

# ROCKMAN

INSTRUMENT EQUALIZER

OPERATING MANUAL





## TABLE OF CONTENTS

	Page
<b>Front Panel Overview</b> .....	2
<b>General Operating Instructions</b> .....	3
<b>In/Out Connections</b> .....	4-5
<b>Signal Path Diagram</b> .....	6-7
<b>Detailed Function Descriptions</b> .....	8-11
Preamp Controls .....	8
Equalizer Sliders .....	9
Output .....	10
Footswitching .....	11
<b>Applications</b> .....	12
<b>Specifications</b> .....	13

## Front Panel Overview

**INPUT CLIP:** LED monitors pre-amp input levels. With proper setting of the DRIVE LEVEL button this LED should light infrequently.

**BASS BAND:** sliders control the low end of the frequency spectrum at 62, 125 and 250Hz.

**MID BAND:** sliders control the critical midrange frequencies at 500, 700, 1k, 1.4k, 2k, 2.8k, and 4k Hz.

**TREBLE BAND:** sliders control the top end frequencies at 8k and 16k Hz.

**OUTPUT CLIP:** LED monitors power-on and overload status. Continuous illumination indicates power-on. Blinking LED indicates output stage overload.

**VOLUME:** slider controls overall output level adjustment.

**DRIVE LEVEL:** button provides optimum operating level for internal circuitry to minimize both distortion and background noise. The NORMAL (out) position accommodates most line level signals, while HOT (in) position accepts most instrument levels.

**POWER CAUTION:** Turn INSTRUMENT EQUALIZER "ON" before amplifier. If OUTPUT CLIP LED is not lit, the unit is off.

**BYPASS:** button activates the bypass mode which is LED indicated. This button is disabled when a footswitch is inserted in the rear panel footswitch jack.

**Note:** Each EQ slider allows 12dB of cut and boost, and has a center point detent or click for accurate return to the "0" dB setting.

**ROCKMAN INSTRUMENT EQUALIZER**

SRD  
POWER / 1987 SRD

PRE-AMP INPUT CLIP DRIVE LEVEL HOT OUT NORMAL

BASS BAND 62 125 250

MID BAND 500 700 1K 1.4K 2K 2.8K 4K

TREBLE BAND 8K 16K

OUTPUT CLIP BYPASS VOLUME

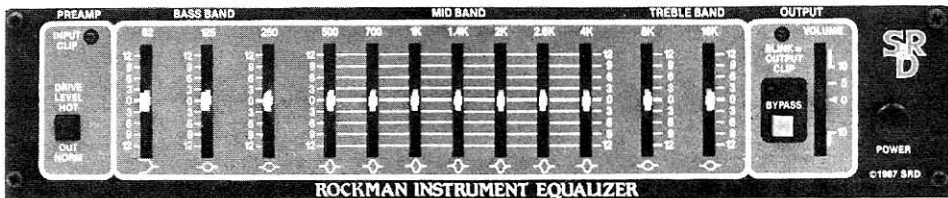


## General Operating Instructions

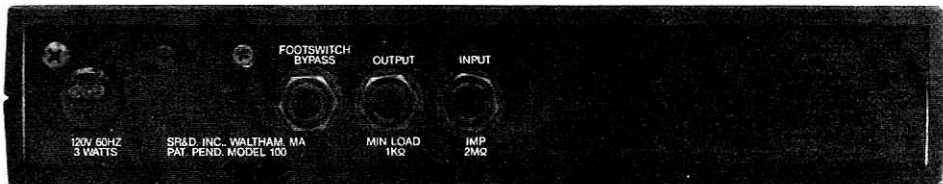
These General Operating Instructions will get you started using your ROCKMAN™ INSTRUMENT EQUALIZER right away. We urge you to read the rest of this manual soon, so that you will fully understand and be able to enjoy all the capabilities of this sophisticated signal processor.

1. Check that the INSTRUMENT EQUALIZER power switch is off (out), then connect the power cord to an AC outlet. (CAUTION: line voltage must match the voltage requirement printed on rear panel of the unit).
2. Connect the rear panel output jack to an amplifier, mixing board or effects loop return.
3. Plug in your instrument, sound source, or effects loop send into the rear panel input.
4. Push the INSTRUMENT EQUALIZER power button ON before turning on your amplifier to avoid power up transients from reaching your speakers.
5. Set the DRIVE LEVEL button for input source level OUT for line level signals; IN for most instrument levels.
6. Adjust EQ Sliders for effect desired, and balance output level with OUTPUT VOLUME slider.

