

Description

Rane takes performance mixer design as seriously as performing DJs take their art form. In an effort to provide the best instrument possible, Rane devoted two years of R&D to developing a mixer with unparalleled performance. The TTM 56 is flexible, durable, and feature packed. The audio quality of the TTM 56 qualifies it for use in the most demanding live venue, recording studio or live broadcast applications.

Non-Contact Crossfader and Channel Faders

Rane’s patented magnetic fader is the fastest, most accurate, and longest lasting on the planet. The design uses non-contact magnetic position sensor technology previously reserved for the most demanding aerospace and industrial applications. *No travel noise - No bleed - Ever!* Unlike optical non-contact faders, the magnetic fader is impervious to smoke, moisture, temperature and aging. The electrical performance is totally unaffected by use. The mechanical life of the magnetic fader exceeds 10 million operations.

These magnetic faders know exactly what your hand is doing! A proprietary curve-translation module converts your hand motion into precise audio level control. The TTM 56 offers the user more flexible curve selection and fader assignment options than ever before. This technology is used for both Channel Faders and the Crossfader.

The Crossfader control includes Reverse switch, Mode switch and *independent*, continuously adjustable Contours for A-side and B-side. In Mode 1, the Contour control adjusts from smooth blend to extremely fast cut. Select Mode 2 for center-cut effect (PGM 1 and PGM 2 off in the center) with full range Contour control.

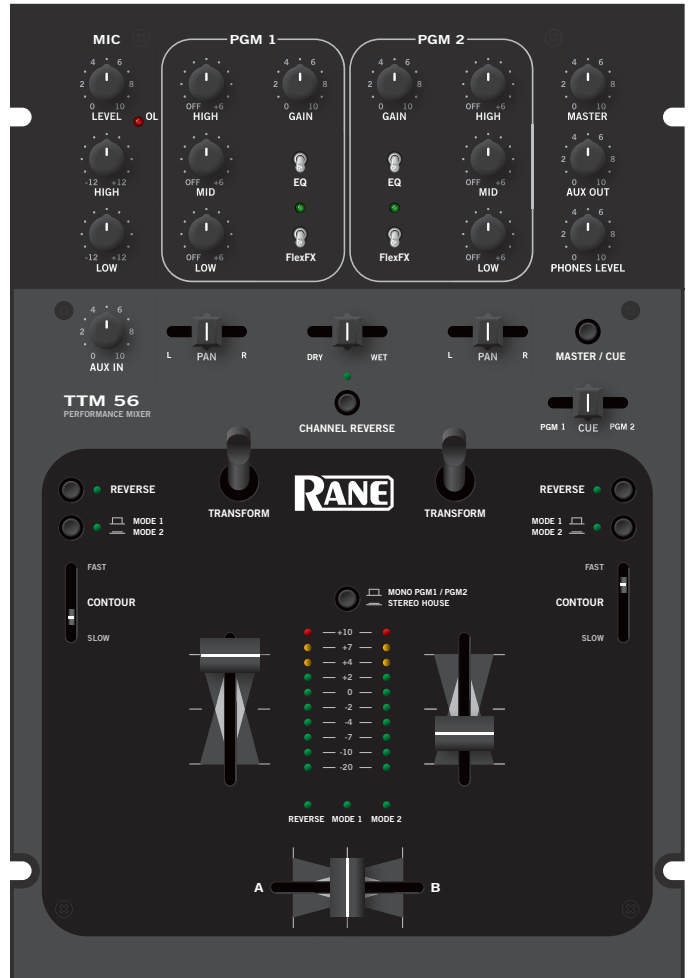
The Channel Fader controls include Reverse switches, Mode switches and continuously adjustable Contours. In Mode 1, the Contour control adjusts from smooth blend to extremely fast cut. Select Mode 2 for Left/Right pan effect with Contour control. The Channel Reverse switch allows left and right hand Channel Faders to control Program 1 or Program 2.

