MAP 33 Midi/Programmable Acoustic Instrument Preamplifier

Rane's renowned signal processing and digital expertise have combined to create a quantum breakthrough in acoustic instrument amplification. The MAP 33 effectively preserves complex acoustic timbre through a unique system that processes two different pickups separately with an impressive arsenal of programmable functions. Now acoustic instruments can at last share the forefront along with electric instruments live on stage, with full acoustic timbre, powerful volume, sustain, and minimum feedback.

3 SEPARATE STEREO ¼" DUAL-PICKUP INSTRU-MENT INPUTS: Select between three separate instruments, already plugged in and pre-programmed to optimum sound quality and volume.

BOTH MIC AND PIEZO PICKUPS FOR EACH INSTRUMENT: Only both type of pickups, with separate programmable 7-band equalization, filtering and balance, can enable the kind of accurate, full-bodied acoustic sound the MAP 33 can deliver, with both timbre and sustain reproduced without incapacitating feedback. You can easily configure the MAP 33 for phantom power on either the tip or ring of the ¼" jack depending on the requirements of your instrument's particular set-up.

ADDITIONAL VOCAL MIC AND STEREO LINE INPUTS allow you to use the MAP 33 as a compact solo-act processor. You can plug in your favorite vocal mic, cue up a background cassette tape or a drum machine, and the MAP 33 will handle it all. You even get a separate programmable 7-band equalizer for the vocal mic, plus an effects loop for sweetening.

SEPARATE PROGRAMMABLE MONITOR OUT-PUT features its own 7-band equalizer, invert switch, and independent mix of vocal, instrument pickup and line levels: all programmable! The result: superb stage monitor sound quality and balance, with dramatically reduced feedback—a revolutionary phenomenon for the acoustic musician!

A FULL COMPLEMENT OF INPUTS, OUTPUTS AND INSERT LOOPS on the rear panel allow flexible use of foot controllers, reverb and effects, auxiliary sends and much more. Turn the page for a look at the rear panel, block diagram and basic functions of the powerful MAP 33.

64 SEPARATE MEMORY SETTINGS OF THE ENTIRE MAP 33 CONFIGURATION: Once you have fine-tuned all of the filters and levels and options for the instrument you've chosen, simply save the configuration into permanent memory. The MAP 33 will memorize 64 different set-ups, which can be instantly recalled via the front panel, foot-switch, or MIDI program change command. You can even have two programs for the same instrument: one for rhythm and one for lead, and change back and forth while playing.

EXTREMELY USER-FRIENDLY DESIGN. Exhaustive design effort went into giving the MAP 33 unprecedented operational ease—a real accomplishment given all of the MAP 33's sophisticated capabilities. You can design your own User's Menu, to allow you to quickly access those functions you'll be using on stage. Separate LCD and LED displays clearly show you memory location and the various menu parameters. The data wheel gives you quick and natural response.

POWERFUL BUILT-IN SOFTWARE: The MAP 33 even has a built-in set-up procedure to get you up and running without getting buried in an owner's manual (and by the way, the MAP 33 does come with a darn good owner's manual). A dedicated Help button provides instant explanation of whatever function you're working with.

BUILT-IN HEADPHONE OUTPUT allows you to monitor either the Main output or the Monitor output, depending on your requirements. The MAP 33 is as comfortable in the recording studio as it is on stage.

RC 6 REMOTE CONTROLLER option is available, a compact mic-stand mountable box which plugs into the rear of the MAP 33 and allows direct control over six different functions. Simply reach down and twist a knob to instantly control volumes, balance, EQ, or other selected functions—without having to turn around and punch front panel buttons.

AP 13 ACOUSTIC PREAMP is also available, a compact non-programmable version of the MAP 33 which provides separate dual-pickup processing for accurate sound reproduction of a single instrument. Ask your local Rane dealer for more information on the AP 13.