To activate FOOTSWITCH BYPASS feature, use the ROCKMAN FOOTSWITCH or any push on-push off footswitch.

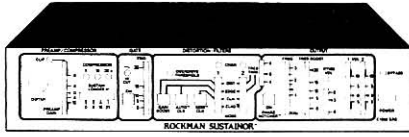


FRONT PANEL

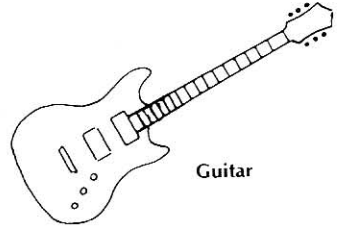


REAR PANEL

# In/Out



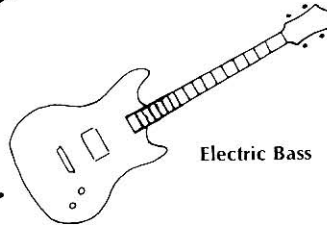
SUSTAINOR with Instrument Source



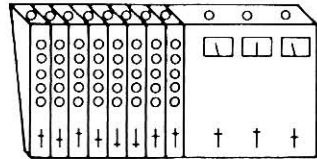
Guitar



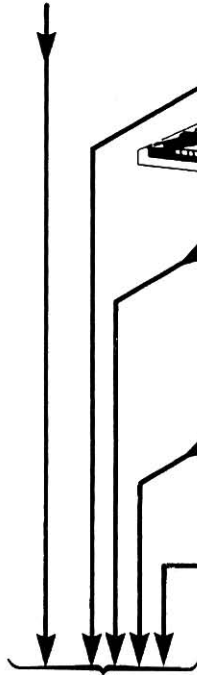
Synth, Electric Piano, Organ



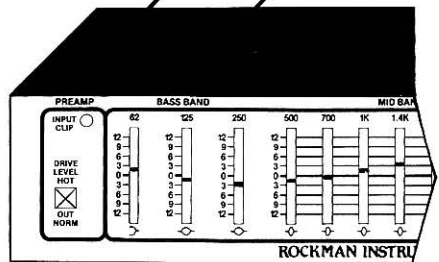
Electric Bass



Use Mixers effect send for easy selection of various instruments and recorded tracks

