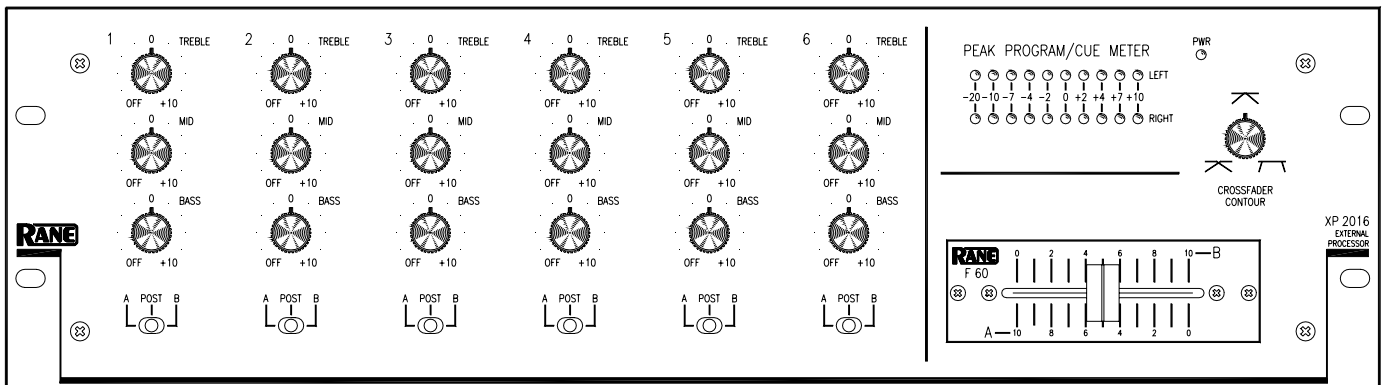


MP 2016 Mixer



Optional XP 2016 Processor

MP 2016 Features

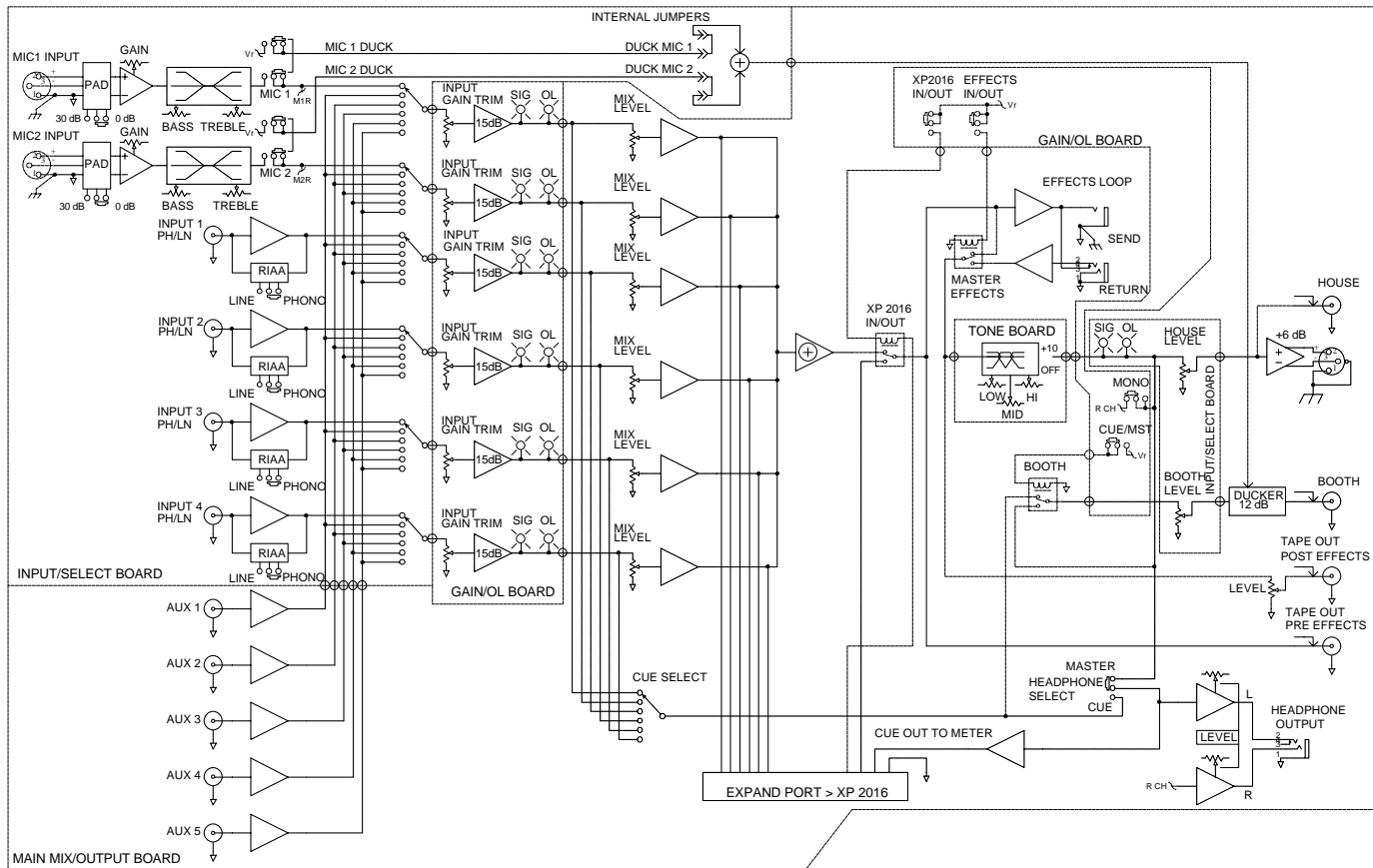
- Six Stereo Input Channels
- Four Dedicated Stereo Phono/Line Pre-amps
- Two Dedicated Mic/Line Pre-amps with...
 - Gain Trim - Two Band Tone Control
 - Engage Switch - Booth Ducking
- Five stereo Auxiliary Inputs
- Input Gain Controls for Level Matching
- 40 mm Master and Mix Controls
- Switchable Effects Loop
- Mono Switch

