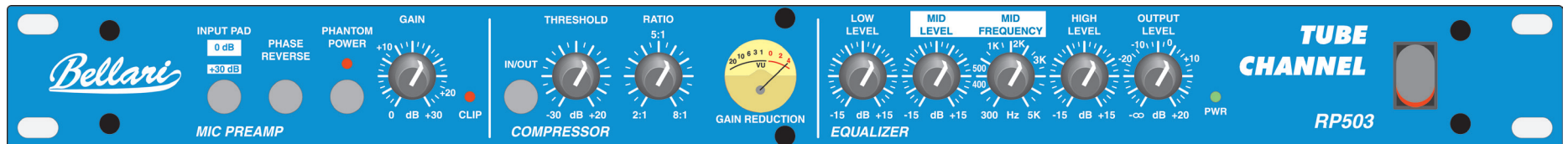
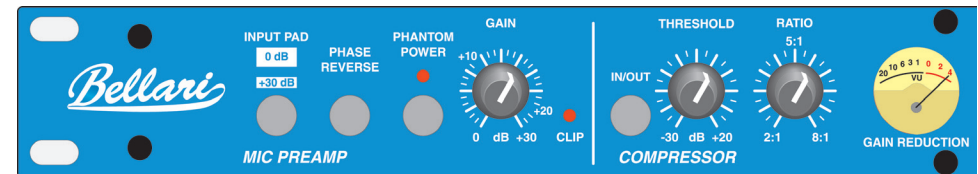


Bellari

RP503

TUBE CHANNEL

- Tube Mic Preamp
- Optical Compressor
- Equalizer



Bellari

ROLLS CORPORATION
SALT LAKE CITY, UTAH
7/01

OWNERS MANUAL

INTRODUCTION

Congratulations and thank you for purchasing the RP503 TUBE CHANNEL. We're confident this unit will provide you with years of smooth, warm mic pre-amplification and musical dynamics processing.

Please take a moment to read this manual as it provides all the information needed to properly and effectively operate your RP503.

FEATURES

- Warm tube mic preamp with +48 volt phantom power and CLIP indication
- Smooth and natural optical compression with VU gain reduction meter
- Side Chain I/O for detector circuit access
- Three-band EQ with sweepable mids

INSPECTION

1. Unpack and inspect the RP503 box and package.

If obvious physical damage is noticed, contact the carrier immediately to make a damage claim. We suggest saving the shipping carton and packing materials for safely transporting the unit in the future.

2. Please complete the Warranty Registration Card and return it to the factory.

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LIMITED WARRANTY

This product is warranted to the original consumer purchaser to be free from defects in materials and workmanship under normal installation, use and service for a period of one (1) year from the date of purchase as shown on the purchaser's receipt.

The obligation of Rolls Corporation under this warranty shall be limited to repair or replacement (at our option), during the warranty period of any part which proves defective in material or workmanship under normal installation, use and service, provided the product is returned to Rolls Corporation, TRANSPORTATION CHARGES PREPAID. Products returned to us or to an authorized Service Center must be accompanied by a copy of the purchase receipt. In the absence of such purchase receipt, the warranty period shall be one (1) year from the date of manufacture.

This warranty shall be invalid if the product is damaged as a result of defacement, misuse, abuse, neglect, accident, destruction or alteration of the serial number, improper electrical voltages or currents, repair, alteration or maintenance by any person or party other than our own service facility or an authorized Service Center, or any use violative of instructions furnished by us.

This one-year warranty is in lieu of all expressed warranties, obligations or liabilities. ANY IMPLIED WARRANTIES, OBLIGATIONS, OR LIABILITIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED IN DURATION TO THE ONE YEAR DURATION OF THIS WRITTEN LIMITED WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

IN NO EVENT SHALL WE BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, WHATSOEVER. Some states do not allow the exclusion or limitation of special, incidental or consequential damages so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