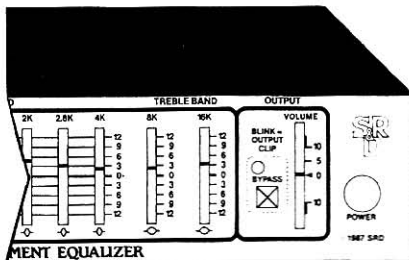
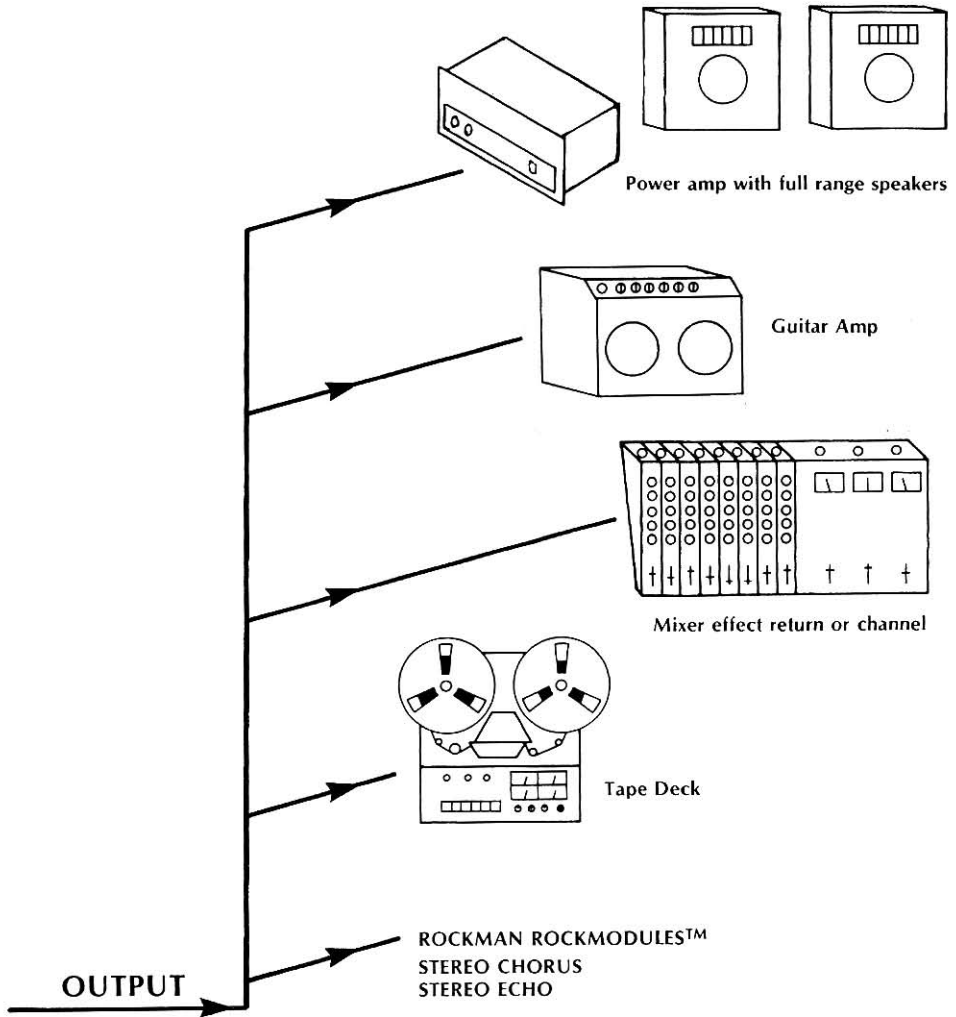