- Booth Output with Master/Cue Source Select
- Pre-Effects Tape Output
- Post-Effects Tape Output with Level Control
- *Accelerated-Slope™*, Full-Cut, 3-Band Tone Controls
- High Power Headphone Monitor with Master/Cue Source Select

Optional XP 2016 Features

- *Active-Crossfader™* with Full Range Contour Control
- A-POST-B Crossfader Assign Switches
- Stereo Master/Cue Meter with Peak Hold
- Six Channels of Stereo, *Accelerated-Slope™*, Full Cut, 3-Band Tone Controls.

MP 2016 Block Diagram



MP 2016 General Description

For almost a decade, professional DJs have been waiting for a quality rotary mixer. If you yell loud enough and long enough, someone will listen. Rane proudly presents the MP 2016 Rotary Mixer.

The MP 2016 is a rotary-controlled mixer featuring six Input Channels, Booth and House Outputs, Pre-Effects Tape Outputs, Post-Effects Tape Outputs with Level control, switchable Effects Loop, and Headphone Cueing. Input Channels 1 through 4 feature high quality RIAA phono preamplifiers which may be switched to line input via rear panel switches. Input Channels 5 and 6 each provide a balanced mic preamp with Input Gain trim, Mic/Line switch, two-band EQ, Mic Engage switch and an internal Booth Ducking enable jumper. In addition to the six dedicated

preamplifiers, all six Input Channels may select any of the five stereo Auxiliary Inputs.

