Radial™ Smart Sheet

PHAZER BANK™ PHASE ALIGNMENT TOOL

Order No. R800 1460

The Phazer Bank, like the Radial Phazer, is an analogue phase adjustment tool that enables the engineer to effortlessly adjust the phase between two microphones or a microphone and a direct box to fatten tone or impose phase-based effects onto a track. The Phazer Bank is essentially four Phazers in a rackmount package. The 4-channel design allows the recording or live engineer to apply the Phazer's unique effect on several instruments like kick drum, bass guitar and electric guitar within a 1RU design with a single external power supply.

Each of the Phazer Bank's channels features 360° of phase adjust and low pass filter with adjustable cut-off. The phase and filter section include a bypass switch allowing each to be used separately. The low pass filter, when used in conjunction with the phase adjust, helps to focus the phase effect on the lowest fundamental frequency where the tone is fattest. Inputs and outputs are balanced low impedance line level XLR and ¼"TRS jacks. Construction is heavy-duty 14-gauge steel rack enclosure, steel standoffs and double sided PCB with full ground plane.

PHASE ON bypasses the phase-shift circuit for quick A/B comparison of phase effect.

INVERT selects the phase range. Choose between 0°~180° or 180°~360° ranges.

SHIFT used to adjust the phase shift. Works with the invert control to cover 360°.

14-GUAGE STEEL heavy-duty 1RU chassis protects a military grade PCB with full ground plane for high immunity to interference.

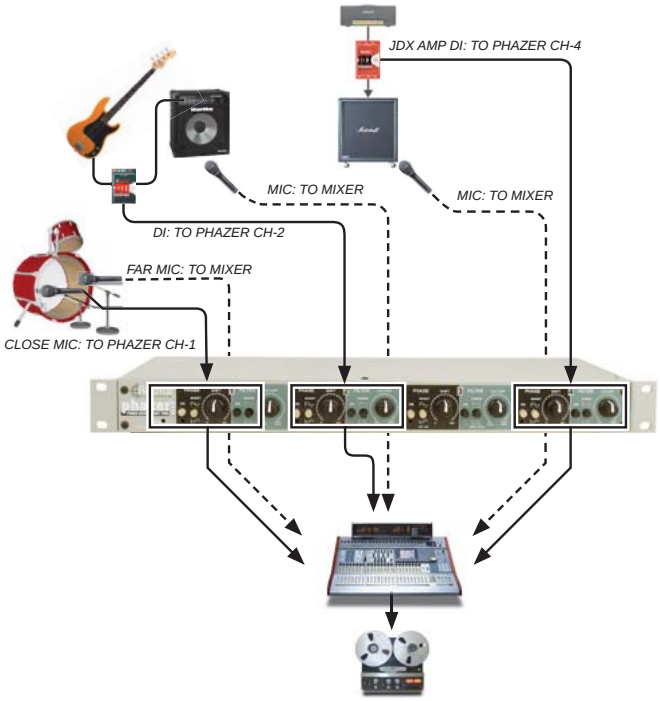
LINE-LEVEL I/O balanced XLR and ¼" TRS jacks are isolated from the chassis.

LIFT disconnects ground at the XLR and TRS outputs to eliminate noise caused by ground loops.

FILTER ON bypasses the low-pass filter for quick comparison of the un-filtered signal path.

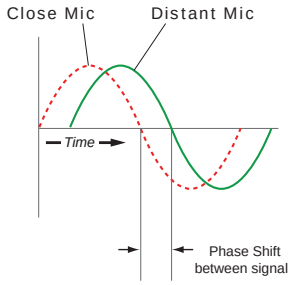
FILTER RANGE selects the range of the filter. Choose between 300Hz: 3800Hz, or 3000Hz: 38,000kHz range.

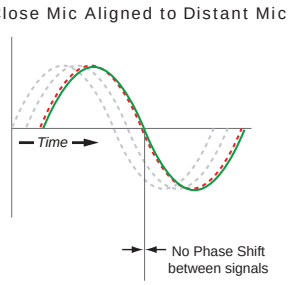
FILTER CUT-OFF adjusts the filters variable cut-off point.



The Phazer is a phase adjustment tool designed to allow the user to quickly time-align two sources to create fat rich tones or to open the audio landscape to all kinds of new and exciting sounds.

The concept is simple. When you have two microphones on a source, the sound source will first be captured by the nearest microphone to the source. A few microseconds later, the second microphone will capture the same sound. When both microphones are mixed together, the minute delay will cause phase cancellation.





The Phazer is used to dial out the cancellation at the fundamental frequency by slowing the signal of the closer mic. This approach is particularly effective when combining a close mic with a distant room mic or when combining a close microphone with a direct box signal.

In the application example the kick drum is getting tuned up to sound big and fat by phase aligning a close beater mic with a more distant mic placed just outside the shell. The bass guitar is also getting fatten but this time the instant direct box is slowed to phase match the mic on the player bass amp. The guitar rig is using the JDX amp DI and a mic to capture the tone of the amp and cab. This time however the Phazer is appled as an effect and used to shape the tone of the one-of-a-kind guitar sound.