INPUT



ROCKMAN

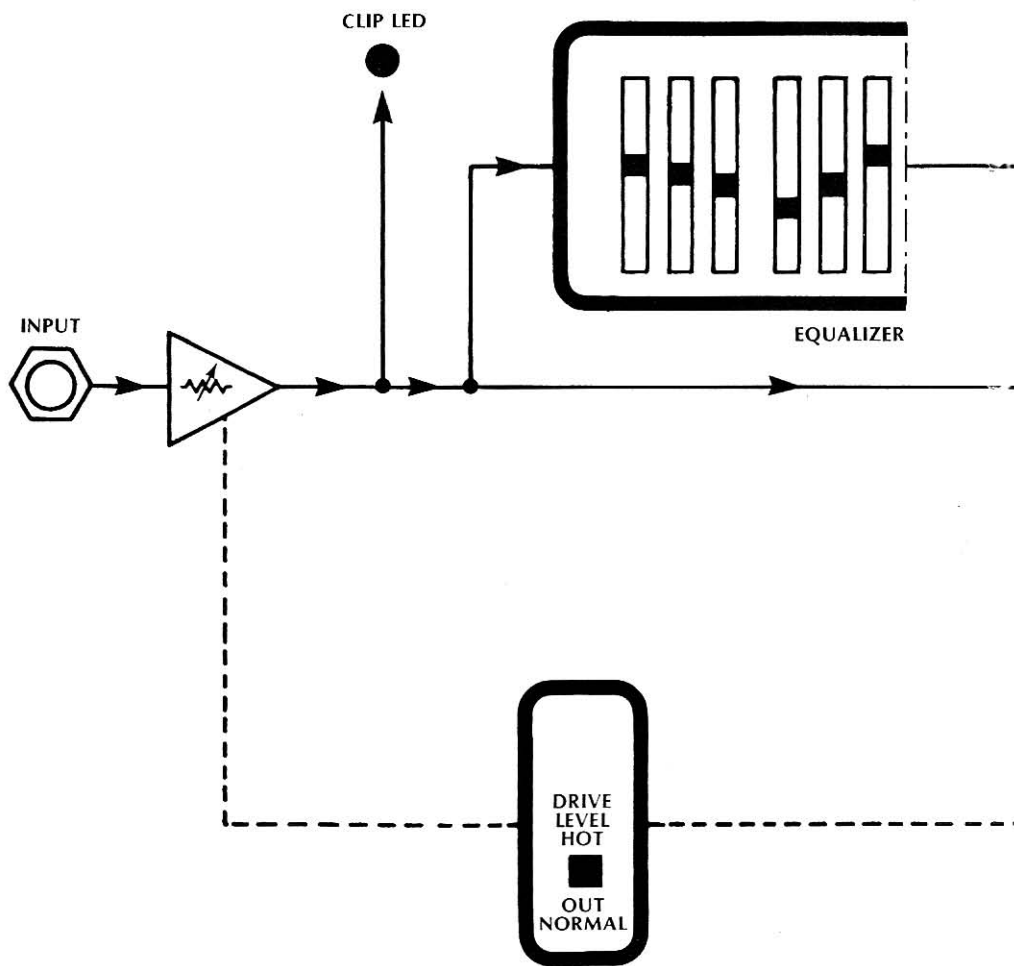
# Connections

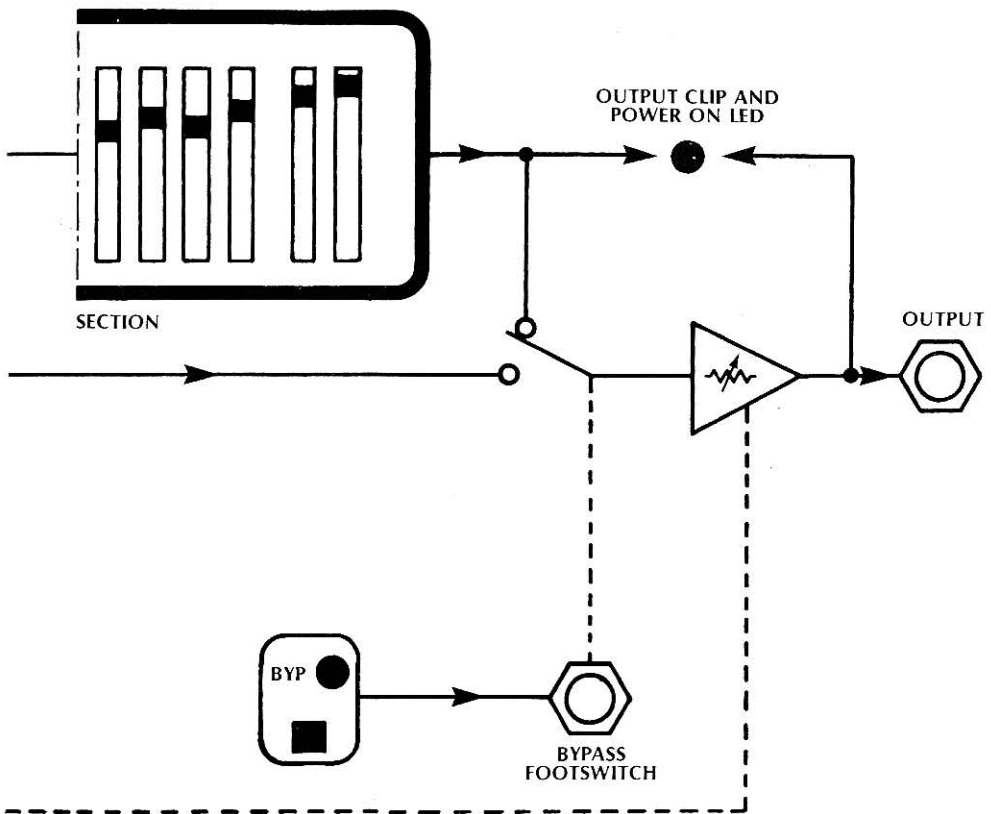


INSTRUMENT EQUALIZER



# Signal Path

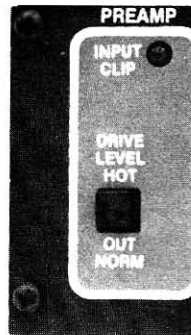








## Detailed Function Descriptions Preamp Controls



Use the DRIVE LEVEL button to match the INSTRUMENT EQUALIZER's internal gain to the audio signal you are providing. The best match will minimize both distortion and background noise.

