



Our Solitaire Monitor Controller features a so called PHASE button (the Oktopussy Controller uses a graphical symbol instead). Audio engineers will typically activate this function to check for imaging anomalies, mono compatibility and also to listen to the difference signal when combined with the MONO function (which is easily possible as all our monitor controllers have their PHASE circuit installed before the MONO circuit).

There's an ongoing discussion about whether the PHASE labeling of such a function is actually technically correct or not. In nearly any audio equipment those buttons will really just reverse the polarity of one channel (left or right). Technically, for only a very limited range of signals is this the same as a 180° phase shift, namely those that are completely symmetric to the time axis, like for example a sine wave.

The following figure compares a sine wave and a sawtooth wave to emphasize the essential difference:

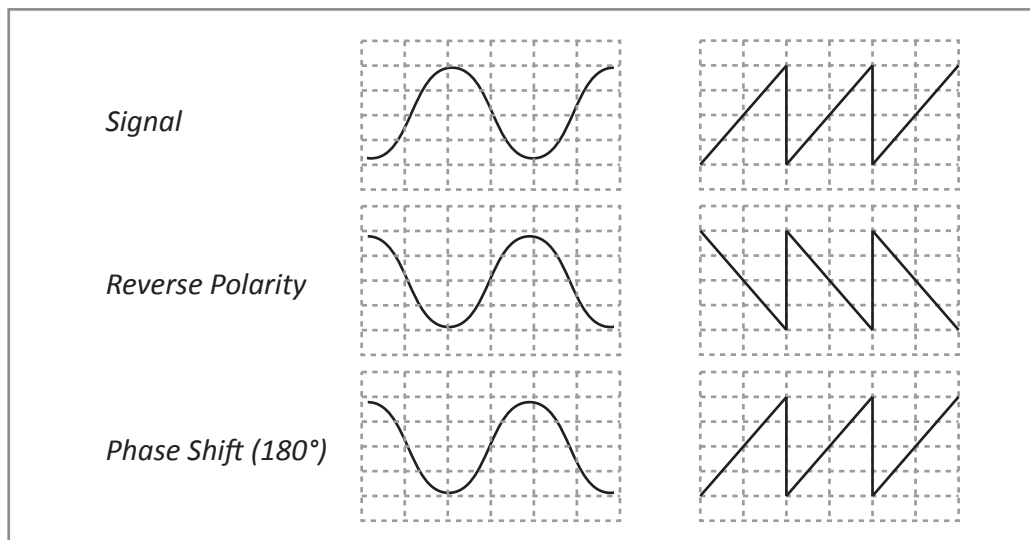


Fig.1 - Phase shift and reversed polarity

Obviously a phase shift of 180° can be completely different from reversed polarity, so everyone claiming that this is not the same thing is absolutely right. However there is more to it, since the label PHASE does not necessarily imply that we are talking about a phase *shift* here. In fact what's happening is a phase *inversion* (german: „Phasenumkehr“). A phase inversion inverts the phase along the Y axis, so it is the same as reversed polarity. It's both the exact same thing. Thus the labeling of any PHASE button is also correct because we are talking of a phase *inversion* and not of a phase *shift*. And that's why we won't change the labeling on our devices, nope.

*Note: We label our PHASE buttons PHASE buttons because they do a PHASE INVERSION.*