SPECIFICATIONS

Input Impedance:	600 Ohms balanced 50K Ohms unbalanced (1/4")
Output Impedance:	50 Ohms TRS Balanced
Max Input Level:	-15 dBV XLR 600 Ohms +18 dBV 1/4"
Max Gain:	+65 dB
Max Output Level:	+22 dB
Frequency Response	20Hz - 25kHz +/-3dB
THD + Noise	<0.1% typical
Noise Floor	- 75 dB
Equalizer Boost/Cut:	+/- 15 dB
Equalizer settings:	
Low shelf:	150 Hz
High shelf:	10 kHz
Mid frequencies:	300 Hz - 5 kHz, Q = 1
Compressor settings:	
Threshold:	-30 dB to +20 dB
Ratio:	2:1 to 8:1
Indicators	Phantom Power LED, Clip LED, Power LED Analog VU Meter
Input/Output jacks	XLR balanced 1/4" unbalanced 1/4" TRS unbal. Side Chain
Dimensions	1.75" x 6" x 19" (90mm X 162mm X 482mm)
Weight	3.5 lbs. (1.75 Kg)
Power	120VAC (230VAC) 15VA

DESCRIPTION

FRONT PANEL



Mic Preamp Controls

PAD: Sets the level of the XLR input only. When in, the mic preamp has +30 dB of gain, when out the preamp is padded to 0 dB of gain.

PHASE REVERSE: When pressed in, the output signal will be 180 degrees out of phase with the input signal.

PHANTOM POWER: When pressed in, and the LED above this switch is lit, +48 volts of phantom power is applied to the XLR Mic input.

GAIN: Controls the amount of gain in the tube mic preamp circuit. This control adds from 0 dB to +30 dB of gain.

CLIP: LED for indicating clipping or possible distortion in the mic preamp circuits.

Compressor controls

IN/OUT: Switch for engaging the compressor circuits. The compressor is active when the switch is in.

THRESHOLD: Sets the point that the input signal must reach for compression to begin.

RATIO: This control sets the signal to compression ratio. This ratio relates to the amount of increase of input compared to output signal. Thus, at a 1:1 ratio, a 1 dB increase of input signal will result in a 1 dB increase of output signal. At 2:1, a 2 dB increase of input signal will result in only 1 dB increase of output signal. At 8:1, an 8 dB increase of input signal will result in a 1dB increase of output signal.

GAIN REDUCTION: VU Meter indicating the amount of compression in dB.

NOTE: THIS METER DOES NOT INDICATE INPUT OR OUTPUT LEVEL.

Equalizer controls

LOW LEVEL: Adjusts level of low frequencies, from 20Hz to 150Hz.

MID LEVEL: Adjusts the level of mid frequencies, as selected by the MID FREQUENCY control. This sweepable filter has a Q or width of 1.

MID FREQUENCY: Selects the frequency to be boost/cut by the MID LEVEL control.

HIGH LEVEL: Adjusts the level of high frequencies, from 10kHz to 20kHz.

OUTPUT LEVEL: Adjusts the overall volume from the RP503 main outputs.

PWR LED: Indicates power is applied to the RP503.



REAR PANEL

120 VAC 50/60 Hz:

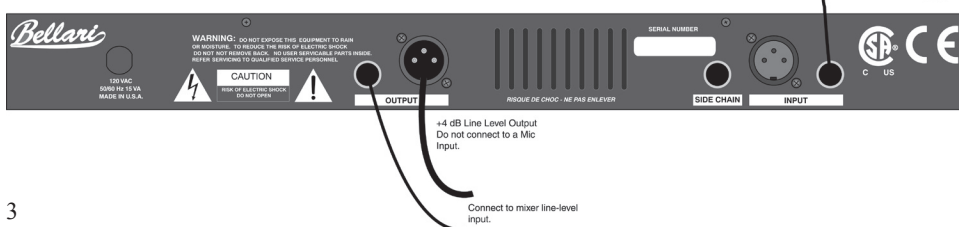
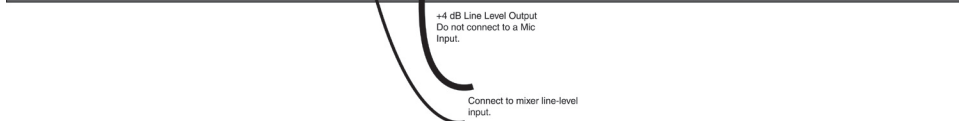
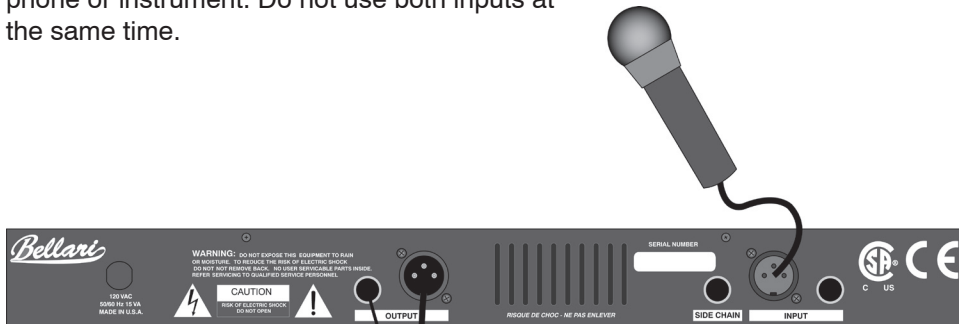
OUTPUT: 1/4" unbalanced and XLR balanced output. Connect to an audio recorder line input or mixer line input. Note: Do not connect the RP503 XLR Output to a mixer's Mic Input - it will overload that input.