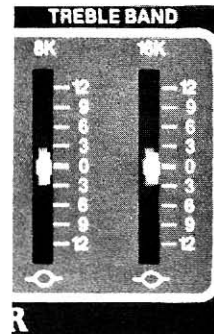
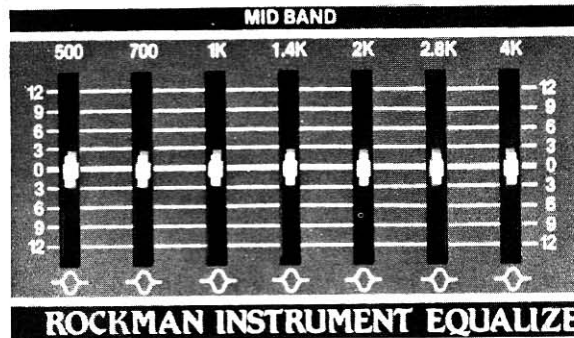
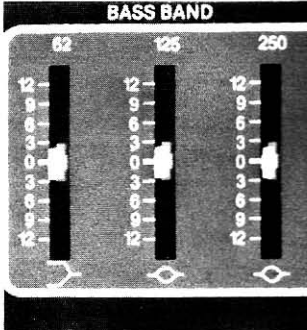
For a typical line level signal, the OUT or NORMAL DRIVE LEVEL button position is probably best. For most instruments, the HOT or IN position may be used.

The INPUT CLIP LED indicates the signal level is approaching overload. If the INPUT CLIP LED is ON often, change the DRIVE LEVEL button position.

NOTE: If the INPUT CLIP LED is lit often, even in the normal (out) position, the input signal level must be lowered at its source.

## Equalizer Sliders

The ROCKMAN INSTRUMENT EQUALIZER is unique in that most of the band sliders are centered in the mid-range frequencies where musical instruments require the most control. Seven of the twelve sliders cover the range from 500Hz to 4kHz. Three additional sliders control the bass frequencies at 62Hz, 125Hz, and 250Hz.



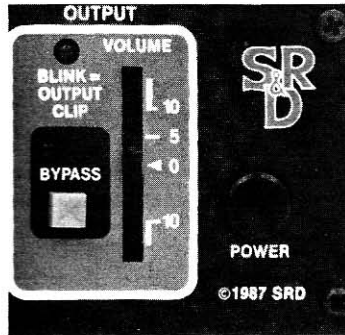
The remaining two sliders control the treble frequencies at 8kHz and 16kHz. All sliders offer a range of 12dB cut and boost and feature a center detent or click, for easy return to the "0" dB setting.



## Output

The OUTPUT VOLUME Slider offers +10 or –10dB of control range. Use the OUTPUT VOLUME slider to compensate for level changes caused by EQ slider settings, or to add extra overall cut or boost.

The BYPASS button allows manual deactivation of all EQ and volume settings. This button is disabled when a footswitch is inserted in the rear panel footswitch jack. BYPASS mode is LED indicated. This bypass feature allows for special effects and lead boosts to be preset and switched in and out as required. The BYPASS button may also be used to check for volume differences caused by EQ settings.



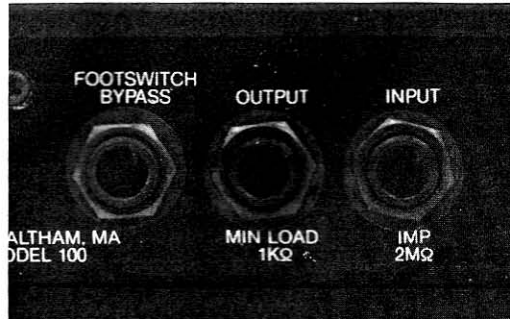
If several adjacent sliders on the INSTRUMENT EQUALIZER are in their maximum position, more than +12dB will result in that frequency range. Since the INSTRUMENT EQUALIZER is capable of 19dB boost with all sliders at the +12dB position, care must be taken not to overload the output stage amplifier.

The GREEN BLINK-OUTPUT CLIP LED has two functions. Continuous illumination indicates the unit is on; blinking LED shows output stage overload.

## Footswitching

The FOOTSWITCH BYPASS allows cancelling of all processing on the INSTRUMENT EQUALIZER. The audio signal still passes through a low noise unity gain buffer circuit, so power must be on for signal to flow.

The rear mounted 1/4" mono footswitch jack is designed to work with any push on-push off footswitch, or the ROCKMAN FOOTSWITCH.