Post-Fader FlexFx™

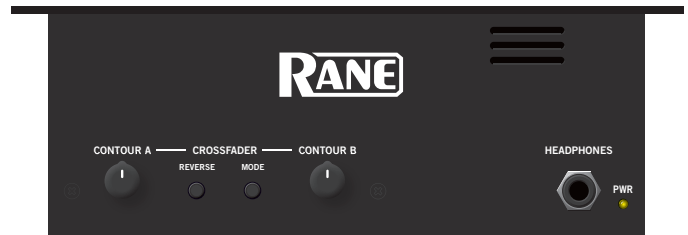
Rane’s proprietary FlexFx effects loop allows assigning *post-fader* Program 1, *post-fader* Program 2 or *both* to the effects loop. A Wet/Dry pan control gives the user total control of how much processed signal is in the mix. With the effects loop *post-fader*, reverb and other delay effects respond to both Channel Fader and Crossfader operation.

Stereo Metering

The TTM 56 features two 10-segment meters with peak-hold. A source switch allows users to select dual-mono Cue *or* stereo Master operation. No need to stress over dropping a channel without knowing.



Top View



Front View

Auxiliary Input and Output (Session Mix)

A stereo Aux Input with a Level control provides input for a session mix, drum machine or other auxiliary input signal. The stereo Aux Output with Level control provides output for session mix, booth monitoring, recording or second zone.

3-Band Accelerated-Slope™ Full-Cut EQ

The TTM 56 provides 3-band, full cut tone controls for Program 1 and Program 2. EQ engage switches allow A/B comparison and the ability to quickly cut or add EQ effect.



Parameter	Specification	Conditions & Comments
Phono Inputs:	2 Stereo	Unbalanced RCA jacks
.....Response	RIAA	±1 dB
.....Gain	40 dB	1 kHz
.....Input Impedance	47.5 kΩ, 200 pF	
Line Inputs:	2 Stereo	Unbalanced RCA jacks
.....Input Impedance	20 kΩ	1 kHz
.....Gain	Off to +12 dB	1 kHz
.....Tone Control (EQ)	3-Band, Accelerated-Slope™	Full Cut, see figures on next page
Auxiliary Input:	1 stereo	Unbalanced RCA jacks
.....Input Impedance	20 kΩ	1 kHz
.....Gain	Off to +10 dB	1 kHz
FlexFX Return:	Stereo	Unbalanced ¼" TS (tip-sleeve) phone jack
.....Input Impedance	12 kΩ	Minimum
.....Gain	Unity	1 kHz
Mic Input:	Active Balanced	Balanced ¼" TRS (tip-ring-sleeve) phone jack
.....Input Impedance	1022 Ω	511Ω, each leg to ground
.....Gain	50 dB	1 kHz, Master Out, max gain
.....Frequency Response	20 to 20 kHz	+0, -3 dB, max gain
.....CMMR	>40 dB	1 kHz, max gain
.....S/N	76 dB	Re +4 dBu, max gain, @ insert, 20 kHz BW
.....Tone Control	2-Band	See Figure on next page
.....Effects Insert Loop	¼" TRS, Tip=Send, Ring=Return	Unbalanced mono
Master Output:	Stereo balanced / unbalanced	¼" TRS phone / RCA jacks
.....Output Impedance	100 Ω balanced each leg	301Ω unbalanced
.....Gain	6 dB balanced	0 dB unbalanced
.....Frequency Response	10 Hz to 30 kHz	+0, -3 dB
.....THD+N	<0.05%	re +4 dBu, 20 to 20 kHz, 20 kHz BW
.....S/N (balanced output)	101 dB	re +4 dBu, 20 kHz BW, unity gain
	94 dB	re +4 dBu, 20 kHz BW, 12 dB gain
Auxiliary Output:	Stereo	Unbalanced RCA jacks
.....Output Impedance	301 Ω	
.....Gain	Off to +6 dB	
FlexFX Send:	Stereo	Unbalanced ¼" TS phone jack
.....Output Impedance	301 Ω	Unity Gain
General Specifications:		
.....Control Feed-through	-80 dB	re +4 dBu, all controls
.....Crosstalk	-70 dB	re +4 dBu, 1 kHz
.....Max. Current:	750 mA rms from remote supply	Rane model RS 1
Unit: Agency Listing		
.....120 VAC model	Class 2 Equipment	National Electrical Code
	UL	Exempt Class 2
	CSA	Exempt Class 2
.....230 VAC model	CE-EMC	EMC 89/336/EEC
	CE-Safety exempt	article 1, LV 73/23/EEC
Power Supply: Agency List		
.....120 VAC model	UL	File E88261
	CSA	File LR58948
.....230 VAC model	CE-EMC	EMC 89/336/EEC
	CE-Safety	LV 73/23/EEC
Unit: Size	3"H x 9"W x 13"D	(7.6 x 23 x 33 cm)
Shipping: Size	7.5" x 20" x 10.5"	(19 x 51 x 27 cm)
.....Weight	11 lb	(5 kg)