SIDE CHAIN: 1/4" Tip-Ring-Sleeve Send/Return jack. Connect an Insert cable to this jack and to a signal processor or other device to alter the action of the RP503 compressor.

INPUT: Balanced XLR and unbalanced 1/4" Input jacks. Connect balanced microphones to the XLR input, and unbalanced instruments to the 1/4" input.

CONNECTION

Make sure the RP503 power cord is properly connected to a grounded AC outlet. Shown below are examples of how to connect the RP503 for use with a microphone or instrument. Do not use both inputs at the same time.



When the RP503 has been properly connected, ensure the power switch is on and the Power LED is lit.

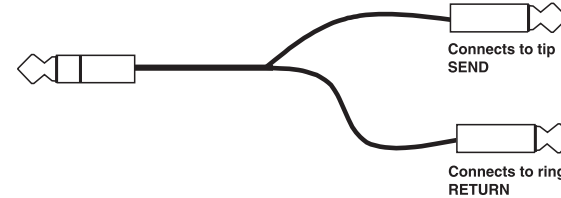
MIC PREAMP SETTINGS

For condenser microphones, press in the Phantom Power switch. Press the PAD switch in if you're sending a line level (+4dB) signal into the RP503. This helps prevent overload. Send a signal to the RP503 by checking the microphone or instrument connected to the INPUT. Adjust the GAIN control while sending the signal, when the CLIP led lights slightly, back the GAIN control off (counterclockwise) one or two marks to achieve the proper level of incoming signal.

COMPRESSOR SETTINGS

Press in the IN/OUT switch to engage the compressor. Begin by setting the THRESHOLD control high (around 3 o'clock) and the RATIO low (fully counterclockwise). This is a very low compression setting. To increase the amount of compression, lower the THRESHOLD and increase the RATIO until the desired amount is achieved.

USING THE SIDE CHAIN



To use the SIDE CHAIN to directly access the compressor circuitry, you'll need an Insert cable like the one shown above. The Tip-Ring-Sleeve stereo end plugs into the RP503 SIDE CHAIN jack. The 1/4" SEND plug connects to the Input of a signal processor such as an equalizer, the 1/4" RETURN plug connects to the signal processor Output. The signal in the SIDE CHAIN is not heard on the Output of the RP503, it only effects the action of the compressor. The higher the level of signal in the SIDE CHAIN, the more compression will occur.

EQUALIZER SETTINGS

Begin with all controls set at 0 or center detente position. This is the equivalent of a "bypass". Adjusting the LEVEL controls will increase or decrease the amount of the indicated frequency range. The MID FREQUENCY control adjusts the actual frequency that the MID LEVEL control will adjust.

USING THE PROCESSES TOGETHER

Increasing the Mic Preamp GAIN settings to the point where slight distortion occurs will effect the overall frequency content of the output signal. EQ adjustments may need to be made.

Experiment with different settings until you've achieved the desired sound.