

# STEREO TAPE HEAD PREAMPLIFIER FOR PC SOUND CARD

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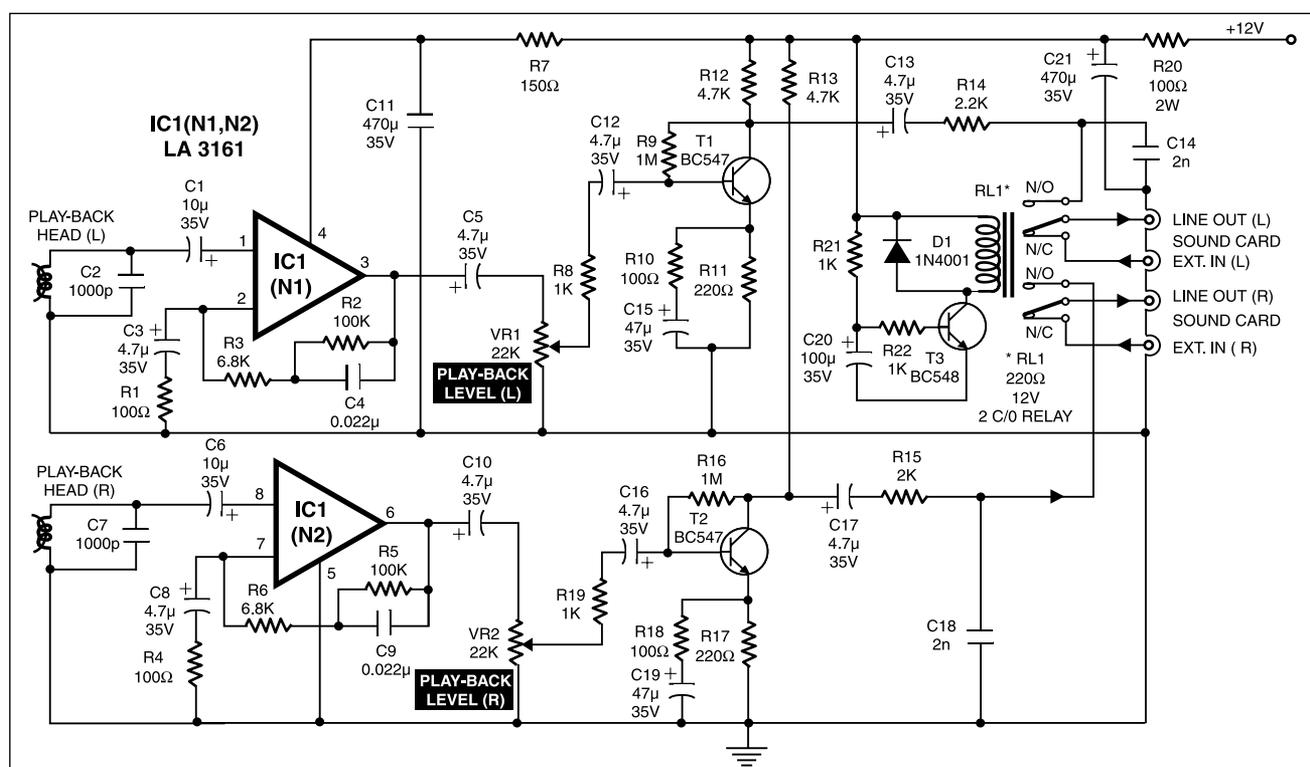
Here is a stereo tape head preamplifier circuit for your PC sound card that can playback your favourite audio cassette through the PC. Audio signals from this circuit can be di-

The amplified and equalised signals available at output pins 3 and 6 of IC1 are coupled to the inputs of line amplifier circuit built around transistors T1 (via capacitor C5, potmeter VR1, resistor R8, and

other audio device as well.

When the preamplifier is in 'off' state, switching relay RL1 is off and it allows connection of external signals to the sound card. When the preamplifier is turned 'on', the relay is energised by transistor T3 after a short delay determined by the values of resistor R21 and capacitor C23. On energisation, the relay contacts changeover the signals to internal source, i.e. the head preamplifier.

After constructing the whole circuit on a veroboard, enclose it in a mini metallic cabinet with level controls and sock-



rectly connected to the stereo-input (line-input) socket of the PC sound card for further processing.

The circuit is built around a popular stereo head preamp IC LA3161. Weak electrical signals from the playback heads are fed to pins 1 and 8 of IC1 via DC decoupling capacitors C1 and C6, respectively. Components between pins 2 and 3 and pins 6 and 7 provide adequate equalisation to the signals for a normal tape playback.

capacitor C12) and T2 (via capacitor C10, potmeter VR2, resistor R19, and capacitor C16), respectively. Left and right playback levels can be adjusted by variable resistors VR1 and VR2. The audio signals are finally available at the negative ends of capacitors C13 and C17.

The circuit wired around relay driver transistor T3 serves as a simple source selector. This is added deliberately to help the user share the common PC sound card line-input terminal for operating some

ets at suitable points. Use a regulated 1A, 12V DC power supply for powering the whole circuit including the tape deck mechanism. (A 1A, 18V AC secondary transformer with 4700 $\mu$ F, 40V electrolytic capacitor and 78M12 regulator is sufficient.)

You can use any kind of tape deck mechanism with this circuit. Use of good-quality playback head and well-screened wires are recommended.  $\square$