Parameter	Specification	Limit	Units	Conditions/Comments
Frequency Response	30-24kHz	+0/-3	dB	
THD+Noise	0.15	.05	%	+4dBu, 30-24kHz, Any Out
Signal-to-Noise Ratio	88 (re +4dBu, 20kHz BW)	2	dB	Unity—PU gains @ 50%, Vocal=40dB
Phantom Power Voltages				
.........Instrument Mic Pickup	+6 or +15	5%	VDC	
.........Vocal Mic	+48	4%	VDC	Per DIN 45596 & IEC 268-15
Input Impedances				
.........Instrument Mic Pickup	20k (1.8k w/Phantom Power)	1%	Ohms	
.........Instrument PZO Pickup	5 Meg	Min	Ohms	1kHz
.........Vocal Mic	1.74k	1%	Ohms	
.........Aux Instrument	100k	1%	Ohms	
.........All Others	20k	1%	Ohms	Line, Returns & Expands
Maximum Input Levels				
.........Instrument Pickups	+12	1	dBu	(3.09Vrms)
.........Vocal Mic	+10	1	dBu	(2.45Vrms)
.........Aux Instrument	+20	1	dBu	(7.75Vrms)
.........Vocal Returns	+12	1	dBu	(3.09Vrms)
.........All Others	+22	1	dBu	(9.76Vrms)
7-Band Equalizer Sections				
.........Center Frequencies	40/100/250/630/1.6k/4k/10k	3%	Hz	
.........Bandwidth	2.0	3%	Oct	
.........Boost/Cut Range	+12/-15	1	dB	1dB Steps
Notch Filter Sections				
.........Frequency Range	100-5.6k	10%	Hz	1/6 Octave Steps
.........Bandwidth	0.5	3%	Oct	-3dB points from baseline
.........Depth	-18	Min	dB	
Low Filter Sections				
.........Corner Frequency Range	25-200	10%	Hz	25 Hz Steps
.........Slope	12dB/octave			
Noise Gate				
.........Threshold Range	Off, -80, -10	5	dB	1 dB Steps
.........Hold + Release Time	Shipped with Min Delay	10%	Sec	Internally Adjustable 5ms-5sec
.........Depth	-25		dB	Fixed
Maximum Available Gain				Input to Main Output (Line-level)
.........Instrument Pickups	86	2	dB	
.........Vocal Mic	105	2	dB	
.........Aux Instrument	76	2	dB	
.........Line Inputs	22	2	dB	
Output Impedances				
.........Main Line-level	50	1%	Ohms	Balanced
.........Main Mic-level	100	1%	Ohms	Balanced
.........All Others	100	1%	Ohms	Unbalanced
Maximum Output Levels				
.........Main Line-level	+22	1	dBu	Balanced into 600 ohms
.........Main Mic-level	-20	1	dBu	Balanced into 1k ohms
.........All Others	+22	1	dBu	Unbalanced into 2k ohms
AC Line Voltage	100/120/230VAC, 50/60Hz	10%	VAC	External Line Voltage Switch
Maximum Power	40		W	
Unit: Size	3.5"H x 19"W x 8.5"D (2 U)			(8.9 cm x 48.3 cm x 21.6 cm)
.........Weight	12 lb			(5.4 kg)
Shipping: Size	7" x 22" x 13"			(18 cm x 56 cm x 33 cm)
.........Weight	15 lb			(6.8 kg)