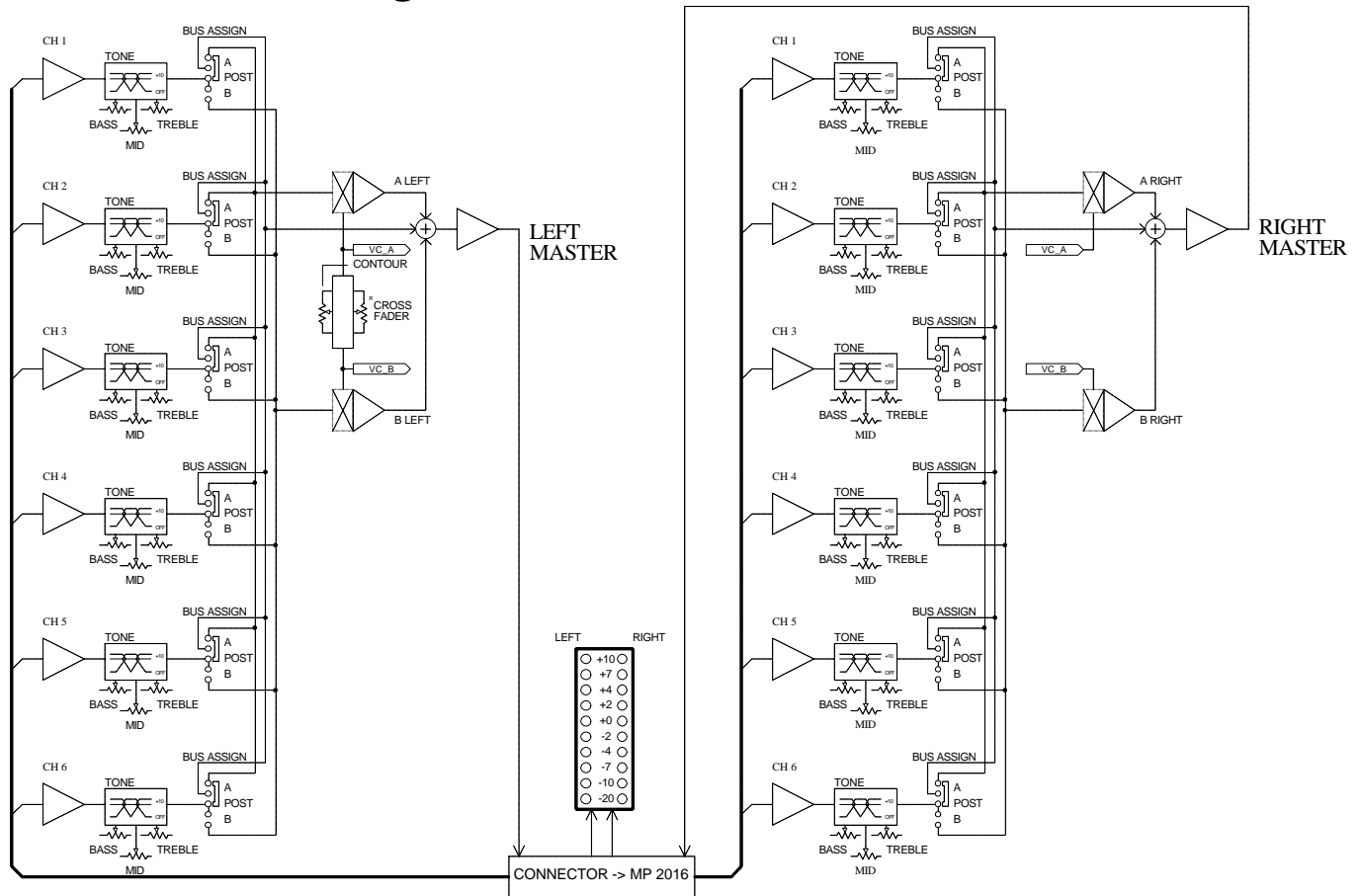
Each Input Channel provides a six-position source selector, Input Gain control for matching levels, Signal/Overload indicators and a studio-grade Master Mix control.

The Booth Output may select Master or Cue as its source. An ultra-low noise, high power headphone amplifier also allows monitoring the Master Mix or Cue Mix.

The Master Mix circuit provides Signal/Overload indicators, Mono switch and high-pass/rumble filters. In addition, the MP 2016 features patent pending high performance three-band, full-cut, *Accelerated-Slope™* tone controls.

The MP 2016 provides exceptional ergonomics, good feel and a clean, intuitive layout packaged in a compact 19 inch, 3U rack mount chassis, a scant five inches deep.

XP 2016 Block Diagram



XP 2016 General Description

So you say... “Great, but to accommodate the diverse needs of all DJ mixing styles, I need dedicated high performance three-band, full-cut, *Accelerated-Slope™* tone controls for *each* of the six Input Channels, high-performance *Active-Crossfader™* with full range contour control, A-Post-B crossfader assign switches and a stereo, 10 segment, peak dBu Master/Cue meter with peak hold; all without effecting the ergonomics of my classic rotary mixer.”