Note: All specifications are typical unless otherwise stated.

EQ Control Response

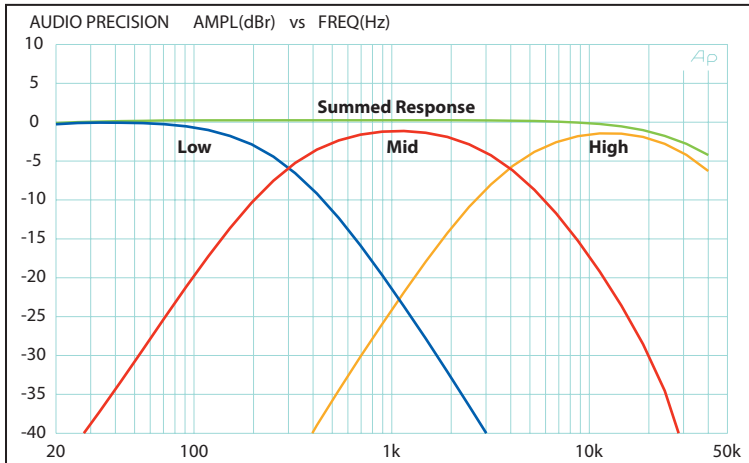


Figure 1 shows the three PGM EQ filter bands and the flat summed response

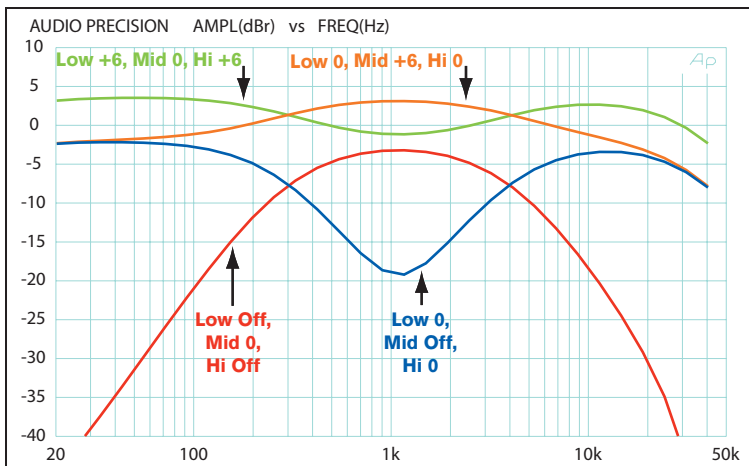


