplified, powered speaker column. State-of-the-art electronic crossover. Dual power section exactly matched to speakers.



model 103

One-in three-out accessory item. Available in blue, yellow, and tan.

tangent
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