We've got you covered! With the flip of a switch on the MP 2016 front panel, you can engage the *optional* XP 2016 External Processor and acquire all of the features listed above. A single cable connects the XP 2016 to the MP 2016.

The XP 2016 is an *optional* external processor designed specifically for use with the MP 2016. The XP 2016 is intended to mount above or below the MP 2016. It connects with a single 10-inch ribbon cable and is engaged with the flip of a switch on the MP 2016 front panel. If an XP 2016 is not connected, the XP 2016 engage switch on the MP 2016 has no effect.

The XP 2016 provides dedicated *Accelerated-Slope™*, three-band, full-cut tone controls for *each* of the six stereo Input Channels, A-Post-B Crossfader Assign switches for all six Input Channels, a high-performance *Active-Crossfader™*

with full range Contour control, and a stereo 10-segment peak dBu Master/Cue Meter with peak hold.

The six stereo, post Mix Level signals in the MP 2016 are fed to the XP 2016. When the XP 2016 is *not* engaged, the post Mix Level signals go directly to the Master Mix in the MP 2016. When the XP 2016 *is* engaged, the stereo Master Mix comes from the XP 2016.

If all Input Channels on the XP 2016 are assigned Post-Crossfader, the Mix will be identical to the MP 2016 (with the addition of tone controls for each Input Channel). For Crossfader control, simply assign a Channel to the A or B side of the Crossfader.

The Master/Cue Meter follows the source selection of the headphone monitor on the MP 2016. If Master is selected, the XP 2016 Meter monitors the pre-house-level Master signal. If Cue is selected, the XP 2016 meter monitors Cue Source selection.

The *Active-Crossfader™* control is the same high performance design found on the TTM 54 Performance Mixers. It features full range CONTOUR control for smooth blending or ultra fast cuts.

The XP 2016 features excellent ergonomics packaged in a compact 19 inch, 3U rack mount chassis, five inches deep.



MP 2016 Features and Specifications

Parameter	Specification	Limit	Units	Conditions/Comments
Gain (Unbalanced Outputs): <i>1 kHz, EQ centered, All levels max, add 6 dB for balanced output</i>				
.....Phono/Line	51/15	0.5	dB	
.....Aux Line	15	0.5	dB	
.....Mic/Line	65/35	1.5	dB	
.....XP 2016 port	0	0.5	dB	
Input Impedance: <i>1 kHz</i>				
.....Phono/Line	47.5k	1%	ohms	Shunted by 200 pF
.....Aux Line	20k	1%	ohms	
.....Mic/Line	1.02k/29k	1%	ohms	Differential input impedance
.....Effects Return	5.11k	1%	ohms	
Max Input Level: <i>Max input before input stage overload, @ 1 kHz</i>				
.....Phono/Line	77.5	5%	mV	
.....Aux Line	+20	1	dBu	
.....Mic/Line, Max Gain	-30/0	2	dBu	
.....Mic/Line, Min Gain	0/+30	2	dBu	
Output Impedance: <i>@ 1 kHz</i>				
.....Balanced	150	1%	ohms	Each leg
.....Unbalanced	300	1%	ohms	
Max Output Levels: <i>@ 1 kHz</i>				
.....Balanced	+26	min.	dBu	2k ohm load
.....Unbalanced	+20	min.	dBu	2k ohm load
.....Headphone	150/120	min.	mW	600/150 ohms
Infrasonic Filter	15	5%	Hz	18 dB/octave
THD+N	.01	typ.	%	20 to 20 kHz, 80 kHz BW, Line in to unbalanced output.
Signal-to-Noise Ratio: <i>Input gain set for unity, Tones set flat; Any one mix set to max (all others min), any unbalanced out.</i>				
.....Phono	91	1	dBu	Input shorted, "A" weighted
.....Mic	60	1	dBu	Mic Gain max, Input Gain max, Input terminated with 150 ohms.
.....Line	94	1	dBu	Input terminated with 150 ohms.
Signal Indicators: SIG/OL	0/12	1	dBu	
Crosstalk	-70	max.	dB	Channel to channel, 1 kHz
Control Feed-through	-80	max.	dB	1 kHz
Master Tone Controls: Treble				
.....Mid	4k, Shelving	5%	Hz	2nd order, range +10 dB to full kill
.....Bass	300 to 4k, Band-pass	5%	Hz	2nd order, range +10 dB to full kill
.....Bass	300, Shelving	5%	Hz	2nd order, range +10 dB to full kill
Microphone Tone Controls:				
.....Bass	100, Shelving	5%	Hz	Range ±12 dB
.....Treble	5k, Shelving	5%	Hz	Range ±12 dB
<i>Note: 0 dBu=0.775 Vrms</i>				