Figure 2 shows the interactive operation of the three PGM EQ controls

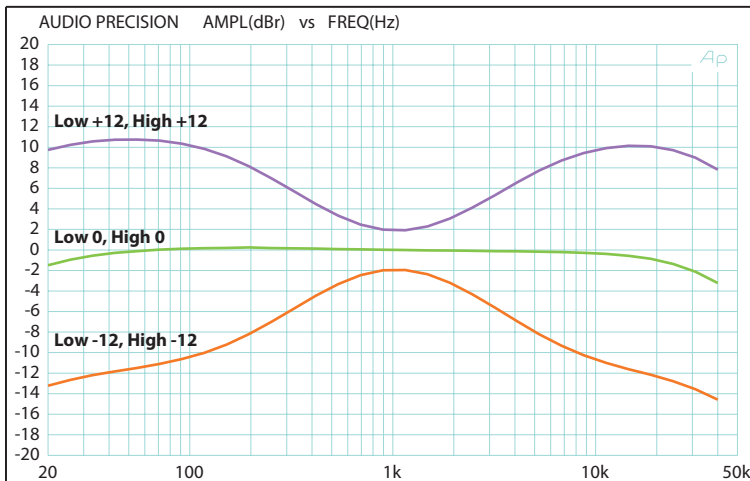
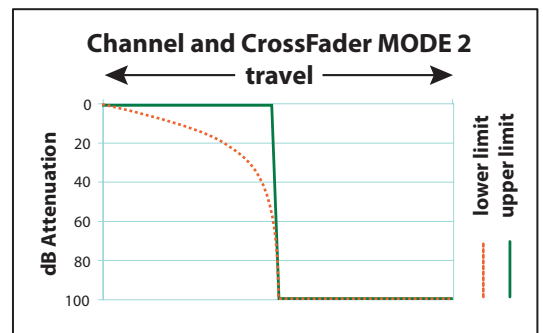
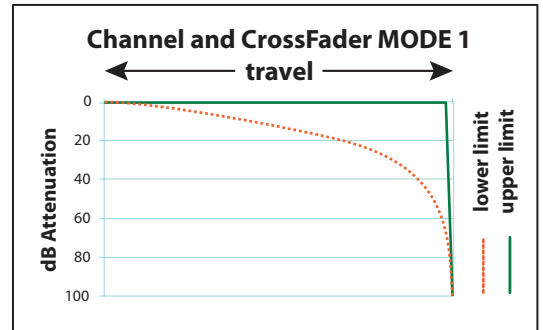


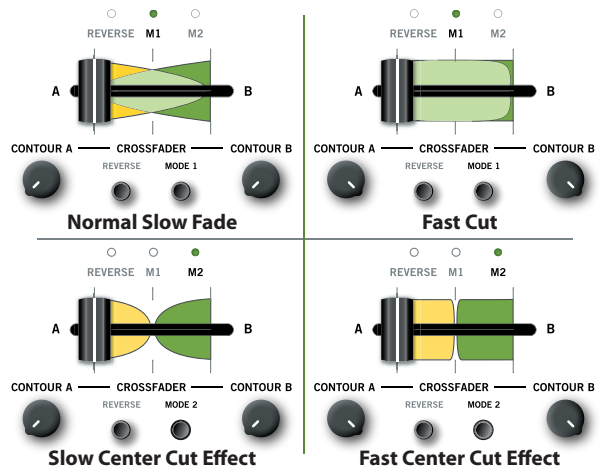
Figure 3 shows the combined response of the Mic tone controls

