

Order No. R800 1450



The Phazer is an analogue phase correction device designed to time-align two signals so that the fundamental frequency of both signals play at the same time. For instance, you may have one microphone on the batter-head of a kick drum for more attack while a second mic may be on the outside the drum to add body. When the kick-pedal strikes the batter-head, the sound of the first head will occur slightly before the second. Delaying the sound of the first head so that both play at precisely the same moment will produce a fatter, richer tone. This same approach is particularly effective with guitar amplifiers when combining a direct feed from a guitar amp with a microphone on the cabinet or when combining two room mics such as a close mic on an acoustic guitar and a second mic to pick up the room ambience.

As it is physically impossible to time-align all frequencies due to each harmonic having a different wavelength, the Phazer must be heard to be effective. You have to use your ears. By listening to the tone as you rotate the phase control, you will 'hear' when both sounds come in focus and you find the sweet spot. As this is most evident when the lower fundamentals align, the Phazer is also equipped with a low pass filter that rolls off high frequencies above a variable cut-off point to help reduce phase anomalies in the upper spectrum. The Phazer is best viewed as a 'musical tool' that adds more character and impact to the musical palette.

Features

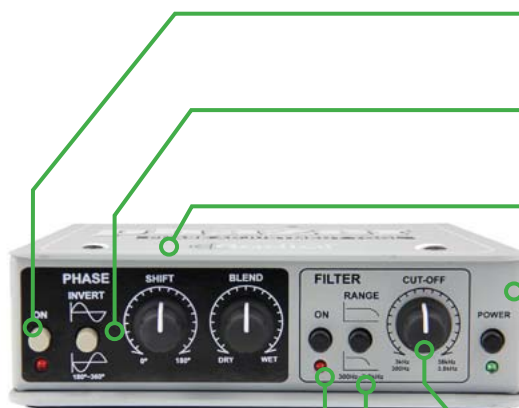
- Line-level I/O for mixer insert points
- Variable phase control with 0° to 360° of shift
- Low pass filter (high-cut) focuses bass response
- Bypass switch for A/B comparison
- Class-A circuit for transparent sound

Applications

- Phase aligns mic and direct box signals
- Corrects phase between spaced mics
- Use with JDX and mics for huge guitar sounds
- Bad-ass on bass and perfect for percussion

Cool stuff

- Saves tracks and editing time
- Intuitive and artistically invigorating
- Easy-to-use, just dial-in the sweet spot
- 3 year transferable warranty



- **PHASE ON** bypasses the phase-shift circuit for quick A/B comparison of phase effect.
- **SHIFT** used in conjunction with the PHASE control to access the 180° to 360° phase range.
- **PHASE ADJUST** rotation over a 180° range. Used with SHIFT control to cover full 360° rotation.
- **POWER** switch with LED indicator.
- **FILTER CUT-OFF** adjusts the filters variable cut-off point.
- **FILTER RANGE** selects the range of the filter. Choose between 300Hz: 3800Hz, or 3000Hz: 38,000kHz range.
- **FILTER ON** bypasses the low-pass filter for quick comparison of the un-filtered signal path.



- **TRS BALANCED** +4dB or unbalanced -10dB line-level I/O.
- **XLR BALANCED** +4dB line-level I/O. AES standard pin-2 hot.
- **GROUND LIFT** reduces noise caused by ground loops.

Phase Alignment Example

In this example a Radial direct box and microphone used to record an acoustic guitar to one track.

Diagram A shows the phase relationship between the DI and mic signals before phase correction. Because the direct box signal arrives at the mixing console first, followed by the mic signal a fraction of a second later, the fundamental root frequency of the two signals will invariably be out-of-phase by a small amount. This is called phase-shift and is measured in degrees from 0 to 360°. Mixing consoles have a polarity reverse switch that inverts the absolute phase between 0 and 180° but will not correct small amounts of phase-shift.

The Phazer is placed in the DI signal path at the console insert point and adjusted by ear. Diagram B shows the phase corrected signal. By correcting the phase the sound becomes fuller, more focused with tighter bass and a well defined transient attack. The Phazer features a bypass button so you can instantly compare the pre and post Phazer signal.