XP 2016 Features and Specifications

Parameter	Specification	Limit	Units	Conditions/Comments
Gain	0	1	dB	1 kHz, tone flat,
Input Impedance...	20k	1%	ohms	1 kHz
Max Input Level...	+20	min	dBu	Max before input stage overload @ 1 kHz
Output Impedance...	100	1%	ohms	@ 1 kHz
Max Output Levels...	+20	min	dBu	@ 1 kHz
THD+N: Post Crossfader	.01	typ	%	20 to 20 kHz, 80 kHz BW
.....Crossfader	.1	typ	%	20 to 20 kHz, 80 kHz BW
Noise	-82	1	dBu	Tones set flat
Meters: Type	Peak dBu			Follows MP 2016 headphone source
Crossfader: Type	Active with Contour control			
Crosstalk	-70	max	dBu	Channel to channel, 1 kHz
Control Feed-through	-80	max	dB	1 kHz
Tone Controls: Treble	4k, Shelving	5%	Hz	2nd-order, range +10 dB to full kill
.....Mid	300 to 4k, Band-pass	5%	Hz	2nd-order, range +10 dB to full kill
.....Bass	300, Shelving	5%	Hz	2nd-order, range +10 dB to full kill
<i>Note: 0 dBu=0.775 Vrms</i>				

Agency, Power and Shipping Specifications

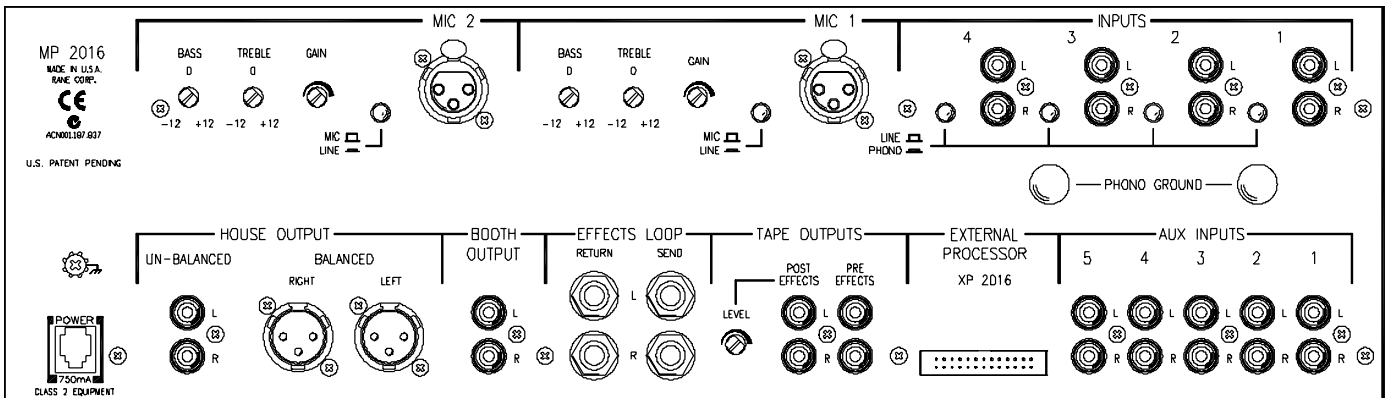
Parameter	Specification	Limit	Units	Conditions/Comments
Unit: Agency Listing				
.....120 VAC model	Class 2 Equipment			National Electrical Code
	UL, CSA			Exempt, Class 2
.....230 VAC model	VDE, SELV			Safety extra low voltage
	CE (EMC)			EMC directive 89/336/EEC
	CE (safety) Exempt			Article 1 of LVD 73/23/EEC
Power Supply: Agency Listing				Class 2 equipment
.....120 VAC model	UL listed			File no. E88261
	CSA Certified			File no. LR58948
.....230 VAC model	CE (EMC)			Meets EMC directive 89/336/EEC
	CE (safety)			LV directive 73/23/EEC
Power Supply Requirement	18 VAC w/ center tap			RS 1
Maximum Current	750		mA	RMS current from remote supply
Unit Construction	All Steel			
.....Size	5.25"H x 19"W x 5.3"D (3U)			(13.3 cm x 48.3 cm x 13.5 cm)
.....Weight	11 lb			(5.0 kg) Each Unit
Shipping: Size	11" x 23" x 16"			(27.9 cm x 58.4 cm x 40.6 cm)
.....Weight	18 lb			(8.1 kg) Each Unit