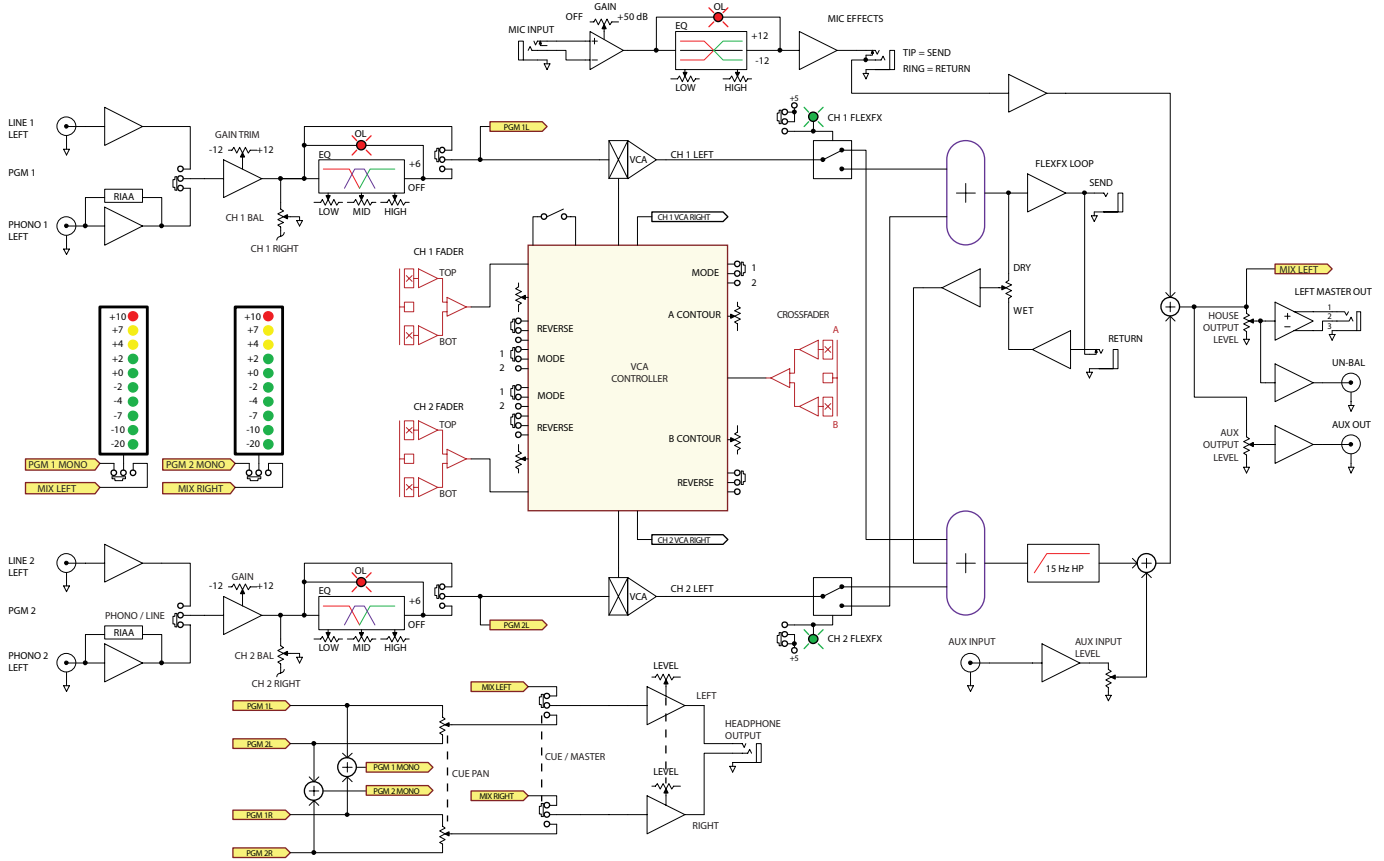
Fader Response

These graphs show curves representing upper and lower limits for gain response versus fader position. Contour controls allow smooth, continuous adjustment between the two responses.



MODE 1 acts like a regular volume or crossfader. MODE 2 acts like a stereo pan control, with the center position as off. With the Contour control set slow, moving the Crossfader right reduces the left channel to silence, gradually increasing the right channel volume at the other extreme. The MODE 2 graph shows the response of the left program channel. The right channel is a mirror image. Both can also use the Reverse switches. See the TTM 56 Manual for illustrations of these combinations of effects, downloadable from www.rane.com/ttm56.html.





Features and Configuration

- Non-contact magnetic program faders and crossfader.
- Continuously adjustable Contour adjustments for all faders.
- **Program 1** and **Program 2** Input Buses with:
 - Phono and Line input with Transform switch.
 - Input Gain control.
 - 3-band Accelerated-Slope™, full cut (+6 dB to off) EQ.
 - FlexFX™ effects loop assignment with Wet / Dry control.
- Auxiliary (session mix) Input / Output with Level controls.
- Balanced Mic input with Level control with:
 - 2-band EQ and independent Effects Loop.
- Independent Balanced and unbalanced Master Outputs.
- Two 10-segment meters feature peak-hold with:
 - Source switch for dual-mono Cue or stereo Master.
- Headphone monitoring with:
 - Master / Cue select switch with Cue Pan control.
 - Powerful headphone amplifier with Level control.

Rear Panel



Optional Accessories

DJ Mixer Road Case and custom color panels are also available. See the Performance Mixer Accessories Data Sheet for details