MAP 33

RANE Professional Audio Products Data Sheet

Block Diagram
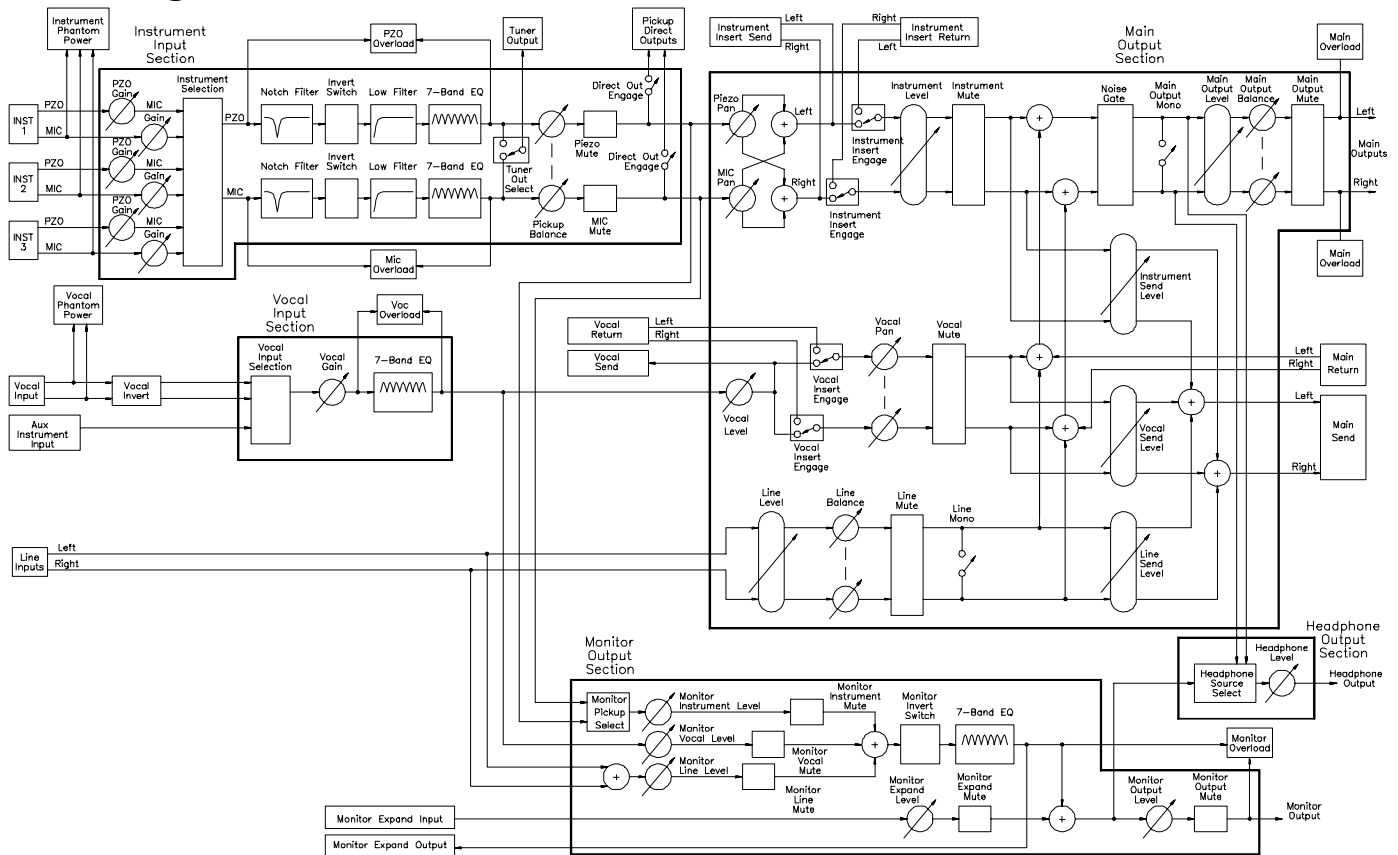
ABBREVIATED LIST OF FEATURES

THREE INSTRUMENT INPUTS:
- Each accepts 2 pickups: piezo & internal mic, magnetic & mic, piezo & magnetic, 2 magnetics, etc.
- Built-in switchable Phantom Power for electret mic

SEPARATE PROCESSING FOR EACH PICKUP:
- Sweepable Notch filter
- Invert switch
- Low filter (low-end roll-off)
- Direct Out jack
- 7-band equalizer
- Tuner Output jack: select piezo or mic
- Balance, Pan and Level controls
- Stereo inserts for mic and pickup

SEPARATE VOCAL MIC INPUT WITH:
- 48V Phantom Power
- Dedicated 7-band equalizer
- Switchable Insert loop
- Level, Pan and Mute controls
- Switchable to Aux Instrument mode

STEREO LINE INPUTS:
- For tape, drum machine or another mixer
- Level, Balance, Mute and Mono controls
- Separate Send control

MAIN OUTPUT SECTION WITH:
- Stereo Noise Gate
- Mono, Level, Balance and Mute controls
- Main Send and Return
- L & R Three-pin (XLR) mic-level outputs
- L & R ¼" TRS line level outputs

MONITOR SECTION WITH:
- Separate mix of pickups, vocal and line
- Mute, Invert and Level controls
- Dedicated 7-band equalizer
- Monitor Expand Input and Level control
- Separate Monitor Output jack

HEADPHONE OUT SECTION:
- Can be assigned to either Main Out or Monitor Out

FOOT ACCESSORY SECTION FOR:
- Muting selected sections
- Memory switching
- MIDI control change messages

RC 6 REMOTE CONTROL JACK:
- Accepts the optional RC 6 for instant control of six different user selectable parameters in the MAP 33