MP 2016 & XP 2016

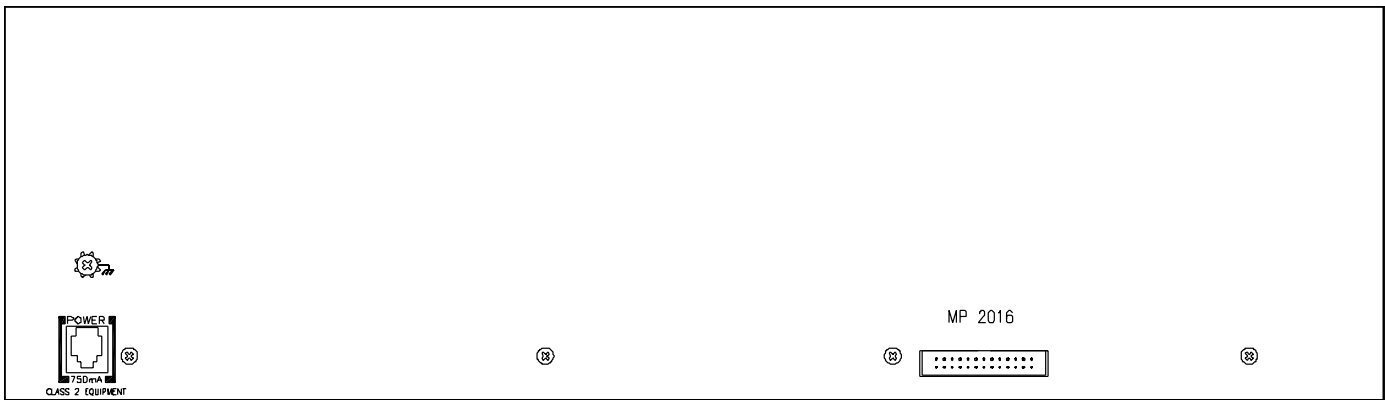
ROTARY MIXER & PROCESSOR



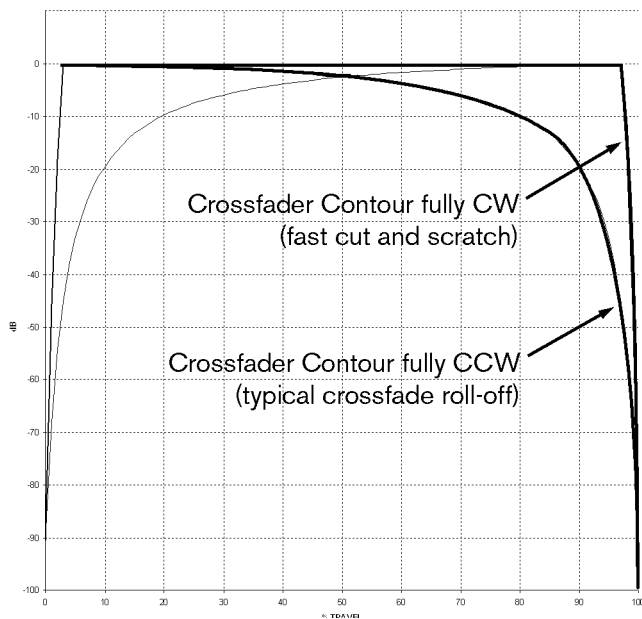
MP 2016 Rear Panel



XP 2016 Rear Panel



PGM 1 Crossfade Contour Control PGM 2



Accessories

- F 45 Fader Kit - 45 mm Crossfader Replacement
- F 60 Fader Kit - 60 mm Crossfader Replacement

XP 2016 Crossfader Contour

Accelerated-Slope and Active Crossfader are trademarks of Rane Corporation