

Tabitha and other Mid Side (MS) microphone decoding

The Mid Side microphone technique was invented in 1931. It uses a Cardioid or Omni microphone for the Middle or “Mid” and a figure 8 microphone for the Side or “S”. To decode MS, the Mid is panned equally to the right and the left. Then the Side is sent to two channels. One panned hard Left. The other is inverted in phase and panned hard Right. See the diagram below:

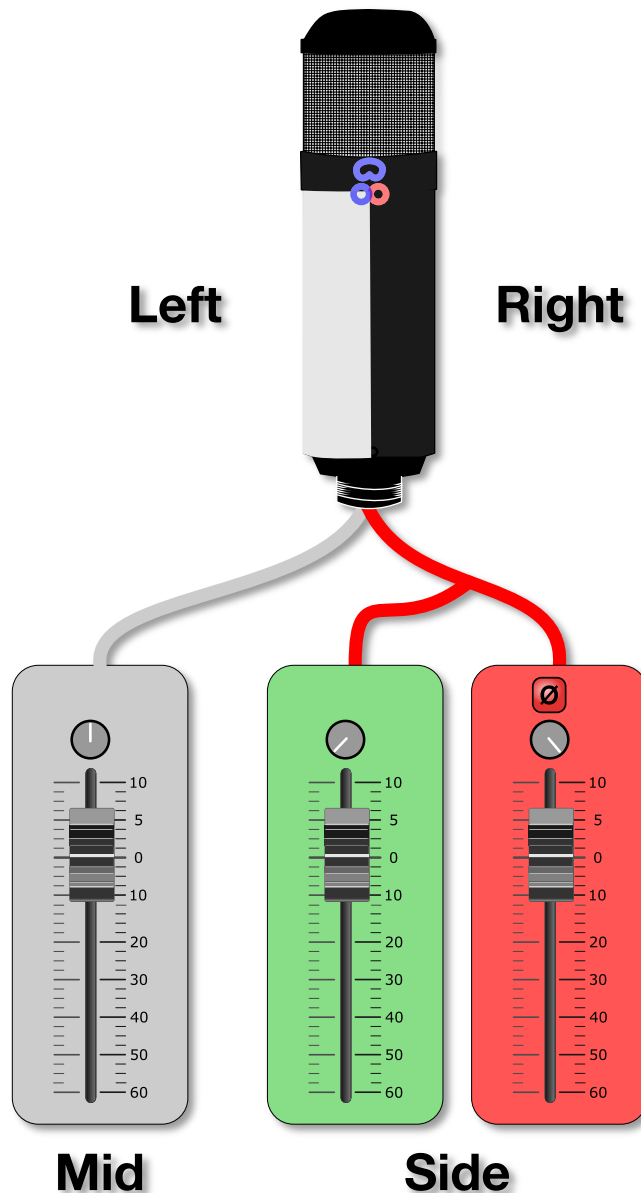


Figure 1 Mid Side Mix Diagram

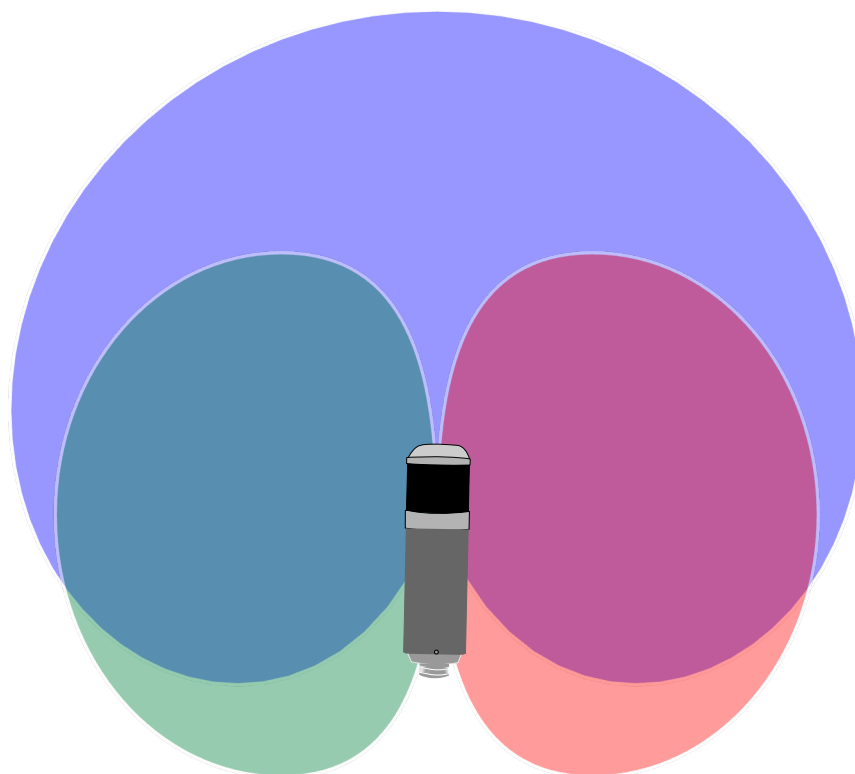


Figure 2 Mic Pattern Overlay for Mid Side

The stereo image in an MS (Mid-Side) recording can be shaped simply by adjusting the level of the Side signal. In the diagram above, the Mid signal is shown in blue, while the Side signal appears in the green-and-red pattern.

One of the strengths of MS—and a major reason for its popularity—is that it collapses perfectly to mono with no phase-related artifacts.

You can further refine the stereo width by raising or lowering the level of each Side component. Doing so shifts the Side pickup from a pure figure-8 toward a cardioid pattern that favors either the left or right side, depending on the balance.

For accurate stereo imaging, the in-phase lobe of the Side microphone should point to the left when viewed from behind the microphone.

A key advantage of the MS technique is that it allows you to adjust the stereo spread after recording, giving you complete control over the final image.