FULL MIDI CAPABILITY WITH:
- MIDI In/Out/Thru jacks
- Program Changes and Control Changes
- System Exclusive (SysEx) messages
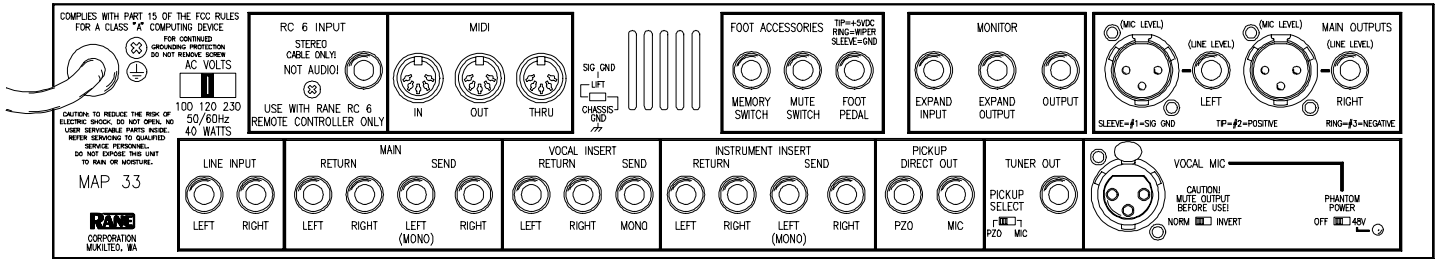- Mapping and data dumping

64 MEMORY LOCATIONS:
- Stores entire MAP 33 configuration in presets
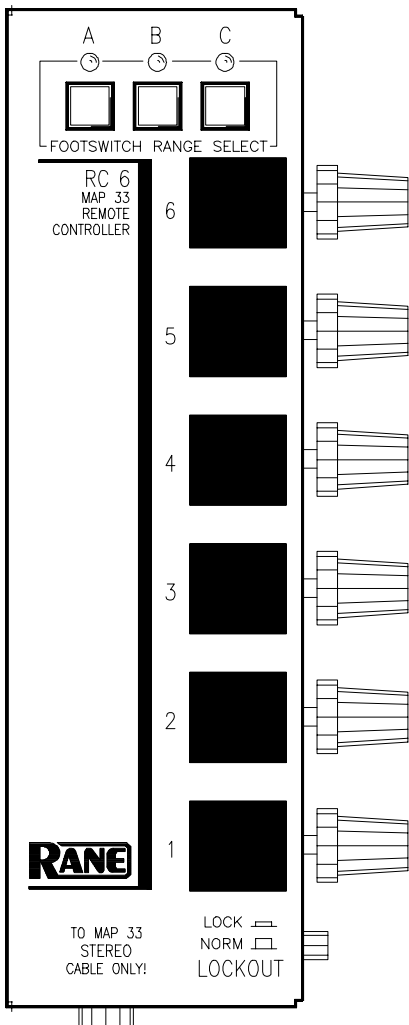
BUILT-IN DETAILED ON LINE HELP.

MAP 33
MIDI ACOUSTIC PREAMPLIFER

Professional Audio Products Data Sheet

Rear Panel

Available Accessories

RC 6 Remote Controller (not included)

The RC 6 controls any six parameters inside the MAP 33. The RC 6 is designed to mount to any mic stand, vertically or horizontally.

Connections

The RC 6 connects to the MAP 33 via a standard stereo ¼" TRS (Tip-Ring-Sleeve) cable. Connect this cable between the jack on the bottom of the RC 6 and the RC 6 Input jack on the rear of the MAP 33.

RC 6 Controls

Data Dials

The RC 6 provides six Data dials, numbered 1-6. Data dial 1 controls the first parameter in the MAP 33 User menu, Data dial 2 controls the second User menu parameter, and so on. To assign MAP 33 parameters to the RC 6 Data dials, you simply paste the desired parameters into the first six positions in the User menu.

Footswitch Range Select Buttons

The RC 6 provides three buttons and LEDs labeled A, B, and C. These controls correspond to the three Memory Foot Switch ranges, assigned on page 2 of the MAP 33 Foot menu. Pressing the A, B, or C buttons assigns a range to the MAP 33's external Memory Switch. The LEDs indicate which range is active.

Tip: If the starting program in each memory range is assigned to a different instrument, these switches can function as an instrument select.

Lockout Switch

The Lockout switch enables/disables the RC 6 when in the Norm/Lock position, respectively.

RC 6 vs. MIDI

RC 6 commands are sent as MIDI SysEx messages to the MAP 33. If you send RC 6 commands and MIDI commands into the MAP 33 simultaneously, they will conflict. Therefore, do not connect an RC 6 to the RC 6 Input and a MIDI device to the MIDI IN simultaneously, you must choose one. On Page 1 of the MIDI menu you must enable SysEx for in or in&out for the MAP 33 to receive RC 6 commands.

Mounting the RC 6

The RC 6 clamps to any mic stand, vertically or horizontally. If you wish to rotate the RC 6 clamp, remove the two #6 screws, rotate the clamp, and reattach.