## "Y" Cord Switching

One footswitch can perform more than one on-off function by splitting its control into two paths with a Y cord. By carefully choosing which functions to turn on and off simultaneously, you can greatly simplify the use of multiple ROCKMODULES™ in live performance situations. Any combination of ROCKMODULE footswitch functions can be "Y"ed together.

Use a Y cord that has a single female 1/4" mono jack splitting off to two 1/4" male mono plugs. The kind of cable used is not critical, as there is no audio signal passing through this circuit.



---

## Applications

Although it is versatile enough to fit virtually any audio application, the ROCKMAN INSTRUMENT EQUALIZER is especially useful when used with the ROCKMAN SUSTAINOR™ and DISTORTION GENERATOR. With it, you can tailor the sounds of these units to suit your individual style, instrument and sound system. The INSTRUMENT EQUALIZER should be connected after the SUSTAINOR or DISTORTION GENERATOR and before the STEREO CHORUS and STEREO ECHO for post-distortion EQ. For pre-distortion EQ, use SUSTAINOR EFFECTS loop.

The INSTRUMENT EQUALIZER contains passive noise reduction circuitry, making it quiet enough to be used as an in-line preamplification device before a high gain amplifier. Lead boosts and special tonal effects can be preset and footswitched in and out of the signal path.

- To add edge or presence to distortion guitar sounds, try boosting 4k and 8kHz a few dB, post-distortion.
- For nasal "out of phase" funk guitar sounds, experiment with boosting 125 and 4k and cutting 500Hz a little.
- Bass guitars sound great with 62 and 125Hz boosted, 250Hz cut out, 500Hz flat and a gentle slope boost from 700 to 4kHz.
- Imitate realistic horn sounds on keyboards by boosting 1k a few dB. For string patches, boost 2kHz. To achieve realistic organ sounds, gently roll off everything above 4kHz.
- To make drum machines come alive: boosting 62 and 125Hz and rolling off 250 a little will make kick drums sound fat and punchy. Boosting 2.8k will add snap to snare drum sounds. Cymbal and Hi-hat sounds sparkle when you boost 8k and 16kHz.

To mimic the response of full range speakers when using the ROCKMAN SUSTAINOR or DISTORTION GENERATOR with normal guitar speakers, boost 62 and 125Hz and 4k, 8k and 16kHz slightly, or simply reduce the Mid-range sliders.

Stereo effects can be obtained from a monaural signal by using two INSTRUMENT EQUALIZERS. Use a mono "Y" cord to split the input signal and connect each line to an INSTRUMENT EQUALIZER. Now set the EQ sliders on each so that the settings on one are exactly opposite to the other. Apply boosts and cuts alternately, if 500Hz is boosted on EQ A, cut 500Hz on EQ B, and so on. When the sound is played back through a stereo amp, the right and left channel tonal characteristics synthesize together to give a split, pseudo-stereo image.

## Specifications

<b>INPUT</b>	Impedance..... 2.2M $\Omega$ Maximum Level..... (normal) 6.5Vrms (+16dBv) Maximum Level..... (hot) 1.4Vrms (+3dBv)
<b>FREQUENCY RESPONSE:</b>	Sliders at "0": 20Hz $\pm$ .5dB
<b>FILTERING:</b>	$\pm$ 12dB bands at: 125, 250, 500, 1k, 1.4k, 2k, 2.8k, 4k, 8k, 16kHz $\pm$ 12dB shelf at 62Hz
<b>OUTPUT:</b>	Impedance..... 100 $\Omega$ Maximum Level..... (normal) 6.5Vrms (+16dBv) Maximum Level:..... (hot) 1.4Vrms (+3dBv)
<b>S/N RATIO:</b>	At maximum input level:.. -110dB, A weighted
<b>HARMONIC DISTORTION:</b>	Less than .03%
<b>DIMENSIONS:</b>	8 1/2"W, 5 1/2"D, 1 3/4"H. . . (Standard half-rack width)
<b>POWER REQUIREMENT:</b>	3-watts, line voltage, see rear panel
<b>ACCESSORIES:</b> Purchased Separately	19" ROCKMODULE RACKMOUNT (holds two units) ROCKMAN FOOTSWITCH

Specifications subject to change without prior notification.